

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 501

TRT#: 1

SEX: Male

DAY ON TEST: 642

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-501

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Thyroid Gland
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Spinal Cord, Thoracic
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Hyperplasia
- * Brain
 - Compression
- * Heart
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- * Liver
 - Bile Duct
 - Hyperplasia
 - Hepatocyte
 - Vacuolation, Cytoplasmic
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Respirat Epith
 - Accumulation, Hyaline Droplet
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- Note: Majority of Level 3 absent.
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration
- * Pituitary Gland
 - Pars Distalis
 - Adenoma
- * Preputial Gland
 - [Adenoma TGLs = 2-4]
 - Duct
 - Dilation
 - Inflammation
- * Prostate
 - [Dilation TGLs = 3-16]
 - Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

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First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 501

TRT#: 1

SEX: Male

DAY ON TEST: 642

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-501

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------|----------------|--------------|--------------------------|
| * Salivary Glands | Parotid GI | Atrophy | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Marked |
| | | Inflammation | Chronic Active, Moderate |
| | | Ulcer | Mild |
| * Testis | Interstit Cell | Hyperplasia | Minimal |
| * Thymus | | Atrophy | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 502

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-502

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Islets, Pancreatic
- * Trachea
- * Bone
- * Intestine Large, Rectum
- * Mammary Gland
- * Urinary Bladder
- * Brain
- * Intestine Small, Duodenum
- * Skin
- * Esophagus
- * Intestine Small, Jejunum
- * Stomach, Forestomach

MISSING

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Necrosis
 - * Adrenal Medulla
 - Bilateral
 - [Pheochromocytoma Benign TGLs = 4,5-7]
 - Pheochromocytoma Benign
 - * Bone Marrow
 - Hypercellularity
 - * Epididymis
 - Exfoliated Germ Cell
 - Hypospermia
 - * Eye
 - Cornea, Epithelium
 - Cornea
 - Cornea
 - Hyperplasia
 - Inflammation
 - Neovascularization
 - * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
 - * Intestine Large, Cecum
 - Artery
 - Inflammation
 - * Intestine Large, Colon
 - Artery
 - Inflammation
 - * Intestine Small, Ileum
 - Artery
 - Inflammation
 - * Kidney
 - [Nephropathy TGLs = 6,7,8,10-13]
 - Nephropathy
 - * Liver
 - Bile Duct
 - Hyperplasia
 - * Lung
 - Alveolus
 - Infiltration Cellular
 - Lymph Node
 - Mediastinal
 - Erythrophagocytosis
 - * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- [Hyperplasia TGLs = 12-9]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 502

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-502

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|--------------------------|
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Minimal |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | Respirat Epith | Hyperplasia | Goblet Cell, Minimal |
| * Pancreas | Acinus | Hyperplasia | Moderate |
| | Artery | Inflammation | Chronic Active, Moderate |
| | [Hyperplasia TGLs = 16-6] | | |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| | [Hyperplasia TGLs = 14-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Craniophar Dct | Cyst | |
| | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| | Note: One of pair available for evaluation. | | |
| | [Dilation TGLs = 1,2-16] | | |
| * Prostate | | Inflammation | Chronic Active, Minimal |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| | [Decreased Secretory Fluid TGLs = 11-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Hyperplasia | Lymphocyte, Minimal |
| | | Pigment | Mild |
| * Stomach, Glandular | Artery | Inflammation | Chronic Active, Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 502

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-502

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|-----------|--------------|------------------------|
| * Testis | Germ Cell | Degeneration | Moderate |
| | Artery | Inflammation | Chronic Active, Marked |
| [Degeneration TGLs = 3-16A] | | | |
| * Thymus | | Atrophy | Moderate |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |

Animal Note: TGL 13 = NCL (No Corresponding Lesion)

Animal Note: TGL 15 = NCL

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 503

TRT#: 1

SEX: Male

DAY ON TEST: 590

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-503

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|--------------------------|----------------------------|----------------------|
| * Bone Marrow | * Brain | * Esophagus | * Harderian Gland |
| * Intestine Large, Rectum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Liver | * Lung | * Lymph Node, Mandibular | * Mammary Gland |
| * Prostate | * Salivary Glands | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

AUTO PRECLUDES DIAG.

- * Intestine Small, Duodenum

OBSERVATIONS

- | | | | |
|---|--------------------|------------------------|-------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| * Adrenal Medulla | | Hyperplasia | Mild |
| * Aorta | | Mineral | Mild |
| * Bone | | Fibrous Osteodystrophy | Minimal |
| * Brain | | | |
| Note: Olfactory bulbs not available for evaluation. | | | |
| * Epididymis | | Exfoliated Germ Cell | Moderate |
| | | Hypospermia | Moderate |
| | Artery | Inflammation | Chronic Active, Mild |
| * Eye | Cornea, Epithelium | Hyperplasia | Mild |
| | Cornea | Inflammation | Acute, Mild |
| | Cornea | Neovascularization | Minimal |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| | Artery | Mineral | Mild |
| * Intestine Large, Cecum | Artery | Inflammation | Chronic Active, Minimal |
| | Epithelium | Regeneration | Mild |
| | | Ulcer | Minimal |
| * Intestine Large, Colon | Artery | Inflammation | Chronic Active, Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Marked |

[Nephropathy TGLs = 2,3-13]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 503

TRT#: 1

SEX: Male

DAY ON TEST: 590

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-503

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-----------------|-------------------------------|-------------------------|
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Mild |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| | Artery | Mineral | Mild |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Minimal |
| | Artery | Inflammation | Chronic Active, Minimal |
| * Parathyroid Gland | | Hyperplasia | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| [Decreased Secretory Fluid | TGLs = 4-16] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Pigment | Mild |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Moderate |
| | Artery | Inflammation | Chronic Active, Mild |
| [Degeneration | TGLs = 10-16A] | | |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 1,5,6 = NCL (No Corresponding Lesion)

Animal Note: TGLs 7,8 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 504

TRT#: 1

SEX: Male

DAY ON TEST: 294

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-504

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|-----------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Brain | * Epididymis | * Esophagus |
| * Eye | * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Mammary Gland | * Nerve Trigeminal |
| * Pancreas | * Parathyroid Gland | * Peripheral Nerve, Sciatic | * Peripheral Nerve, Tibial |
| * Pituitary Gland | * Preputial Gland | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Spinal Cord, Lumbar |
| * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular | * Testis |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

MISSING

Trigeminal Ganglion

AUTO PRECLUDES DIAG.

* Intestine Small, Ileum

OBSERVATIONS

- | | | | |
|----------------|---|-------------------------------|-------------------------|
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| * Lung | | Congestion | Moderate |
| | [Congestion TGLs = 1 - 10] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| | Olfactory Epi | Metaplasia | Respiratory, Minimal |
| * Preputial GI | | | |
| | Note: One of pair available for evaluation. | | |
| * Prostate | | Inflammation | Chronic Active, Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Hemorrhage | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 504

TRT#: 1

SEX: Male

DAY ON TEST: 294

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-504

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Animal Note: TGL 2 = NCL

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 506

TRT#: 1

SEX: Male

DAY ON TEST: 655

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-506

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|---------------------------|-----------------------------|--------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Lymph Node, Mesenteric | * Mammary Gland | * Pituitary Gland | * Salivary Glands |
| * Seminal Vesicle | Skeletal Muscle | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Thyroid Gland | * Trachea | * Urinary Bladder |

INSUFFICIENT TISSUE

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|--------------------------------|---------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Vacuolation, Cytoplasmic | Minimal |
| * Adrenal Medulla | | Pheochromocytoma Benign | |
| * Epididymis | | Hypospermia | Marked |
| Note: One epididymis normal. | | | |
| * Heart | | Cardiomyopathy | Moderate |
| | Ventricle Rgt | Cardiomyopathy | Mild |
| * Intestine Small, Jejunum | | Adenocarcinoma | |
| [Adenocarcinoma TGLs = 2-14] | | | |
| * Islets, Pancreatic | | Hyperplasia | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| [Nephropathy TGLs = 6-13] | | | |
| * Liver | | Extramedullary Hematopoiesis | Mild |
| | | Mixed Cell Focus | |
| * Lung | | Congestion | Mild |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | | Adenoma | Multiple |
| | Acinus | Hyperplasia | Marked |
| [Adenoma TGLs = 1,7-6,14] | | | |
| * Parathyroid Gland | | Hyperplasia | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 506

TRT#: 1

SEX: Male

DAY ON TEST: 655

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-506

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|-------------|---------------------------------|----------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Testis | Germ Cell | Degeneration | Moderate |
| | Rete Testis | Dilation | Mild |
| Note: One testis normal. | | | |
| | | [Degeneration TGLs = 3,5-16A] | |
| | | [Dilation TGLs = 4-16A] | |
| * Thymus | | Atrophy | Minimal |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 509

TRT#: 1

SEX: Male

DAY ON TEST: 681

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-509

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone Marrow
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skin
- * Trachea
- * Esophagus
- * Intestine Small, Duodenum
- * Lung
- * Spinal Cord, Thoracic
- * Urinary Bladder
- * Harderian Gland
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Stomach, Forestomach
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Mammary Gland
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Necrosis
 - Vacuolation, Cytoplasmic
 Minimal
- * Adrenal Medulla
 - Hyperplasia
 Minimal
- * Aorta
 - Mineral
 Moderate
- [Mineral TGLs = 5-11]
- * Bone
 - Fibrous Osteodystrophy
 Minimal
- * Brain
 - Necrosis
 Minimal
- * Epididymis
 - Exfoliated Germ Cell
 - Hypospermia
 Moderate
- [Hypospermia TGLs = 13-16A]
- * Eye
 - Cornea
 - Cornea
 Inflammation
 - Neovascularization
 Acute, Mild
- * Heart
 - Ventricl Rgt
 - Myocardium
 - Artery
 Cardiomyopathy
 - Mineral
 - Mineral
 Marked
 - Mild
 - Moderate
- [Cardiomyopathy TGLs = 8-12]
- * Intestine Large, Colon
 - Artery
 Mineral
 - Cyst
 - Nephropathy
 Mild
 - Chronicprogr, Marked
- * Kidney
 - Renal Tubule
- [Cyst TGLs = 1,2,3-13,20]
- [Nephropathy TGLs = 6,7-13]
- * Liver
 - Hepatocyte
 Vacuolation, Cytoplasmic
 - Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 509

TRT#: 1

SEX: Male

DAY ON TEST: 681

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-509

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|-------------------------------|----------------------|
| Lymph Node [Erythrophagocytosis TGLs = 4-6] | Pancreatic | Erythrophagocytosis | Mild |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Mild |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| | Artery | Mineral | Moderate |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Atrophy | Minimal |
| | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland [Hyperplasia TGLs = 9-8] | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Intermed | Cyst | |
| | Pars Intermed | Hyperplasia | Moderate |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Mild |
| [Dilation TGLs = 10-16] | | | |
| * Prostate | | Decreased Secretory Fluid | Mild |
| [Decreased Secretory Fluid TGLs = 12-16] | | | |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| [Decreased Secretory Fluid TGLs = 14-16] | | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Moderate |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 509

TRT#: 1

SEX: Male

DAY ON TEST: 681

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-509

ORGAN AND ACCOUNTABLE SITE STATUS

| | | |
|--------------------------------|--------------|--------------------------|
| Artery | Inflammation | Chronic Active, Moderate |
| [Degeneration TGLs = 11-16A] | | |
| * Thymus | Atrophy | Marked |
| Trigeminal Ganglion | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 15,16 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 510

TRT#: 1

SEX: Male

DAY ON TEST: 691

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-510

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Lymph Node, Mandibular | * Mammary Gland | * Parathyroid Gland |
| * Prostate | * Salivary Glands | * Spinal Cord, Cervical | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- * Nerve Trigeminal

OBSERVATIONS

- | | | | |
|-----------------------------|----------------------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Vacuolation, Cytoplasmic | Mild |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricle Rgt | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Carcinoma | |
| | [Carcinoma TGLs = 4-6] | | |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Liver | | Infiltration Cellular | Mixed Cell, Minimal |
| | | Mixed Cell Focus | |
| | Hepatocyte | Vacuolation, Cytoplasmic | Minimal |
| * Lung | | Congestion | Mild |
| | [Congestion TGLs = 3-10] | | |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Mild |

Note: One of pair available for evaluation.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 510

TRT#: 1

SEX: Male

DAY ON TEST: 691

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-510

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|---------------------------|----------|
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| [Decreased Secretory Fluid | TGLs = 2-16] | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Skin | | Keratoacanthoma | |
| [Keratoacanthoma | TGLs = 1-20] | | |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Minimal |
| | | Pigment | Moderate |
| * Stomach, Forestomach | | Edema | Mild |
| | Epithelium | Hyperplasia | Mild |
| | | Ulcer | Mild |
| * Testis | Germ Cell | Degeneration | Mild |
| * Thymus | | Atrophy | Moderate |

PRIMARY CAUSE OF DEATH - Islets, Pancreatic Carcinoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 511

TRT#: 1

SEX: Male

DAY ON TEST: 580

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-511

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Esophagus
- * Intestine Small, Ileum
- * Lung
- * Pituitary Gland
- * Thyroid Gland
- * Harderian Gland
- * Intestine Small, Jejunum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Trachea
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Mammary Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Intestine Small, Duodenum
- * Liver
- * Peripheral Nerve, Sciatic
- * Stomach, Forestomach

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Epididymis
- * Eye
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Kidney
- * Lymph Node, Mesenteric
- Mesentery
- Pineal Gland
- Retina
- Cornea, Epithelium
- Cornea
- Ventricl Rgt
- Myocardium
- Artery
- Artery
- Artery
- Renal Tubule
- Artery
- Hyperplasia
- Hyperplasia
- Mineral
- Fibrous Osteodystrophy
- Hypercellularity
- Necrosis
- Vacuolation, Cytoplasmic
- Exfoliated Germ Cell
- Hypospermia
- Degeneration
- Hyperplasia
- Inflammation
- Cardiomyopathy
- Cardiomyopathy
- Mineral
- Mineral
- Inflammation
- Inflammation
- Hyperplasia
- Nephropathy
- Infiltration Cellular
- Inflammation
- Minimal
- Minimal
- Moderate
- Minimal
- Minimal
- Mild
- Moderate
- Moderate
- Mild
- Mild
- Mild
- Moderate
- Acute, Moderate
- Marked
- Minimal
- Mild
- Marked
- Chronic Active, Mild
- Chronic Active, Mild
- Oncocytic, Minimal
- Chronicprogr, Marked
- Polymorphnuclr, Mild
- Chronic Active, Mild

[Cardiomyopathy TGLs = 5,6-11]

[Nephropathy TGLs = 1,7,9-13]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 511

TRT#: 1

SEX: Male

DAY ON TEST: 580

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-511

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---|-------------------------------|--------------------------|
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| | | Inflammation | Suppurative, Minimal |
| * Pancreas | | Adenoma | |
| | Acinus | Atrophy | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| | Artery | Mineral | Mild |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | | Atrophy | Mild |
| | | Inflammation | Chronic Active, Mild |
| | [Atrophy TGLs = 8-16] | | |
| * Prostate | | Inflammation | Chronic Active, Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| | [Decreased Secretory Fluid TGLs = 4-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | | Cyst Epithelial Inclusion | |
| | [Cyst Epithelial Inclusion TGLs = 2-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| | [Degeneration TGLs = 3-16A] | | |
| * Thymus | | Atrophy | Marked |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 513

TRT#: 1

SEX: Male

DAY ON TEST: 527

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-513

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|-----------------------------|----------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Epididymis | * Esophagus | * Harderian Gland |
| * Heart | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Mammary Gland | * Pancreas |
| * Parathyroid Gland | * Peripheral Nerve, Tibial | * Preputial Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Thyroid Gland | * Trachea | * Urinary Bladder |

AUTO PRECLUDES DIAG.

- | | | | |
|----------------------------|--------------------------|--------------------------|--------------------------|
| * Eye | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | | | |

INSUFFICIENT TISSUE

- | | |
|--------------------|---------------------|
| * Nerve Trigeminal | Trigeminal Ganglion |
|--------------------|---------------------|

OBSERVATIONS

- | | | | |
|-----------------------------|----------------------------------|-------------------------------|---------------------|
| * Brain | | Mineral | Minimal |
| * Kidney | Renal Tubule | Adenoma | |
| | Bilateral, Renal Tubule | Carcinoma | |
| | Renal Tubule | Cyst | |
| | Renal Tubule | Hyperplasia | Atypical, Mild |
| | [Carcinoma TGLs = 4,6,7-13,21] | | |
| | [Cyst TGLs = 5-20] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| * Lung | | Congestion | Mild |
| | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Congestion TGLs = 1-10] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 8-4] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 513

TRT#: 1

SEX: Male

DAY ON TEST: 527

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-513

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------------|-------|--------------|----------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Pigment | Moderate |
| * Thymus | | Atrophy | Moderate |
| | | Hemorrhage | Mild |
| [Atrophy TGLs = 3-6] | | | |
| [Hemorrhage TGLs = 2-6] | | | |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 514

TRT#: 1

SEX: Male

DAY ON TEST: 541

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-514

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|-----------------------------|-------------------------------------|
| * Pituitary Gland [Adenoma TGLs = 6-4] | Pars Distalis | Adenoma | |
| * Preputial Gland | Duct | Dilation Inflammation | Moderate Chronic Active, Mild |
| * Prostate | | Infiltration Cellular | Mononuclear CI, Mild |
| * Salivary Glands | Parotid GI | Atrophy | Moderate |
| * Seminal Vesicle [Decreased Secretory Fluid TGLs = 5-16] | | Decreased Secretory Fluid | Moderate |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spleen [Hemangiosarcoma TGLs = 1,2-12,20] | | Hemangiosarcoma | |
| * Stomach, Forestomach | | Edema | Mild |
| | Epithelium | Hyperplasia Inflammation | Moderate Chronic Active, Minimal |
| * Stomach, Glandular | | Erosion | Mild |
| * Testis | Germ Cell | Degeneration Pigment | Minimal Minimal |
| * Thymus | | Atrophy | Moderate |
| * Thyroid Gland | C Cell | Carcinoma | |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH - Spleen Hemangiosarcoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 515

TRT#: 1

SEX: Male

DAY ON TEST: 654

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-515

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Prostate
- * Skin
- * Testis
- * Aorta
- * Esophagus
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Cervical
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Small, Ileum
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder

MISSING

- * Parathyroid Gland

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Large, Cecum

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Heart
- * Kidney
- [Adenoma TGLs = 3-13,22.1RC]
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 4-10]
- Lymph Node
- [Hemorrhage TGLs = 13,14-6]
- [Hemorrhage TGLs = 1,2-22.1]
- * Lymph Node, Mandibular
- * Nerve Trigeminal
- * Nose
- * Peripheral Nerve, Sciatic
- Adenoma
- Hypercellularity
- Cardiomyopathy
- Adenoma
- Nephropathy
- Necrosis
- Infiltration Cellular
- Hemorrhage
- Hemorrhage
- Proliferation
- Degeneration
- Accumulation, Hyaline Droplet
- Degeneration
- Bilateral, Renal Tubule
- Hepatocyte
- Alveolus
- Pancreatic
- Mediastinal
- Olfactory Epi
- Marked
- Minimal
- Multiple
- Chronicprogr, Minimal
- Mild
- Histiocyte, Moderate
- Mild
- Moderate
- Plasma Cell, Mild
- Minimal
- Moderate
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 515

TRT#: 1

SEX: Male

DAY ON TEST: 654

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-515

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|-----------------|----------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 7-4] | | | |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| [Inflammation TGLs = 6-16] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Hemangiosarcoma | |
| [Hemangiosarcoma TGLs = 9,20.1RC,21] | | | |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Carcinoma | |
| [Carcinoma TGLs = 12-8] | | | |

PRIMARY CAUSE OF DEATH - Kidney Bilateral Renal Tubule Adenoma

CONTRIBUTORY CAUSE OF DEATH - Spleen Hemangiosarcoma

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Animal Note: TGL 8 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 516

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-516

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Lung
- * Prostate
- * Skin
- * Thyroid Gland
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Cervical
- * Trachea
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Forestomach
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Brain
 - Mineral
- * Harderian Gland
 - Atrophy
- * Heart
 - Cardiomyopathy
 - Ventricl Rgt
 - Cardiomyopathy
 - Adenoma
- * Islets, Pancreatic
 - Nephropathy
- * Kidney
 - Chronicprogr, Moderate
 - Clear Cell Focus
- * Liver
 - Bile Duct
 - Hyperplasia
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Foreign Body
 - Respirat Epith
 - Hyperplasia
 - Inflammation
- * Pancreas
 - Adenoma
 - Acinus
 - Hyperplasia
 - Artery
 - Inflammation

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 516

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-516

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLs = 2-20]

| | | | |
|---|---------------|------------------------------|--------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | | Inflammation | Granulomatous, Marked |
| Note: One of pair available for evaluation. | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Mild |

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 517

TRT#: 1

SEX: Male

DAY ON TEST: 677

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-517

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Seminal Vesicle
- * Trachea
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Lung
- * Parathyroid Gland
- * Stomach, Glandular
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Prostate
- * Testis
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Ileum
- * Mammary Gland
- * Salivary Glands
- * Thyroid Gland

INSUFFICIENT TISSUE

- * Peripheral Nerve, Tibial

OBSERVATIONS

- * Adrenal Cortex
Ductus Deferens
[Granuloma TGLs = 1,2,3-20,21,22]
- * Epididymis
- * Heart
- * Intestine Small, Duodenum
- * Islets, Pancreatic
[Carcinoma TGLs = 8-22]
- * Kidney
[Nephropathy TGLs = 4-13]
- * Liver
[Clear Cell Focus TGLs = 5-12]
- * Lymph Node, Mandibular
- * Nose
- * Pancreas
- * Peripheral Nerve, Sciatic
- * Pituitary Gland
- * Preputial Gland
- Hyperplasia
- Granuloma
- Exfoliated Germ Cell
- Cardiomyopathy
- Ulcer
- Carcinoma
- Nephropathy
- Basophilic Focus
- Clear Cell Focus
- Ectasia
- Hyperplasia
- Accumulation, Hyaline Droplet
- Hyperplasia
- Degeneration
- Hyperplasia
- Dilation
- Mild
- Marked
- Minimal
- Minimal
- Moderate
- Chronicprogr, Moderate
- Moderate
- Lymphocyte, Mild
- Mild
- Moderate
- Moderate
- Marked
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 517

TRT#: 1

SEX: Male

DAY ON TEST: 677

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-517

ORGAN AND ACCOUNTABLE SITE STATUS

[Dilation TGLs = 6-20]

Skeletal Muscle

Degeneration

Moderate

[Degeneration TGLs = 9-11]

* Skin

Keratoacanthoma

[Keratoacanthoma TGLs = 7-21]

* Spinal Cord, Cervical

Degeneration

Minimal

* Spinal Cord, Lumbar

Nerve

Degeneration

Moderate

* Spinal Cord, Thoracic

Degeneration

Mild

* Spleen

Extramedullary Hematopoiesis

Minimal

* Stomach, Forestomach

Epithelium

Hyperplasia

Marked

Inflammation

Chronic Active, Moderate

* Thymus

Atrophy

Moderate

Trigeminal Ganglion

Degeneration

Minimal

* Urinary Bladder

Muscularis

Degeneration

Minimal

PRIMARY CAUSE OF DEATH

- Islets, Pancreatic Carcinoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 518

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-518

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Prostate
- * Skin
- * Testis
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Salivary Glands
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Seminal Vesicle
- * Stomach, Forestomach
- * Trachea
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Pituitary Gland
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder

INSUFFICIENT TISSUE

- * Thymus
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Heart
- * Kidney
- * Liver
- * Lung
- * Nerve Trigeminal
- * Nose
- * Pancreas
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Preputial Gland
- * Spinal Cord, Lumbar
- * Spinal Cord, Thoracic
- Hyperplasia
- Hyperplasia
- Cardiomyopathy
- Cardiomyopathy
- Nephropathy
- Mixed Cell Focus
- Infiltration Cellular
- Degeneration
- Accumulation, Hyaline Droplet
- Hyperplasia
- Degeneration
- Degeneration
- Inflammation
- Degeneration
- Degeneration
- Mild
- Minimal
- Mild
- Minimal
- Chronicprogr, Mild
- Histiocyte, Minimal
- Minimal
- Mild
- Moderate
- Moderate
- Moderate
- Chronic Active, Moderate
- Moderate
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 518

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-518

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Extramedullary Hematopoiesis

Minimal

Pigment

Minimal

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 519

TRT#: 1

SEX: Male

DAY ON TEST: 498

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-519

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Harderian Gland
- * Intestine Small, Jejunum
- * Lymph Node, Mandibular
- * Prostate
- * Skin
- * Trachea
- * Bone Marrow
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Mammary Gland
- * Salivary Glands
- * Spinal Cord, Cervical
- Trigeminal Ganglion
- * Esophagus
- * Intestine Small, Duodenum
- * Liver
- * Nerve Trigeminal
- * Seminal Vesicle
- * Spinal Cord, Thoracic
- * Urinary Bladder
- * Eye
- * Intestine Small, Ileum
- * Lung
- * Pituitary Gland
- Skeletal Muscle
- * Stomach, Forestomach

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Mild
- * Aorta
 - Hypertrophy
 - Mild
- * Bone
 - Mineral
 - Moderate
- * Brain
 - Meninges
 - Fibrous Osteodystrophy
 - Minimal
- * Epididymis
 - Hyperplasia
 - Minimal
 - Exfoliated Germ Cell
 - Marked
 - Hypospermia
 - Marked
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Moderate
- * Intestine Large, Cecum
 - Artery
 - Cardiomyopathy
 - Minimal
 - Inflammation
 - Chronic Active, Moderate
 - Inflammation
 - Acute, Moderate
 - Ulcer
 - Moderate
- [Ulcer TGLs = 5-15]
- * Intestine Large, Rectum
 - Epithelium
 - Regeneration
 - Mild
- * Kidney
 - Nephropathy
 - Chronicprogr, Marked
- [Nephropathy TGLs = 7-13]
- Lymph Node
 - Renal
 - Erythrophagocytosis
 - Moderate
- [Erythrophagocytosis TGLs = 8,9-20]
- * Lymph Node, Mesenteric
 - Erythrophagocytosis
 - Minimal
 - Infiltration Cellular
 - Polymorphnuclr, Mild
- Mesentery
 - Artery
 - Inflammation
 - Chronic Active, Mild
 - Inflammation
 - Chronic, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 519

TRT#: 1

SEX: Male

DAY ON TEST: 498

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-519

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------|-------------------------------|------------------------|
| | Artery | Mineral | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Minimal |
| | Artery | Inflammation | Chronic Active, Marked |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Moderate |
| | | Pigment | Mild |
| | [Atrophy TGLs = 6-12] | | |
| * Stomach, Glandular | | Mineral | Mild |
| * Testis | Germ Cell | Degeneration | Moderate |
| * Thymus | | Atrophy | Marked |
| | [Atrophy TGLs = 1-6] | | |
| * Thyroid Gland | C Cell | Adenoma | |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 2,3,4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 520

TRT#: 1

SEX: Male

DAY ON TEST: 563

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-520

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Lung
- * Preputial Gland
- * Skin
- * Thyroid Gland
- * Aorta
- * Eye
- * Lymph Node, Mandibular
- * Prostate
- * Spinal Cord, Cervical
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Mammary Gland
- * Salivary Glands
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Brain
- * Islets, Pancreatic
- * Pituitary Gland
- Skeletal Muscle
- * Stomach, Forestomach
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Intestine Large, Rectum
- * Stomach, Glandular
- * Intestine Small, Duodenum

OBSERVATIONS

- * Adrenal Cortex
 - * Bone
 - * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
 - * Epididymis
 - * Heart
 - * Kidney
 - [Nephropathy TGLs = 1-13]
 - * Liver
 - * Lymph Node, Mesenteric
 - Mesentery
 - * Nerve Trigeminal
 - * Nose
 - * Pancreas
 - * Parathyroid Gland
 - * Peripheral Nerve, Sciatic
 - * Peripheral Nerve, Tibial
 - * Seminal Vesicle
- | | | |
|--------------|-------------------------------|----------------------|
| | Hyperplasia | Minimal |
| | Fibrous Osteodystrophy | Minimal |
| | Exfoliated Germ Cell | Moderate |
| | Cardiomyopathy | Mild |
| Ventricl Rgt | Cardiomyopathy | Minimal |
| | Nephropathy | Chronicprogr, Marked |
| | Eosinophilic Focus | |
| | Erythrophagocytosis | Mild |
| | Mineral | Mild |
| | Degeneration | Moderate |
| | Accumulation, Hyaline Droplet | Mild |
| | Hyperplasia | Moderate |
| | Mineral | Mild |
| | Hyperplasia | Moderate |
| | Degeneration | Minimal |
| | Degeneration | Mild |
| | Decreased Secretory Fluid | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 520

TRT#: 1

SEX: Male

DAY ON TEST: 563

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-520

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------|------------|--------------|--------------------------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 2,3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 521

TRT#: 1

SEX: Male

DAY ON TEST: 552

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-521

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Prostate
- * Stomach, Forestomach
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Thyroid Gland
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea
- * Harderian Gland
- * Intestine Small, Ileum
- * Mammary Gland
- * Spinal Cord, Thoracic
- * Urinary Bladder

INSUFFICIENT TISSUE

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|--------------------------|-------------------------------------|--------------------------|----------------------|
| * Adrenal Cortex | | Vacuolation, Cytoplasmic | Minimal |
| * Adrenal Medulla | | Hyperplasia | Marked |
| * Aorta | | Mineral | Mild |
| * Bone | | Fibrous Osteodystrophy | Minimal |
| * Brain | Pineal Gland | Vacuolation, Cytoplasmic | Marked |
| * Epididymis | | Exfoliated Germ Cell | Moderate |
| * Heart | | Cardiomyopathy | Moderate |
| | Ventricle Rgt | Cardiomyopathy | Minimal |
| | Artery | Mineral | Mild |
| * Intestine Large, Cecum | | Edema | Minimal |
| | Artery | Inflammation | Chronic Active, Mild |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 4-13] | | |
| * Liver | | Eosinophilic Focus | |
| | | Mixed Cell Focus | |
| * Lung | | Hemorrhage | Mild |
| Lymph Node | Mediastinal | Erythrophagocytosis | Mild |
| | [Erythrophagocytosis TGLs = 1-20] | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| Mesentery | | Hemorrhage | Moderate |
| | Artery | Inflammation | Chronic Active, Mild |
| | Artery | Mineral | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 521

TRT#: 1

SEX: Male

DAY ON TEST: 552

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-521

ORGAN AND ACCOUNTABLE SITE STATUS

[Hemorrhage TGLs = 2-20]

| | | | |
|-----------------------------|---|-------------------------------|----------------------|
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Minimal |
| | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Intermed | Cyst | |
| * Preputial Gland | Duct | Dilation | Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| | [Decreased Secretory Fluid TGLs = 3-16] | | |
| * Skin | | Keratoacanthoma | |
| | [Keratoacanthoma TGLs = 5-20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Pigment | Mild |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Mild |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 522

TRT#: 1

SEX: Male

DAY ON TEST: 719

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-522

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Prostate
- * Thyroid Gland
- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Spinal Cord, Cervical
- * Trachea
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Stomach, Forestomach
- * Urinary Bladder
- * Harderian Gland
- * Intestine Small, Duodenum
- * Mammary Gland
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Necrosis Mild
 - Vacuolation, Cytoplasmic Mild
- * Adrenal Medulla
 - Hyperplasia Marked
- * Bone
 - Fibrous Osteodystrophy Minimal
- * Brain
 - Chor Plexus
 - Degeneration Mild
 - Mineral Minimal
- * Epididymis
 - Exfoliated Germ Cell Minimal
 - Hypospermia Marked
- * Eye
 - [Hypospermia TGLs = 3-16A]
 - Antr Chamber
 - Inflammation Acute, Minimal
 - Cornea
 - Inflammation Acute, Minimal
 - Retinal Detachment Moderate
- * Heart
 - Cardiomyopathy Minimal
- * Kidney
 - Ventricle Rgt
 - Cardiomyopathy Minimal
 - Nephropathy Chronicprogr, Marked
 - [Nephropathy TGLs = 4-13]
- * Liver
 - Eosinophilic Focus
 - Bile Duct
 - Hyperplasia Minimal
 - Hepatocyte
 - Vacuolation, Cytoplasmic Minimal
- * Lung
 - Alveolus
 - Hemorrhage Minimal
 - Infiltration Cellular Histiocyte, Minimal
 - [Infiltration Cellular TGLs = 5-10]
- Lymph Node
 - Iliac, Lymph Sinus
 - Ectasia Minimal
 - Mediastinal
 - Erythrophagocytosis Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 522

TRT#: 1

SEX: Male

DAY ON TEST: 719

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-522

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|-------------------------------|--------------------------|
| | Renal | Erythrophagocytosis | Mild |
| | Iliac | Erythrophagocytosis | Minimal |
| | Renal | Proliferation | Plasma Cell, Mild |
| | [Ectasia TGLs = 13-21] | | |
| | [Erythrophagocytosis TGLs = 11-6] | | |
| | [Proliferation TGLs = 12-20] | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Moderate |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | | Adenoma | |
| | Acinus | Hyperplasia | Moderate |
| | Artery | Inflammation | Chronic Active, Mild |
| | [Adenoma TGLs = 1-6] | | |
| * Parathyroid Gland | | Hyperplasia | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| | Note: Longitudinal section available for evaluation. | | |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Cyst | |
| * Preputial Gland | Duct | Dilation | Minimal |
| | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 14-16] | | |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | [Decreased Secretory Fluid TGLs = 7-16] | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Skin | Subcut Tiss | Sarcoma | |
| | [Sarcoma TGLs = 8-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 522

TRT#: 1

SEX: Male

DAY ON TEST: 719

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-522

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------------------------------|--------------|--------------------------|
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Moderate |
| | Red Pulp | Atrophy | Mild |
| | [Atrophy TGLs = 9-12] | | |
| * Testis | Germ Cell | Degeneration | Moderate |
| | Artery | Inflammation | Chronic Active, Moderate |
| | [Degeneration TGLs = 10-16A] | | |
| * Thymus | | Atrophy | Marked |
| | Artery | Inflammation | Chronic Active, Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Sarcoma

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Animal Note: TGL 2 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 523

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-523

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Aorta | * Bone | * Bone Marrow | * Esophagus |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lung | * Lymph Node, Mesenteric | * Mammary Gland | * Nerve Trigeminal |
| * Parathyroid Gland | * Salivary Glands | * Seminal Vesicle | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|--------------------------|----------------------------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Moderate |
| * Brain | | Compression | Minimal |
| | [Compression TGLs = 8-2] | | |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| * Eye | Retina | Atrophy | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 4,5-13] | | |
| * Liver | Bile Duct | Cyst | |
| | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| | [Cyst TGLs = 9-20] | | |
| | [Mixed Cell Focus TGLs = 2-21] | | |
| Lymph Node | Iliac, Lymph Sinus | Ectasia | Mild |
| | [Ectasia TGLs = 6-20] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| | Respirat Epith | Hyperplasia | Minimal |
| | | Inflammation | Suppurative, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 523

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-523

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|--------------------------|
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 7-4] | | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGLs 1,3,10 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 524

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-524

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Bone Marrow |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung |
| * Mammary Gland | * Pituitary Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | Skeletal Muscle | * Stomach, Forestomach | * Stomach, Glandular |
| * Thymus | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|--------------------------|---------------|-------------------------------|------------------------------|
| * Adrenal Medulla | | Hyperplasia | Moderate |
| * Brain | Pineal Gland | Vacuolation, Cytoplasmic | Mild |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| * Kidney | Renal Tubule | Cyst | |
| | | Nephropathy | Chronicprogr, Marked |
| | | | [Cyst TGLs = 6-20] |
| | | | [Nephropathy TGLs = 5-13] |
| * Liver | Bile Duct | Cyst | |
| | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| | | | [Cyst TGLs = 4-20] |
| Lymph Node | Mediastinal | Erythrophagocytosis | Mild |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Moderate |
| | | Proliferation | Plasma Cell, Mild |
| | | | [Hyperplasia TGLs = 1-9] |
| * Lymph Node, Mesenteric | | Hyperplasia | Lymphocyte, Minimal |
| | | | [Hyperplasia TGLs = 11-15] |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Moderate |
| | Artery | Inflammation | Chronic Active, Moderate |
| | | | [Hyperplasia TGLs = 12-6] |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 524

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-524

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------------|------------------------------|--------------------------|
| * Parathyroid Gland [Hyperplasia TGLs = 9-8] | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland [Dilation TGLs = 2,3-16] | Duct | Dilation | Marked |
| * Skin [Inflammation TGLs = 10-20] | Subcut Tiss | Inflammation | Chronic, Mild |
| | Artery, Subcut Tiss | Inflammation | Chronic Active, Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thyroid Gland | C Cell | Adenoma | |

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Animal Note: TGL 8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 527

TRT#: 1

SEX: Male

DAY ON TEST: 565

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-527

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone Marrow
- * Intestine Large, Colon
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Cervical
- Trigeminal Ganglion
- * Brain
- * Islets, Pancreatic
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Forestomach
- * Urinary Bladder
- * Esophagus
- * Liver
- * Pituitary Gland
- Skeletal Muscle
- * Thyroid Gland
- * Harderian Gland
- * Lymph Node, Mandibular
- * Prostate
- * Skin
- * Trachea

AUTO PRECLUDES DIAG.

- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

INSUFFICIENT TISSUE

- * Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex Hyperplasia Minimal
- * Adrenal Medulla Hypertrophy Mild
- * Aorta Hyperplasia Mild
- * Bone Mineral Mild
- * Brain Fibrous Osteodystrophy Minimal
- Note: Olfactory bulbs unavailable for evaluation.
- * Epididymis Exfoliated Germ Cell Mild
- * Eye Cornea Inflammation Acute, Moderate
- Note: Retina autolysis precludes evaluation.
- * Heart Cardiomyopathy Moderate
- Artery Congestion Moderate
- [Congestion TGLs = 3-11] Mineral Moderate
- * Intestine Large, Cecum Artery Inflammation Chronic Active, Mild
- * Intestine Large, Rectum Artery Inflammation Chronic Active, Minimal
- * Kidney Artery Mineral Mild
- Nephropathy Chronicprogr, Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 527

TRT#: 1

SEX: Male

DAY ON TEST: 565

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-527

ORGAN AND ACCOUNTABLE SITE STATUS

[Nephropathy TGLs = 1,2-13]

| | | | |
|--|---------------|-------------------------------|-------------------------|
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| Mesentery | Artery | Inflammation | Chronic Active, Minimal |
| | Artery | Mineral | Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | Olfactory Epi | Metaplasia | Respiratory, Minimal |
| * Pancreas | Acinus | Hyperplasia | Marked |
| | Artery | Mineral | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| Skel Muscle | | | |
| Note: Skeletal muscle adjacent to vertebrae. | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Mild |
| | Arteriole | Mineral | Mild |
| | | Pigment | Mild |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Mild |
| * Thymus | | Atrophy | Marked |
| | | Cyst | |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 529

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-529

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Epididymis |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung | * Lymph Node, Mesenteric |
| * Mammary Gland | * Parathyroid Gland | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Thyroid Gland | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|--|-----------------------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| * Bone Marrow | | Hypercellularity | Minimal |
| * Brain | Meninges | Hyperplasia | Gran Cell, Minimal |
| | Pineal Gland | Vacuolation, Cytoplasmic | Minimal |
| Note: Meningeal Hyperplasia composed of granular cells | | | |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| | [Nephropathy TGLs = 4-13] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | | Inflammation | Suppurative, Minimal |
| * Pancreas | | Adenoma | |
| | [Adenoma TGLs = 3-20] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Preputial Gland | Duct | Dilation | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 529

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-529

ORGAN AND ACCOUNTABLE SITE STATUS

| | | |
|---|------------------------------|----------------------|
| [Dilation TGLs = 2-16] | Inflammation | Chronic Active, Mild |
| * Prostate | Adenoma | |
| * Skin | Squamous Cell Papilloma | |
| [Squamous Cell Papilloma TGLs = 1-20] | | |
| * Spinal Cord, Lumbar Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | Degeneration | Mild |
| * Spleen | Extramedullary Hematopoiesis | Mild |
| | Pigment | Minimal |
| * Thymus | Atrophy | Moderate |
| Trigeminal Ganglion | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 530

TRT#: 1

SEX: Male

DAY ON TEST: 715

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-530

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Small, Ileum
- * Preputial Gland
- * Skeletal Muscle
- * Stomach, Glandular
- * Bone Marrow
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Prostate
- * Skin
- * Thyroid Gland
- * Brain
- * Intestine Large, Rectum
- * Liver
- * Salivary Glands
- * Spinal Cord, Cervical
- * Trigeminal Ganglion
- * Eye
- * Intestine Small, Duodenum
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Forestomach
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration Minimal
 - Hyperplasia Mild
 - Hypertrophy Minimal
- * Adrenal Medulla
 - Hyperplasia Mild
- * Bone
 - Fibrous Osteodystrophy Minimal
- * Epididymis
 - Exfoliated Germ Cell Minimal
- * Esophagus
 - Dilation Marked
- [Dilation TGLs = 5-8]
- * Heart
 - Cardiomyopathy Minimal
- * Kidney
 - Nephropathy Chronicprogr, Marked
- [Nephropathy TGLs = 7,8,10-13]
- * Lung
 - Alveolus Infiltration Cellular Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Infiltration Cellular Polymorphnuclr, Mild
- * Lymph Node, Mesenteric
 - Erythrophagocytosis Minimal
- * Nerve Trigeminal
 - Degeneration Moderate
- * Nose
 - Olfactory Epi Accumulation, Hyaline Droplet Moderate
 - Foreign Body
 - Inflammation Suppurative, Moderate
- Note: Plant-based material within nasal lumen.
- * Pancreas
 - Acinus Hyperplasia Moderate
 - Artery Inflammation Chronic Active, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 530

TRT#: 1

SEX: Male

DAY ON TEST: 715

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-530

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|-------------------------|--------------|--------------------------|
| * Parathyroid Gland [Hyperplasia TGLs = 6-8] | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic Note: Longitudinal section available for evaluation. | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial Note: Longitudinal section available for evaluation. | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Minimal |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| | [Atrophy TGLs = 9-12] | | |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Marked |
| | | Hyperplasia | Epithelial, Minimal |
| * Trachea | Epithelium | Metaplasia | Squamous, Minimal |

PRIMARY CAUSE OF DEATH - Esophagus Dilation

Animal Note: TGLs 1,2,3,4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 533

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-533

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Liver | * Lymph Node, Mesenteric |
| * Nerve Trigeminal | * Parathyroid Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Stomach, Glandular | * Thyroid Gland | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Mild |
| | [Hypertrophy TGLs = 3-7] | | |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Hyperplasia | Mild |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 4,5-13] | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 7-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Mild |
| | [Dilation TGLs = 1-9] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| | [Hyperplasia TGLs = 6-6] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 8,9-4] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 533

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-533

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------|--------|------------------------------|----------------------------------|
| * Preputial Gland | Duct | Dilation Inflammation | Moderate Chronic Active, Mild |
| [Dilation TGLs = 2-16] | | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 534

TRT#: 1

SEX: Male

DAY ON TEST: 721

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-534

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Liver
- * Seminal Vesicle
- * Stomach, Glandular
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skin
- * Thyroid Gland
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea

MISSING

Trigeminal Ganglion

INSUFFICIENT TISSUE

* Mammary Gland

OBSERVATIONS

- * Adrenal Cortex
 - * Adrenal Medulla
 - * Eye
 - * Heart
 - * Intestine Small, Jejunum
 - * Kidney
 - Lacrimal Gland
 - * Lung
 - Thrombus
 - Pheochromocytoma Benign
 - Thrombus
 - Inflammation
 - Neovascularization
 - Cardiomyopathy
 - Dilation
 - Adenocarcinoma
 - Cyst
 - Nephropathy
 - Metaplasia
 - Congestion
 - Marked
 - Marked
 - Acute, Minimal
 - Minimal
 - Minimal
 - Moderate
 - Chronicprogr, Marked
 - Harderian GI, Minimal
 - Mild
- [Dilation TGLs = 6-11]
- [Adenocarcinoma TGLs = 11,12-20,21]
- [Cyst TGLs = 5-13]
- [Nephropathy TGLs = 3,4-13]
- [Congestion TGLs = 1-10]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 534

TRT#: 1

SEX: Male

DAY ON TEST: 721

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-534

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------------------------|--|--|
| Lymph Node [Hyperplasia TGLs = 13-22] | Pancreatic | Hyperplasia | Lymphocyte, Moderate |
| * Lymph Node, Mandibular | | Hyperplasia Proliferation | Lymphocyte, Mild Plasma Cell, Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Respirat Epith Olfactory Epi | Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet | Minimal Mild |
| Note: Level 2 and 3 are damaged. | | | |
| * Pancreas [Adenoma TGLs = 9-6] | | Adenoma | Multiple |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland [Adenoma TGLs = 10-4] | Pars Distalis | Adenoma | |
| * Preputial Gland | Duct | Dilation Inflammation | Moderate Chronic Active, Mild |
| * Prostate | Epithelium | Hyperplasia Inflammation | Minimal Acute, Mild |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy Hyperplasia | Moderate Epithelial, Mild |

PRIMARY CAUSE OF DEATH - Intestine Small, Jejunum Adenocarcinoma

Animal Note: TGLs 2,7,8 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 535

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-535

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- Skeletal Muscle
- * Thyroid Gland
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Prostate
- * Spinal Cord, Cervical
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Mammary Gland
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Seminal Vesicle
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 Minimal
Mild
- * Adren Medulla
 - Note: One of pair available for evaluation.
- * Bone Marrow
 - Hypercellularity
 Minimal
- * Epididymis
 - Mesothelioma Malignant
- * Heart
 - Cardiomyopathy
 - Ventricl Rgt
 - Cardiomyopathy
 - Adenoma
 Mild
Minimal
- * Islets, Pancreatic
 - [Adenoma TGLs = 5-6]
- * Kidney
 - [Nephropathy TGLs = 6-13]
 Nephropathy

Chronicprogr, Moderate
- * Liver
 - Clear Cell Focus
- * Lung
 - Congestion
 - Alveolus
 - Infiltration Cellular
 Minimal
Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 Lymphocyte, Mild
Plasma Cell, Moderate
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 Minimal
- * Pancreas
 - Acinus
 - Hyperplasia
 - Artery
 - Inflammation
 Mild
Chronic Active, Mild
- * Peripheral Nerve, Sciatic
 - [Hyperplasia TGLs = 5-14]
 Degeneration

Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 535

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-535

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|------------------------------|--------------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 8-4] | | | |
| * Preputial Gland | Duct | Dilation | Marked |
| | | Inflammation | Chronic Active, Moderate |
| [Dilation TGLs = 1,7-16] | | | |
| * Skin | Subcut Tiss | Lipoma | |
| [Lipoma TGLs = 2-20] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | | Mesothelioma Malignant | |
| [Mesothelioma Malignant TGLs = 3-16A] | | | |
| * Thymus | | Cyst | |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 536

TRT#: 1

SEX: Male

DAY ON TEST: 510

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-536

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lymph Node, Mandibular | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nerve Trigeminal | * Pancreas | * Peripheral Nerve, Tibial |
| * Preputial Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Spinal Cord, Lumbar |
| * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular | * Testis |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- * Parathyroid Gland

OBSERVATIONS

- | | | | |
|--|---------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Aorta | | Mineral | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricle Rgt | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Hyperplasia | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Liver | | Clear Cell Focus | |
| * Lung | | Foreign Body | |
| | | Inflammation | Suppurative, Moderate |
| Note: Multiple large pieces of plant based material. [Inflammation TGLs = 1-10] | | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | | Foreign Body | |
| | | Inflammation | Suppurative, Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| Note: Longitudinal section available for evaluation. | | | |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 536

TRT#: 1

SEX: Male

DAY ON TEST: 510

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-536

ORGAN AND ACCOUNTABLE SITE STATUS

| | | |
|----------|------------------------------|---------|
| * Spleen | Extramedullary Hematopoiesis | Minimal |
| | Pigment | Minimal |
| * Thymus | Atrophy | Mild |

PRIMARY CAUSE OF DEATH - Lung Inflammation

CONTRIBUTORY CAUSE OF DEATH - Lung Foreign Body

Animal Note: TGLs 2,3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 538

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-538

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lung | * Lymph Node, Mesenteric | * Mammary Gland | * Parathyroid Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

| | | | |
|------------------------------|------------------------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Epididymis | | Hypospermia | Marked |
| Note: One epididymis normal. | | | |
| | [Hypospermia TGLs = 2-16A] | | |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Liver | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 3-4] | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 538

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-538

ORGAN AND ACCOUNTABLE SITE STATUS

* Testis

Germ Cell

Degeneration

Marked

Note: One testis normal.

[Degeneration TGLs = 1-16A]

* Thymus

Atrophy

Moderate

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 539

TRT#: 1

SEX: Male

DAY ON TEST: 610

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-539

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Skin
- * Thyroid Gland
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Prostate
- * Spinal Cord, Cervical
- * Trachea
- * Eye
- * Intestine Small, Duodenum
- * Lung
- * Salivary Glands
- * Spinal Cord, Thoracic
- Trigeminal Ganglion

MISSING

- * Pituitary Gland

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hypertrophy
 - Mild
 - [Accessory Adrenal Cortical Nodule TGLs = 1-7]
- * Adrenal Medulla
 - Hyperplasia
 - Mild
- * Aorta
 - Mineral
 - Moderate
- * Bone
 - Fibrous Osteodystrophy
 - Minimal
- * Epididymis
 - Exfoliated Germ Cell
 - Mild
- * Heart
 - Cardiomyopathy
 - Moderate
- * Intestine Large, Cecum
 - Artery
 - Mineral
 - Moderate
 - Edema
 - Moderate
 - Erosion
 - Moderate
 - Inflammation
 - Chronic Active, Moderate
 - Regeneration
 - Moderate
 - Epithelium
 - [Edema TGLs = 5-15]
- * Kidney
 - Renal Tubule
 - Cyst
 - Nephropathy
 - Chronicprogr, Marked
 - [Cyst TGLs = 2-13]
 - [Nephropathy TGLs = 8,9-13]
- * Liver
 - Bile Duct
 - Hyperplasia
 - Minimal
 - Lymph Node
 - Renal
 - Erythrophagocytosis
 - Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 539

TRT#: 1

SEX: Male

DAY ON TEST: 610

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-539

ORGAN AND ACCOUNTABLE SITE STATUS

[Erythrophagocytosis TGLs = 10,11-20]

* Lymph Node, Mandibular

Hyperplasia
Proliferation

Lymphocyte, Minimal
Plasma Cell, Minimal

[Hyperplasia TGLs = 3-9]

Mesentery

Artery
Vein

Inflammation
Inflammation
Degeneration

Chronic Active, Mild
Chronic Active, Minimal

* Nerve Trigeminal

* Nose

* Pancreas

Olfactory Epi
Acinus
Artery

Accumulation, Hyaline Droplet

Moderate

Mild

Mild

* Parathyroid Gland

* Peripheral Nerve, Sciatic

* Peripheral Nerve, Tibial

Mineral

Hyperplasia

Degeneration

Degeneration

Mild

Moderate

Moderate

Note: Longitudinal section available for evaluation.

* Preputial Gland

* Seminal Vesicle

* Spinal Cord, Lumbar

* Spleen

* Stomach, Glandular

* Testis

Duct

Nerve

Germ Cell
Artery

Dilation

Decreased Secretory Fluid

Degeneration

Pigment

Mineral

Degeneration

Inflammation

Mild

Moderate

Mild

Minimal

Moderate

Mild

Chronic Active, Moderate

[Degeneration TGLs = 7-16A]

* Thymus

Atrophy

Marked

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 4,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 540

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-540

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Intestine Large, Rectum
- * Pituitary Gland
- * Trachea
- * Bone Marrow
- * Intestine Small, Duodenum
- * Prostate
- * Urinary Bladder
- * Esophagus
- * Intestine Small, Ileum
- * Skin
- * Eye
- * Intestine Small, Jejunum
- * Stomach, Forestomach

MISSING

- * Mammary Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia Minimal
 - Hypertrophy Minimal
- * Adrenal Medulla
 - Hyperplasia Marked
 - Pheochromocytoma Benign
- [Pheochromocytoma Benign TGLs = 4,5-7]
- * Bone
 - Fibrous Osteodystrophy Minimal
- * Brain
 - Meninges Granular Cell Tumor Benign
- * Epididymis
 - Exfoliated Germ Cell Minimal
- * Harderian Gland
 - Inflammation Chronic Active, Minimal
- * Heart
 - Cardiomyopathy Mild
 - Ventricl Rgt Cardiomyopathy Minimal
 - Artery Inflammation Chronic Active, Mild
- * Intestine Large, Cecum
 - Artery Inflammation Chronic Active, Mild
- * Intestine Large, Colon
 - Hyperplasia Mild
- * Islets, Pancreatic
- * Kidney
 - Renal Tubule Cyst
 - Nephropathy Chronicprogr, Marked
 - Thrombus Moderate
- [Cyst TGLs = 7,8-13]
- [Nephropathy TGLs = 6,9,14-13]
- * Liver
 - Bile Duct Eosinophilic Focus
 - Hyperplasia Mild
 - Infiltration Cellular Mixed Cell, Minimal
- * Lung
 - Artery, Mediastinum Inflammation Chronic Active, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 540

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-540

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|------------------------------|-------------------------------|--------------------------|
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Minimal |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Minimal |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| | [Hyperplasia TGLs = 12-20] | | |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | Duct | Dilation | Marked |
| | | Inflammation | Chronic Active, Moderate |
| | [Dilation TGLs = 1,2-16] | | |
| | [Inflammation TGLs = 3-16] | | |
| * Salivary Glands | Parotid GI | Atrophy | Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Minimal |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Hyperplasia | Lymphocyte, Mild |
| | [Hyperplasia TGLs = 10-12] | | |
| * Stomach, Glandular | Artery | Inflammation | Chronic Active, Minimal |
| * Testis | Artery | Inflammation | Chronic Active, Marked |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | Follicle | Hyperplasia | Cystic, Minimal |
| | C Cell | Hyperplasia | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 540

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-540

ORGAN AND ACCOUNTABLE SITE STATUS

Trigeminal Ganglion

Degeneration

Minimal

Animal Note: TGLs 11,13 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 541

TRT#: 1

SEX: Male

DAY ON TEST: 663

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-541

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Skin
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Rectum
- * Lung
- * Stomach, Forestomach
- * Eye
- * Intestine Small, Duodenum
- * Prostate
- * Thyroid Gland
- * Harderian Gland
- * Intestine Small, Ileum
- * Salivary Glands
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - * Adrenal Medulla
 - * Aorta
 - * Bone
 - * Brain
 - * Epididymis
 - * Heart
 - * Intestine Large, Cecum
 - * Islets, Pancreatic
 - * Kidney
 - * Liver
 - * Lymph Node, Mandibular
 - * Lymph Node, Mesenteric
 - * Mammary Gland
 - Mesentery
- [Cyst TGLs = 1,2-13,20]
- [Nephropathy TGLs = 3,4-13]
- Vacuolation, Cytoplasmic
 - Pheochromocytoma Benign
 - Mineral
 - Fibrous Osteodystrophy
 - Hemorrhage
 - Necrosis
 - Exfoliated Germ Cell
 - Cardiomyopathy
 - Artery
 - Mineral
 - Edema
 - Erosion
 - Artery
 - Inflammation
 - Epithelium
 - Regeneration
 - Hyperplasia
 - Renal Tubule
 - Cyst
 - Nephropathy
 - Bile Duct
 - Hyperplasia
 - Mixed Cell Focus
 - Proliferation
 - Erythrophagocytosis
 - Galactocele
 - Artery
 - Inflammation
- Minimal
 - Mild
 - Minimal
 - Minimal
 - Minimal
 - Moderate
 - Moderate
 - Moderate
 - Mild
 - Mild
 - Chronic Active, Mild
 - Mild
 - Minimal
 - Chronicprogr, Marked
 - Minimal
 - Plasma Cell, Mild
 - Mild
 - Chronic Active, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 541

TRT#: 1

SEX: Male

DAY ON TEST: 663

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-541

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|-------------------------------|--------------------------|
| * Nerve Trigeminal | Artery | Mineral Degeneration | Mild Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| | Artery | Mineral | Minimal |
| * Parathyroid Gland | | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| Note: Pars distalis available for evaluation. | | | |
| * Preputial Gland | Duct | Dilation | Mild |
| [Dilation TGLs = 7,8-16] | | | |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | Artery | Inflammation | Chronic Active, Moderate |
| [Decreased Secretory Fluid TGLs = 6-16] | | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Minimal |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Minimal |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| [Degeneration TGLs = 5-16A] | | | |
| * Thymus | | Atrophy | Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGL 9 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 542

TRT#: 1

SEX: Male

DAY ON TEST: 580

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-542

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Brain | * Esophagus | * Harderian Gland | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Mammary Gland | * Nerve Trigeminal |
| * Pituitary Gland | * Prostate | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Thyroid Gland |
| * Trachea | * Urinary Bladder | | |

INSUFFICIENT TISSUE

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|--------------------------|---|------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| * Adrenal Medulla | | Hyperplasia | Mild |
| * Aorta | | Mineral | Mild |
| | [Mineral TGLs = 9-11] | | |
| Blood Vessel | | Mineral | Marked |
| | Note: Affecting vessels within mediastinum. | | |
| * Bone | | Fibrous Osteodystrophy | Minimal |
| * Bone Marrow | | Hypercellularity | Minimal |
| * Epididymis | | Exfoliated Germ Cell | Moderate |
| | | Hypospermia | Moderate |
| * Eye | Cornea | Inflammation | Acute, Minimal |
| * Heart | | Cardiomyopathy | Marked |
| | Ventricle Rgt | Cardiomyopathy | Mild |
| | Artery | Mineral | Moderate |
| * Intestine Large, Cecum | Artery | Inflammation | Chronic Active, Mild |
| | | Inflammation | Acute, Moderate |
| | Epithelium | Regeneration | Mild |
| | | Ulcer | Moderate |
| * Intestine Large, Colon | | Inflammation | Acute, Minimal |
| | | Ulcer | Minimal |
| | [Inflammation TGLs = 3-15] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 542

TRT#: 1

SEX: Male

DAY ON TEST: 580

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-542

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------------------|-------------------------------|----------------------|
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 7,8,11,12-13] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lung | Epithlm Alvlus | Hyperplasia | Mild |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| | Artery | Mineral | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Moderate |
| | Artery | Inflammation | Chronic Active, Mild |
| | [Hyperplasia TGLs = 2-6] | | |
| * Parathyroid Gland | | Hyperplasia | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Mild |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| | Duct, Parotid GI | Dilation | Mild |
| | Parotid GI | Inflammation | Acute, Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Moderate |
| | | Pigment | Mild |
| | [Atrophy TGLs = 13-12] | | |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Mild |
| | [Degeneration TGLs = 1-16A] | | |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 4,5,10,14 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 542

TRT#: 1

SEX: Male

DAY ON TEST: 580

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-542

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL 6 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 543

TRT#: 1

SEX: Male

DAY ON TEST: 567

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-543

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Seminal Vesicle
- * Testis
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- Skeletal Muscle
- * Thyroid Gland
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Stomach, Forestomach
- * Trachea
- * Brain
- * Heart
- * Intestine Small, Ileum
- * Mammary Gland
- * Stomach, Glandular

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Epididymis
- * Kidney
- [Nephropathy TGLs = 6-13]
- * Liver
- [Cyst TGLs = 7-12]
- [Hepatodiaphragmatic Nodule TGLs = 8-20]
- * Lung
- * Nerve Trigeminal
- * Nose
- * Pancreas
- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Preputial Gland
- * Prostate
- [Inflammation TGLs = 2-16]
- Bile Duct
- Alveolus
- Olfactory Epi
- Acinus
- Pars Distalis
- Hyperplasia
- Hypercellularity
- Exfoliated Germ Cell
- Nephropathy
- Cyst
- Extramedullary Hematopoiesis
- Hepatodiaphragmatic Nodule
- Infiltration Cellular
- Degeneration
- Accumulation, Hyaline Droplet
- Hyperplasia
- Hyperplasia
- Degeneration
- Degeneration
- Cyst
- Inflammation
- Inflammation
- Mild
- Marked
- Minimal
- Chronicprogr, Moderate
- Minimal
- Histiocyte, Minimal
- Moderate
- Minimal
- Mild
- Minimal
- Minimal
- Mild
- Chronic Active, Minimal
- Acute, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 543

TRT#: 1

SEX: Male

DAY ON TEST: 567

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-543

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|------------------------------|------------------------------|---------------------|
| * Salivary Glands | Parotid GI | Atrophy | Minimal |
| * Skin | Subcut Tiss | Inflammation | Suppurative, Marked |
| | Subcut Tiss | Sarcoma | |
| | [Inflammation TGLs = 9-20] | | |
| | [Sarcoma TGLs = 10-21] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| * Thymus | | Atrophy | Marked |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Urinary Bladder | Urothelium | Hyperplasia | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 1,3,4,5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56
Test Type: CHRONIC
Route: Whole Body Exposure
Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Cell Phone Radiation: CDMA
CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018
Time Report Requested: 13:31:21
First Dose M/F: 09/16/12 / 09/16/12
Lab: IIT

ANIMAL ID: 544

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-544

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lymph Node, Mesenteric | * Mammary Gland |
| * Parathyroid Gland | * Preputial Gland | * Prostate | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Stomach, Glandular | * Thyroid Gland | * Trachea | * Urinary Bladder |

OBSERVATIONS

| | | | |
|--|---------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Moderate |
| * Adrenal Medulla | | Hyperplasia | Moderate |
| * Heart | | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Carcinoma | |
| | | Hyperplasia | Minimal |
| [Carcinoma TGLs = 3-6] | | | |
| * Kidney | Renal Tubule | Hyperplasia | Oncocytic, Minimal |
| | | Nephropathy | Chronicprogr, Marked |
| [Nephropathy TGLs = 2-13] | | | |
| * Liver | Bile Duct | Hyperplasia | Mild |
| | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| [Infiltration Cellular TGLs = 4-10,20] | | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Moderate |
| | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Minimal |
| [Ectasia TGLs = 1-9] | | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Atrophy | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 544

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-544

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|---------------|------------------------------|----------|
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Salivary Glands | Parotid GI | Atrophy | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Seminif Tub | Dilation | Mild |
| * Thymus | | Atrophy | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 545

TRT#: 1

SEX: Male

DAY ON TEST: 604

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-545

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Esophagus
- * Intestine Small, Jejunum
- * Prostate
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Aorta
- * Eye
- * Islets, Pancreatic
- * Seminal Vesicle
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Harderian Gland
- * Mammary Gland
- Skeletal Muscle
- * Thyroid Gland
- * Epididymis
- * Intestine Small, Duodenum
- * Pituitary Gland
- * Skin
- * Trachea

OBSERVATIONS

- * Adrenal Medulla
[Pheochromocytoma Malignant TGLs = 3-7]
Pheochromocytoma Malignant
- * Bone
Fibrous Osteodystrophy
- * Bone Marrow
Hypercellularity
- * Heart
Cardiomyopathy
- * Intestine Large, Cecum
Artery
Inflammation
- * Intestine Large, Colon
Artery
Inflammation
- * Intestine Large, Rectum
Artery
Inflammation
- * Intestine Small, Ileum
Artery
Inflammation
- * Kidney
Nephropathy
Nephropathy
- [Nephropathy TGLs = 2-13]
- * Liver
Bile Duct
Hyperplasia
- Mixed Cell Focus
- * Lung
Congestion
- Artery, Mediastinum
Inflammation
- [Congestion TGLs = 6-10]
- * Lymph Node, Mandibular
Hyperplasia
- Proliferation
- * Lymph Node, Mesenteric
Erythrophagocytosis
- [Erythrophagocytosis TGLs = 7,8-15]
- Mesentery
Artery
Inflammation
- * Nerve Trigeminal
Degeneration
- * Nose
Olfactory Epi
Accumulation, Hyaline Droplet

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 545

TRT#: 1

SEX: Male

DAY ON TEST: 604

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-545

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|------------------------------|--------------------------|
| * Pancreas | Acinus | Hyperplasia | Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | [Extramedullary Hematopoiesis TGLs = 1-12] | | |
| * Stomach, Glandular | Artery | Inflammation | Chronic Active, Moderate |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Mild |
| | Artery | Inflammation | Chronic Active, Minimal |

PRIMARY CAUSE OF DEATH - Adrenal Medulla Pheochromocytoma Malignant

Animal Note: TGLs 4,5,9,10,11,12,13 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 546

TRT#: 1

SEX: Male

DAY ON TEST: 704

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-546

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Lymph Node, Mesenteric | * Preputial Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | * Urinary Bladder | |

MISSING

| | | |
|---------------------------|-----------------|---------------------|
| * Intestine Large, Rectum | * Mammary Gland | Trigeminal Ganglion |
|---------------------------|-----------------|---------------------|

AUTO PRECLUDES DIAG.

| | |
|--------------------------|--------------------------|
| * Intestine Large, Cecum | * Intestine Large, Colon |
|--------------------------|--------------------------|

OBSERVATIONS

| | | | |
|---|--|-----------------------|-------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| | Atrium | Dilation | Mild |
| | [Dilation TGLs = 6-11] | | |
| * Islets, Pancreatic | | Carcinoma | |
| | [Carcinoma TGLs = 3-21] | | |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 1,2-13] | | |
| * Liver | Periductal | Cholangiofibrosis | Mild |
| Note: Intestinal metaplasia of extrahepatic bile ducts. | | | |
| * Lung | | Congestion | Mild |
| | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | [Infiltration Cellular TGLs = 9-11,20] | | |
| Lymph Node | Pancreatic | Erythrophagocytosis | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 546

TRT#: 1

SEX: Male

DAY ON TEST: 704

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-546

ORGAN AND ACCOUNTABLE SITE STATUS

[Erythrophagocytosis TGLs = 5-20]

| | | | |
|-----------------------------|----------------------------|---|---|
| * Lymph Node, Mandibular | | Hyperplasia Proliferation | Lymphocyte, Moderate Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet Inflammation | Minimal Suppurative, Minimal |
| * Pancreas | Acinus Acinus | Atrophy Hyperplasia | Minimal Mild |
| * Parathyroid Gland | | Hyperplasia | Minimal |
| | [Hyperplasia TGLs = 8-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration Degeneration | Mild Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 4,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 547

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-547

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Epididymis
- * Esophagus
- * Harderian Gland
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Preputial Gland
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- * Skeletal Muscle
- * Skin
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea
- Trigeminal Ganglion
- * Urinary Bladder

OBSERVATIONS

- * Eye Retina Atrophy Minimal
- * Intestine Large, Rectum Hyperplasia Lymphocyte, Marked
- * Kidney Nephropathy Chronicprogr, Mild
- [Nephropathy TGLs = 2-13]
- * Liver Bile Duct Hyperplasia Minimal
- Mixed Cell Focus
- * Lung Alveolus Infiltration Cellular Histiocyte, Mild
- [Infiltration Cellular TGLs = 4-10]
- * Lymph Node, Mandibular Hyperplasia Lymphocyte, Mild
- Proliferation Plasma Cell, Mild
- Degeneration Mild
- * Nose Olfactory Epi Accumulation, Hyaline Droplet Minimal
- * Pancreas Acinus Hyperplasia Moderate
- [Hyperplasia TGLs = 3-6]
- * Parathyroid Gland Hyperplasia Minimal
- * Peripheral Nerve, Sciatic Degeneration Moderate
- * Peripheral Nerve, Tibial Degeneration Moderate
- * Pituitary Gland Pars Distalis Hyperplasia Minimal
- * Spinal Cord, Cervical Degeneration Minimal
- * Spinal Cord, Lumbar Degeneration Minimal
- Nerve Degeneration Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 547

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-547

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------|--------|------------------------------|--------------------------|
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Moderate |
| | | Ectopic Parathyroid Gland | |
| Tissue NOS | Fat | Necrosis | Moderate |
| [Necrosis TGLs = 1-20] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 548

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-548

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- Skeletal Muscle
- * Thyroid Gland
- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Prostate
- * Stomach, Forestomach
- * Trachea
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- Trigeminal Ganglion
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Thymus
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
- * Eye
- * Heart
- * Kidney
- [Nephropathy TGLs = 3-13]
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 5-10]
- * Lymph Node, Mandibular
- * Nerve Trigeminal
- * Nose
- * Pancreas
- [Hyperplasia TGLs = 2-6]
- Retina
- Cornea, Epithelium
- Cornea
- Cornea
- Bile Duct
- Alveolus
- Lymph Sinus
- Olfactory Epi
- Olfactory Epi
- Acinus
- Artery
- Hypertrophy
- Atrophy
- Hyperplasia
- Inflammation
- Neovascularization
- Cardiomyopathy
- Nephropathy
- Hyperplasia
- Mixed Cell Focus
- Infiltration Cellular
- Ectasia
- Hyperplasia
- Proliferation
- Degeneration
- Accumulation, Hyaline Droplet
- Inflammation
- Metaplasia
- Hyperplasia
- Inflammation
- Minimal
- Minimal
- Minimal
- Acute, Minimal
- Minimal
- Minimal
- Chronicprogr, Marked
- Minimal
- Histiocyte, Mild
- Moderate
- Lymphocyte, Mild
- Plasma Cell, Mild
- Moderate
- Minimal
- Suppurative, Minimal
- Respiratory, Minimal
- Moderate
- Chronic Active, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 548

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-548

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|------------------------------|------------------------------|------------------------|
| * Parathyroid Gland | | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Moderate |
| * Preputial Gland | | Hyperplasia | Mild |
| | | Inflammation | Chronic Active, Mild |
| * Skin | Epidermis | Hyperplasia | Mild |
| | | Inflammation | Chronic Active, Mild |
| | [Inflammation TGLs = 1-20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Marked |

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 549

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-549

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Rectum
- * Lung
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Stomach, Glandular
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Skeletal Muscle
- * Thyroid Gland
- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Prostate
- * Skin
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Vacuolation, Cytoplasmic
- * Epididymis
 - Hypospermia
- [Hypospermia TGLs = 3-16A]
- * Eye
 - Retina
 - Atrophy
- * Harderian Gland
 - Degeneration
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
 - Carcinoma
- * Islets, Pancreatic
 - [Carcinoma TGLs = 4-6]
- * Kidney
 - Nephropathy
- * Liver
 - Clear Cell Focus
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Hyperplasia
 - Proliferation
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Pancreas
 - Acinus
 - Hyperplasia
- * Parathyroid Gland
 - Hyperplasia
- * Peripheral Nerve, Sciatic
 - Degeneration
 - Infiltration Cellular
- * Peripheral Nerve, Tibial
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 549

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-549

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------------------------------|------------------------------|--------------------------|
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| * Preputial Gland | Duct | Dilation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | [Dilation TGLs = 1-16] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | Germ Cell | Degeneration | Marked |
| | Artery | Inflammation | Chronic Active, Moderate |
| | [Degeneration TGLs = 2-16A] | | |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 550

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-550

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Nose
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Urinary Bladder
- * Bone Marrow
- * Harderian Gland
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Preputial Gland
- Skeletal Muscle
- * Thyroid Gland
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Mammary Gland
- * Prostate
- * Skin
- * Trachea

INSUFFICIENT TISSUE

- * Adrenal Medulla

OBSERVATIONS

- * Adrenal Cortex
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 - Minimal
 - Mild
 - [Vacuolation, Cytoplasmic TGLs = 3-7]
- * Epididymis
 - Note: One epididymis is normal.
 - [Hypospermia TGLs = 2-16A]
 - Hypospermia
 - Marked
- * Islets, Pancreatic
 - Hyperplasia
 - Minimal
- * Kidney
 - Nephropathy
 - Chronicprogr, Moderate
 - [Nephropathy TGLs = 4-13]
- * Liver
 - Mixed Cell Focus
- * Lung
 - Epithlm Alvlus
 - Hyperplasia
 - Marked
 - [Hyperplasia TGLs = 7-10]
- Lymph Node
 - Iliac, Lymph Sinus
 - Ectasia
 - Mild
 - Iliac
 - Hyperplasia
 - Lymphocyte, Mild
 - Iliac
 - Proliferation
 - Plasma Cell, Mild
 - [Ectasia TGLs = 5-20]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Lymphocyte, Minimal
- Mesentery
 - Inflammation
 - Chronic Active, Moderate
- * Nerve Trigeminal
 - Artery
 - Degeneration
 - Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 550

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-550

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|-----------|------------------------------|----------|
| * Pancreas | Acinus | Hyperplasia | Moderate |
| [Hyperplasia TGLs = 6-6] | | | |
| * Parathyroid Gland | | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Testis | | Cyst | |
| | Germ Cell | Degeneration | Marked |
| Note: One testis normal. | | | |
| [Degeneration TGLs = 1-16A] | | | |
| * Thymus | | Atrophy | Mild |

Animal Note: TGL 8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 551

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-551

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Mammary Gland | * Parathyroid Gland | * Salivary Glands |
| * Seminal Vesicle | Skeletal Muscle | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Testis | * Trachea | * Urinary Bladder |

OBSERVATIONS

| | | | |
|-----------------------------|----------------------------------|--------------------------|-------------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| | | Vacuolation, Cytoplasmic | Mild |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Liver | | Clear Cell Focus | |
| | [Clear Cell Focus TGLs = 3-12] | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Moderate |
| Mesentery | | Necrosis | Moderate |
| | [Necrosis TGLs = 1-20] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Respirat Epith | Hyperplasia | Minimal |
| * Pancreas | | Adenoma | |
| | Acinus | Hyperplasia | Marked |
| | [Adenoma TGLs = 2-6] | | |
| | [Hyperplasia TGLs = 2-6] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 551

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-551

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|----------------------|
| * Prostate | | Inflammation | Chronic Active, Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 552

TRT#: 1

SEX: Male

DAY ON TEST: 662

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-552

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Prostate
- * Urinary Bladder
- * Bone Marrow
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Skin
- * Esophagus
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Harderian Gland
- * Intestine Small, Jejunum
- * Mammary Gland
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia Minimal
 - Hypertrophy Mild
 - Vacuolation, Cytoplasmic Mild
- * Aorta
 - Mineral Marked

[Mineral TGLs = 9-11,10-11]
- * Bone
 - Fibrous Osteodystrophy Mild
- * Brain
 - Compression Minimal
- * Epididymis
 - Exfoliated Germ Cell Moderate
 - Hypospermia Moderate

[Hypospermia TGLs = 3-16A]
- * Eye
 - Cornea, Epithelium Hyperplasia Marked
 - Cornea Inflammation Acute, Marked

[Hyperplasia TGLs = 12-5]

[Inflammation TGLs = 11-5]
- * Heart
 - Ventricl Rgt Cardiomyopathy Moderate
 - Myocardium Cardiomyopathy Mild
 - Artery Mineral Mild
- * Intestine Large, Cecum
 - Artery Mineral Moderate
 - Artery Inflammation Chronic Active, Mild
 - Artery Mineral Mild
- * Intestine Large, Colon
 - Artery Inflammation Chronic Active, Minimal
 - Artery Mineral Mild
 - Epithelium Regeneration Mild
- * Kidney
 - Nephropathy Chronicprogr, Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 552

TRT#: 1

SEX: Male

DAY ON TEST: 662

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-552

ORGAN AND ACCOUNTABLE SITE STATUS

[Nephropathy TGLs = 6,7-13]

| | | | |
|-----------------------------|----------------|-------------------------------|----------------------|
| * Liver | Artery | Mineral | Minimal |
| * Lung | Epithlm Alvlus | Hyperplasia | Mild |
| | Artery | Mineral | Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| | Artery | Mineral | Moderate |
| * Parathyroid Gland | | Hyperplasia | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Intermed | Angiectasis | Marked |

[Adenoma TGLs = 13-4]

| | | | |
|-------------------------|---|---------------------------|----------------------|
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| * Salivary Glands | Duct, Parotid GI | Dilation | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| | Duct, Parotid GI | Inflammation | Acute, Mild |
| | Artery | Mineral | Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | [Decreased Secretory Fluid TGLs = 4-16] | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Moderate |
| | | Pigment | Minimal |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Atypical, Mild |
| | | Mineral | Moderate |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Interstit Cell | Adenoma | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 552

TRT#: 1

SEX: Male

DAY ON TEST: 662

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-552

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|-----------|--------------|-------------------------|
| | Germ Cell | Degeneration | Moderate |
| | Artery | Inflammation | Chronic Active, Minimal |
| [Degeneration TGLs = 2-16A] | | | |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |
| * Trachea | Artery | Mineral | Moderate |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 5,8 = NCL (No Corresponding Lesion)

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 553

TRT#: 1

SEX: Male

DAY ON TEST: 705

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-553

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Seminal Vesicle
- * Trachea
- * Bone Marrow
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Skin
- Trigeminal Ganglion
- * Esophagus
- * Intestine Small, Duodenum
- * Liver
- * Prostate
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Harderian Gland
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach

OBSERVATIONS

- * Adrenal Cortex
- * Aorta
- * Bone
- * Brain
- * Epididymis
- * Eye
- Note: One cornea available for evaluation.
[Inflammation TGLs = 2-5]
- * Heart
- * Intestine Large, Cecum
- * Kidney
- * Lung
- Lymph Node
- Pineal Gland
- Cornea
- Cornea
- Cornea
- Ventricl Rgt Artery
- Epithelium
- Alveolus
- Pancreatic
- Hyperplasia
- Mineral
- Fibrous Osteodystrophy
- Mineral
- Vacuolation, Cytoplasmic
- Hypospermia
- Inflammation
- Neovascularization
- Ulcer
- Cardiomyopathy
- Cardiomyopathy
- Mineral
- Edema
- Inflammation
- Regeneration
- Ulcer
- Nephropathy
- Infiltration Cellular
- Erythrophagocytosis
- Mild
- Minimal
- Minimal
- Minimal
- Minimal
- Minimal
- Marked
- Acute, Moderate
- Minimal
- Mild
- Mild
- Minimal
- Mild
- Moderate
- Acute, Moderate
- Moderate
- Moderate
- Chronicprogr, Marked
- Histiocyte, Minimal
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56
Test Type: CHRONIC
Route: Whole Body Exposure
Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA
CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018
Time Report Requested: 13:31:21
First Dose M/F: 09/16/12 / 09/16/12
Lab: IIT

ANIMAL ID: 553

TRT#: 1

SEX: Male

DAY ON TEST: 705

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-553

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------------|---------------|-------------------------------|-------------------------|
| [Erythrophagocytosis TGLs = 7-20] | | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| | Artery | Mineral | Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Minimal |
| | Artery | Inflammation | Chronic Active, Minimal |
| | Artery | Mineral | Minimal |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| [Hyperplasia TGLs = 10-8] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | Duct | Dilation | Minimal |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Minimal |
| | | Extramedullary Hematopoiesis | Mild |
| * Stomach, Glandular | | Mineral | Marked |
| * Testis | Germ Cell | Degeneration | Moderate |
| | Artery | Inflammation | Chronic Active, Marked |
| [Degeneration TGLs = 6-16A] | | | |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 8,9 = NCL (No Corresponding Lesion)

Animal Note: TGL 1 = NST (No Section Taken)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 554

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-554

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Stomach, Forestomach
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Prostate
- * Stomach, Glandular
- * Brain
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Salivary Glands
- * Trachea
- * Esophagus
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Hyperplasia
- * Bone
 - Fibrous Osteodystrophy
- * Epididymis
 - Hypospermia
- [Hypospermia TGLs = 5-16A]
- * Harderian Gland
 - Degeneration
 - Inflammation
- * Heart
 - Cardiomyopathy
 - Ventricl Rgt
 - Cardiomyopathy
 - Atrium
 - Dilation
- [Dilation TGLs = 14-11]
- * Intestine Large, Rectum
 - Inflammation
- * Kidney
 - Cyst
 - Renal Tubule
 - Nephropathy
- [Cyst TGLs = 10,11-20,13]
- [Nephropathy TGLs = 8,9-13]
- * Liver
 - Eosinophilic Focus
- * Lung
 - Inflammation
- Lymph Node
 - Erythrophagocytosis
 - Mediastinal
 - Erythrophagocytosis
- [Erythrophagocytosis TGLs = 18,19-23]
- [Erythrophagocytosis TGLs = 16,17-24]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 554

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-554

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|------------------------|
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| * Mammary Gland | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 20-22] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| | [Hyperplasia TGLs = 13-6] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Preputial Gland | Duct | Dilation | Marked |
| | [Dilation TGLs = 3-16] | | |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| | [Decreased Secretory Fluid TGLs = 6-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | | Basal Cell Adenoma | |
| | Subcut Tiss | Fibroma | |
| | [Basal Cell Adenoma TGLs = 1-20] | | |
| | [Fibroma TGLs = 2-21] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | Red Pulp | Atrophy | Minimal |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Moderate |
| | Artery | Inflammation | Chronic Active, Marked |
| | [Degeneration TGLs = 4-16A] | | |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Adenoma | |
| | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 554

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-554

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGLs 7,15 = NCL (No Corresponding Lesion)

Animal Note: TGL 12 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 555

TRT#: 1

SEX: Male

DAY ON TEST: 662

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-555

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Small, Ileum
- * Prostate
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Intestine Large, Rectum
- * Pituitary Gland
- * Skin
- * Thyroid Gland
- * Esophagus
- * Intestine Small, Duodenum
- * Preputial Gland
- * Spinal Cord, Cervical
- * Trachea

MISSING

- * Lymph Node, Mandibular
- * Mammary Gland
- * Nerve Trigeminal

OBSERVATIONS

- * Adrenal Cortex
 - Necrosis Mild
 - Vacuolation, Cytoplasmic Moderate
- * Adrenal Medulla
 - Hyperplasia Minimal
 - Pheochromocytoma Benign
- * Bone
 - Fibrous Osteodystrophy Mild
- * Epididymis
 - Granuloma Sperm Moderate
 - Hypospermia Marked
- [Hypospermia TGLs = 6-16A]
- * Eye
 - Note: One retina available for evaluation.
- * Heart
 - Cardiomyopathy Moderate
- Ventricl Rgt
 - Cardiomyopathy Minimal
- * Intestine Large, Cecum
 - Edema Mild
 - Erosion Moderate
 - Inflammation Acute, Moderate
- * Intestine Large, Colon
 - Artery Inflammation Chronic Active, Minimal
 - Epithelium Regeneration Mild
- * Islets, Pancreatic
 - Hyperplasia Minimal
- * Kidney
 - Renal Tubule Cyst
 - Nephropathy Chronicprogr, Marked
- [Cyst TGLs = 4-20]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 555

TRT#: 1

SEX: Male

DAY ON TEST: 662

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-555

ORGAN AND ACCOUNTABLE SITE STATUS

[Nephropathy TGLs = 1,3-13]

| | | | |
|-----------------------------|---|-------------------------------|--------------------------|
| * Liver | Bile Duct | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 2-10] | | |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Mild |
| Mesentery | Artery | Inflammation | Chronic Active, Marked |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | [Decreased Secretory Fluid TGLs = 8-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spleen | White Pulp | Atrophy | Minimal |
| | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Stomach, Glandular | | Mineral | Minimal |
| * Testis | Germ Cell | Degeneration | Moderate |
| | Artery | Inflammation | Chronic Active, Marked |
| | [Degeneration TGLs = 5-16A] | | |
| * Thymus | | Atrophy | Marked |
| | | Cyst | |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 7,9 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 557

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-557

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Stomach, Glandular
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Skeletal Muscle
- * Thyroid Gland
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nose
- * Skin
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hyperplasia
 - Hypertrophy
 - [Hypertrophy TGLs = 1-7]
- * Adrenal Medulla
 - Hyperplasia
- * Brain
 - Note: Vacuolization affecting the anterior hypothalamic nuclei.
- * Eye
 - Retina
 - Retrobulbar
 - Atrophy
 - Schwannoma Malignant
 - Schwannoma Malignant
- * Harderian Gland
 - Schwannoma Malignant
- * Heart
 - Cardiomyopathy
- * Kidney
 - Nephropathy
 - [Nephropathy TGLs = 2-13]
- * Liver
 - Bile Duct
 - Clear Cell Focus
 - Hyperplasia
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - Infiltration Cellular
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- Mesentery
 - Artery
 - Inflammation
- * Nerve Trigeminal
 - Degeneration
- * Pancreas
 - Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 557

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-557

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|--------------------------|
| | Artery | Carcinoma Inflammation | Chronic Active, Mild |
| [Adenoma TGLs = 3-6] | | | |
| [Carcinoma TGLs = 3-6] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Marked |
| * Preputial Gland | | Inflammation | Chronic Active, Moderate |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | Artery | Inflammation | Chronic Active, Marked |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| | | Ectopic Parathyroid Gland | |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 558

TRT#: 1

SEX: Male

DAY ON TEST: 685

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-558

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Bone Marrow
- * Intestine Small, Duodenum
- * Mammary Gland
- * Spinal Cord, Thoracic
- * Brain
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Stomach, Forestomach
- * Esophagus
- * Islets, Pancreatic
- * Skin
- * Trachea

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

| | | | |
|---------------------------|-------------------------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Moderate |
| | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Mild |
| * Bone | | Fibrous Osteodystrophy | Mild |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| | | Hypospermia | Marked |
| * Eye | Cornea | Inflammation | Acute, Moderate |
| | Antr Chamber | Inflammation | Acute, Moderate |
| * Heart | | Cardiomyopathy | Minimal |
| * Intestine Large, Cecum | | Erosion | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| | | Inflammation | Acute, Moderate |
| | Epithelium | Regeneration | Moderate |
| * Intestine Large, Colon | Artery | Inflammation | Chronic Active, Mild |
| * Intestine Large, Rectum | | Inflammation | Acute, Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 3,4-13] | | |
| * Liver | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 558

TRT#: 1

SEX: Male

DAY ON TEST: 685

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-558

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Approximately one-third of level 3 available for evaluation.

| | | | |
|-----------------------------|---|---------------------------|----------------------|
| * Pancreas | Acinus | Atrophy | Minimal |
| | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 5-16] | | |
| * Prostate | | Decreased Secretory Fluid | Mild |
| | [Decreased Secretory Fluid TGLs = 6-16] | | |
| * Salivary Glands | Parotid GI | Atrophy | Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| | [Decreased Secretory Fluid TGLs = 2-16] | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Moderate |
| | | Pigment | Mild |
| * Stomach, Glandular | | Mineral | Minimal |
| * Testis | Germ Cell | Degeneration | Marked |
| | Artery | Inflammation | Chronic Active, Mild |
| | [Degeneration TGLs = 1-16A] | | |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 559

TRT#: 1

SEX: Male

DAY ON TEST: 582

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-559

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Brain | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Liver | * Lung |
| * Mammary Gland | * Pituitary Gland | * Prostate | * Salivary Glands |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Spinal Cord, Thoracic |
| * Stomach, Forestomach | * Thyroid Gland | * Trachea | * Urinary Bladder |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|--------------------------|--------------------------------|------------------------|--------------------------|
| * Adrenal Medulla | | Hyperplasia | Mild |
| * Aorta | | Mineral | Mild |
| * Bone | | Fibrous Osteodystrophy | Minimal |
| * Bone Marrow | | Hypercellularity | Mild |
| * Epididymis | | Exfoliated Germ Cell | Mild |
| | | Hypospermia | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Intestine Large, Cecum | Artery | Inflammation | Chronic Active, Moderate |
| | Epithelium | Regeneration | Moderate |
| | | Ulcer | Mild |
| * Islets, Pancreatic | | Hyperplasia | Mild |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 7,10-13] | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| | [Hyperplasia TGLs = 1-9] | | |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Minimal |
| Mesentery | Vein | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 559

TRT#: 1

SEX: Male

DAY ON TEST: 582

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-559

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|--------------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Atrophy | Minimal |
| | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| | [Decreased Secretory Fluid TGLs = 2-16] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Moderate |
| | Red Pulp | Atrophy | Mild |
| | [Atrophy TGLs = 6-12] | | |
| * Stomach, Glandular | | Mineral | Mild |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Mild |
| | [Degeneration TGLs = 3-16A] | | |
| * Thymus | | Atrophy | Marked |
| Tissue NOS | Abdominal, Fat | Hemorrhage | Moderate |
| | Fat | Necrosis | Moderate |
| | [Hemorrhage TGLs = 9-20] | | |
| | [Necrosis TGLs = 8-21] | | |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 4,5= NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 560

TRT#: 1

SEX: Male

DAY ON TEST: 595

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-560

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Bone Marrow
- * Brain
- * Esophagus
- * Harderian Gland
- * Islets, Pancreatic
- * Lung
- * Lymph Node, Mandibular
- * Lymph Node, Mesenteric
- * Nerve Trigeminal
- * Pituitary Gland
- * Preputial Gland
- * Prostate
- * Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Spinal Cord, Lumbar
- * Spinal Cord, Thoracic
- * Stomach, Forestomach
- * Thyroid Gland
- * Trachea
- * Trigeminal Ganglion
- * Urinary Bladder

MISSING

- * Parathyroid Gland

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Stomach, Glandular

OBSERVATIONS

- * Aorta
- Mineral
- Minimal
- * Bone
- Fibrous Osteodystrophy
- Minimal
- * Brain
- Note: Olfactory bulbs unavailable for evaluation.
- * Epididymis
- Exfoliated Germ Cell
- Moderate
- * Eye
- Cornea
- Inflammation
- Acute, Mild
- * Heart
- Cardiomyopathy
- Mild
- * Kidney
- Ventricle Rgt
- Cardiomyopathy
- Minimal
- Artery
- Mineral
- Mild
- Nephropathy
- Chronicprogr, Marked
- [Nephropathy TGLs = 1-13]
- * Liver
- Eosinophilic Focus
- * Mammary Gland
- Atrophy
- Marked
- Mesentery
- Artery
- Inflammation
- Chronic Active, Mild
- Artery
- Mineral
- Mild
- * Nose
- Olfactory Epi
- Accumulation, Hyaline Droplet
- Moderate
- * Pancreas
- Acinus
- Hyperplasia
- Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 560

TRT#: 1

SEX: Male

DAY ON TEST: 595

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-560

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|---------------------------|-------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Salivary Glands | Parotid Gland | Atrophy | Minimal |
| | Artery | Inflammation | Chronic Active, Minimal |
| | Artery | Mineral | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| * Spleen | White Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 561

TRT#: 1

SEX: Male

DAY ON TEST: 662

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-561

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Bone Marrow
- * Brain
- * Esophagus
- * Harderian Gland
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Lymph Node, Mandibular
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Pituitary Gland
- * Preputial Gland
- * Prostate
- * Salivary Glands
- * Skin
- * Spinal Cord, Cervical
- * Stomach, Forestomach
- * Thyroid Gland
- * Trachea
- * Urinary Bladder

MISSING

Trigeminal Ganglion

OBSERVATIONS

- * Aorta
 - [Mineral TGLs = 10-11]
 - * Bone
 - [Hypospermia TGLs = 4-16A]
 - * Epididymis
 - * Eye
 - * Heart
 - [Cyst TGLs = 1,2-13]
 - [Nephropathy TGLs = 6,7-13]
 - * Intestine Large, Cecum
 - * Kidney
 - [Infiltration Cellular TGLs = 5-10]
 - * Liver
 - * Lung
 - [Infiltration Cellular TGLs = 5-10]
 - Mesentery
 - * Nerve Trigeminal
- | | | |
|--|------------------------|----------------------|
| | Mineral | Mild |
| | Fibrous Osteodystrophy | Mild |
| | Exfoliated Germ Cell | Mild |
| | Hypospermia | Mild |
| | Inflammation | Acute, Minimal |
| | Cornea | |
| | Cardiomyopathy | Mild |
| | Ventricl Rgt | |
| | Cardiomyopathy | Minimal |
| | Artery | |
| | Mineral | Mild |
| | Regeneration | Moderate |
| | Epithelium | |
| | Cyst | |
| | Renal Tubule | |
| | Nephropathy | Chronicprogr, Marked |
| | Hyperplasia | Minimal |
| | Infiltration Cellular | Histiocyte, Minimal |
| | Inflammation | Chronic Active, Mild |
| | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 561

TRT#: 1

SEX: Male

DAY ON TEST: 662

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-561

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|-------------------------------|--------------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | [Decreased Secretory Fluid TGLs = 11-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | White Pulp | Atrophy | Moderate |
| | Red Pulp | Atrophy | Moderate |
| | | Pigment | Moderate |
| | [Atrophy TGLs = 8-12] | | |
| * Stomach, Glandular | | Mineral | Minimal |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Marked |
| | [Degeneration TGLs = 3-16A] | | |
| * Thymus | | Atrophy | Marked |
| | Artery | Inflammation | Chronic Active, Moderate |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGL 12 = NCL (No Corresponding Lesion)

Animal Note: TGL 9 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 562

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-562

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Mammary Gland | * Parathyroid Gland |
| * Pituitary Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Thymus | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

| | | | |
|---------------------------------------|---------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| [Hyperplasia TGLs = 4-7] | | | |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| [Nephropathy TGLs = 2,3-13] | | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| [Mixed Cell Focus TGLs = 5-12] | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| [Infiltration Cellular TGLs = 7-10] | | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Moderate |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Adenoma | |
| [Adenoma TGLs = 6-6] | | Hyperplasia | Mild |
| [Hyperplasia TGLs = 6-14] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | Duct | Dilation | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 562

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-562

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|-------------------------|
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Stomach, Glandular | | Inflammation | Acute, Minimal |
| * Testis | Artery | Inflammation | Chronic Active, Minimal |
| * Thyroid Gland | C Cell | Adenoma | |
| | C Cell | Hyperplasia | Minimal |

Animal Note: TGLs 1,8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 563

TRT#: 1

SEX: Male

DAY ON TEST: 663

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-563

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone Marrow | * Esophagus |
| * Harderian Gland | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Lymph Node, Mesenteric | * Mammary Gland | * Nerve Trigeminal |
| * Prostate | * Skin | * Stomach, Glandular | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|-------------------------------|--------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Minimal |
| * Bone | | Fibrous Osteodystrophy | Minimal |
| * Brain | Pineal Gland | Mineral | Minimal |
| | Pineal Gland | Vacuolation, Cytoplasmic | Mild |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| * Eye | Cornea, Epithelium | Hyperplasia | Moderate |
| | Cornea | Inflammation | Acute, Moderate |
| * Heart | | Cardiomyopathy | Minimal |
| * Intestine Large, Cecum | Artery | Inflammation | Chronic Active, Mild |
| * Intestine Large, Colon | Artery | Inflammation | Chronic Active, Mild |
| * Islets, Pancreatic | | Carcinoma | |
| | [Carcinoma TGLs = 5-6] | | |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 3,4-13] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | [Infiltration Cellular TGLs = 2-10] | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| Mesentery | Artery | Inflammation | Chronic Active, Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 563

TRT#: 1

SEX: Male

DAY ON TEST: 663

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-563

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|---------------|------------------------------|--------------------------|
| | Artery | Inflammation | Chronic Active, Mild |
| [Hyperplasia TGLs = 5-6] | | | |
| * Parathyroid Gland | | Adenoma | |
| | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Mild |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Stomach, Forestomach | | Edema | Mild |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| [Degeneration TGLs = 1-16A] | | | |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Ectopic Parathyroid Gland | |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 564

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-564

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Salivary Glands
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Seminal Vesicle
- * Stomach, Forestomach
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Nose
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Skin
- * Testis

MISSING

- * Adrenal Medulla
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Brain
- [Compression TGLs = 4-2]
- * Heart
- * Kidney
- [Nephropathy TGLs = 2-13]
- * Liver
- * Lung
- Mesentery
- * Pancreas
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- [Adenoma TGLs = 3-4]
- * Preputial Gland
- [Dilation TGLs = 1-16.1]
- * Prostate
- Pineal Gland
- Alveolus
- Artery
- Acinus
- Pars Distalis
- Duct
- Artery
- Accessory Adrenal Cortical Nodule
- Compression
- Mineral
- Cardiomyopathy
- Nephropathy
- Mixed Cell Focus
- Infiltration Cellular
- Inflammation
- Hyperplasia
- Degeneration
- Degeneration
- Adenoma
- Dilation
- Inflammation
- Inflammation
- Minimal
- Minimal
- Minimal
- Chronicprogr, Moderate
- Histiocyte, Minimal
- Chronic Active, Marked
- Mild
- Mild
- Mild
- Moderate
- Chronic Active, Mild
- Chronic Active, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 564

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-564

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------|------------------------------|---------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 565

TRT#: 1

SEX: Male

DAY ON TEST: 715

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-565

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|--------------------------|-----------------------------|
| * Adrenal Cortex | * Bone Marrow | * Brain | * Esophagus |
| * Eye | * Harderian Gland | * Intestine Large, Colon | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lymph Node, Mandibular | * Mammary Gland |
| * Salivary Glands | * Skin | * Spinal Cord, Cervical | * Spinal Cord, Lumbar |
| * Stomach, Forestomach | * Thyroid Gland | * Trachea | Trigeminal Ganglion |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|---------------------------|---|------------------------|-------------|
| * Adrenal Medulla | | Hyperplasia | Mild |
| * Aorta | | Mineral | Moderate |
| | [Mineral TGLs = 11-11] | | |
| * Bone | | Fibrous Osteodystrophy | Mild |
| * Brain | | | |
| | Note: Olfactory bulbs unavailable for evaluation. | | |
| * Epididymis | | Exfoliated Germ Cell | Mild |
| * Eye | | | |
| | Note: One cornea available for evaluation. | | |
| * Heart | | Cardiomyopathy | Marked |
| | Ventricle Rgt | Cardiomyopathy | Mild |
| | Atrium, Myocardium | Hypertrophy | Moderate |
| | Artery | Mineral | Mild |
| | Atrium | Thrombus | Moderate |
| | [Cardiomyopathy TGLs = 22-11] | | |
| * Intestine Large, Cecum | | Edema | Minimal |
| | | Erosion | Moderate |
| | | Inflammation | Acute, Mild |
| | Epithelium | Regeneration | Marked |
| | [Edema TGLs = 15-15] | | |
| * Intestine Large, Rectum | | Erosion | Minimal |
| * Islets, Pancreatic | | Hyperplasia | Mild |
| * Kidney | Renal Tubule | Cyst | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 565

TRT#: 1

SEX: Male

DAY ON TEST: 715

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-565

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|---|------------------------------|
| | Urothelium | Hyperplasia Nephropathy Oncocytoma Benign | Mild Chronicprogr, Marked |
| | [Cyst TGLs = 2-20] [Nephropathy TGLs = 1,4,5-13] [Oncocytoma Benign TGLs = 3-13,21] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 12-10] | | |
| Lymph Node | Iliac, Lymph Sinus | Ectasia | Mild |
| | Renal | Erythrophagocytosis | Moderate |
| | Iliac | Proliferation | Plasma Cell, Mild |
| | [Erythrophagocytosis TGLs = 17,18-20] [Proliferation TGLs = 19-21] | | |
| * Lymph Node, Mesenteric | | Infiltration Cellular | Histiocyte, Mild |
| Mesentery | Artery | Mineral | Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | | Adenoma | Multiple |
| | Acinus | Hyperplasia | Moderate |
| | Artery | Inflammation | Chronic Active, Minimal |
| | [Adenoma TGLs = 16-6,14] | | |
| * Parathyroid Gland | | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 14-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Intermed | Cyst | |
| * Preputial Gland | Duct | Dilation | Minimal |
| * Prostate | | Inflammation | Acute, Marked |
| | [Inflammation TGLs = 9,21-16] | | |
| * Seminal Vesicle | | Inflammation | Acute, Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 565

TRT#: 1

SEX: Male

DAY ON TEST: 715

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-565

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLs = 8-16]

| | | | |
|--------------------------|------------|--------------|----------------------|
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Moderate |
| | Red Pulp | Atrophy | Moderate |
| [Atrophy TGLs = 13-12] | | | |
| * Stomach, Glandular | | Mineral | Marked |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Marked |

[Atrophy TGLs = 10-6]

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 6,7 = NCL (No Corresponding Lesion)

Animal Note: TGL 20 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 566

TRT#: 1

SEX: Male

DAY ON TEST: 641

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-566

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Islets, Pancreatic
- * Mammary Gland
- * Skin
- * Thyroid Gland
- * Esophagus
- * Lung
- * Nerve Trigeminal
- * Spinal Cord, Cervical
- * Trachea
- * Harderian Gland
- * Lymph Node, Mandibular
- * Pituitary Gland
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Prostate
- * Stomach, Forestomach
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Ileum

OBSERVATIONS

- * Adrenal Medulla
 - * Aorta
 - [Mineral TGLs = 2-11]
 - * Bone
 - * Bone Marrow
 - * Brain
 - * Epididymis
 - * Eye
 - Cornea
 - Cornea
 - * Heart
 - Ventricl Rgt
 - Myocardium
 - Artery
 - * Kidney
 - [Nephropathy TGLs = 4,5-13]
 - * Liver
 - Mesentery
 - Artery
 - Artery
- Hyperplasia
 - Mineral
 - Fibrous Osteodystrophy
 - Hypercellularity
 - Infiltration Cellular
 - Exfoliated Germ Cell
 - Hypospermia
 - Inflammation
 - Ulcer
 - Cardiomyopathy
 - Cardiomyopathy
 - Mineral
 - Mineral
 - Nephropathy
 - Eosinophilic Focus
 - Hyperplasia
 - Mixed Cell Focus
 - Inflammation
 - Mineral
- Minimal
 - Moderate
 - Mild
 - Mild
 - Mononuclear CI, Minimal
 - Moderate
 - Moderate
 - Acute, Mild
 - Moderate
 - Mild
 - Minimal
 - Minimal
 - Mild
 - Chronicprogr, Marked
 - Minimal
 - Chronic Active, Mild
 - Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 566

TRT#: 1

SEX: Male

DAY ON TEST: 641

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-566

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------|-------------------------------|--------------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | Duct | Dilation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| [Decreased Secretory Fluid | TGLs = 3-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| | | Mineral | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| * Stomach, Glandular | | Mineral | Mild |
| * Testis | Germ Cell | Degeneration | Moderate |
| [Degeneration | TGLs = 1-16A] | | |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 567

TRT#: 1

SEX: Male

DAY ON TEST: 722

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-567

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Harderian Gland
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Trachea
- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- Trigeminal Ganglion
- * Brain
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Skin
- * Esophagus
- * Intestine Small, Duodenum
- * Mammary Gland
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia Mild
 - Hypertrophy Minimal
 - Vacuolation, Cytoplasmic Minimal
- * Aorta
 - Mineral Minimal
- * Bone
 - Fibrous Osteodystrophy Minimal
- * Epididymis
 - Exfoliated Germ Cell Minimal
- * Eye
 - Cornea, Epithelium Hyperplasia Mild
 - Cornea Inflammation Acute, Marked
 - Cornea Ulcer Mild
- * Heart
 - Cardiomyopathy Moderate
 - Ventricl Rgt Cardiomyopathy Minimal
 - Valve Inflammation Chronic Active, Mild
 - Myocardium Mineral Mild
 - Myocardium Necrosis Mild
 - Thrombus Mild
- * Intestine Large, Cecum
 - Erosion Mild
 - Inflammation Acute, Mild
- * Islets, Pancreatic
 - Adenoma
- * Kidney
 - [Adenoma TGLs = 12-6]
 - Pelvis
 - Dilation Mild
 - Nephropathy Chronicprogr, Marked
 - [Dilation TGLs = 17-13]
 - [Nephropathy TGLs = 13,14,15-13]
- * Liver
 - Periductal Cholangiofibrosis Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 567

TRT#: 1

SEX: Male

DAY ON TEST: 722

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-567

ORGAN AND ACCOUNTABLE SITE STATUS

Eosinophilic Focus

Bile Duct

Hyperplasia

Mild

Note: Intestinal metaplasia of bile ducts within region of fibrosis.

[Cholangiofibrosis TGLs = 16-12]

* Lung

Alveolus

Infiltration Cellular

Histiocyte, Minimal

[Infiltration Cellular TGLs = 9-10]

Lymph Node

Lumbar

Erythrophagocytosis

Minimal

[Erythrophagocytosis TGLs = 18-21]

* Lymph Node, Mandibular

Lymph Sinus

Ectasia

Mild

[Ectasia TGLs = 8-9]

* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Minimal

* Pancreas

Artery

Adenoma

Inflammation

Chronic Active, Mild

[Adenoma TGLs = 12-6]

* Parathyroid Gland

Hyperplasia

Mild

[Hyperplasia TGLs = 11-8]

* Peripheral Nerve, Sciatic

Degeneration

Marked

* Peripheral Nerve, Tibial

Degeneration

Marked

* Preputial Gland

Duct

Dilation

Minimal

* Prostate

Hemorrhage

Mild

Inflammation

Acute, Mild

* Salivary Glands

Parotid GI

Vacuolation, Cytoplasmic

Mild

* Seminal Vesicle

Epithelium

Hemorrhage

Mild

Hyperplasia

Minimal

Inflammation

Acute, Minimal

[Hemorrhage TGLs = 4,5-16]

Skeletal Muscle

Degeneration

Mild

* Spinal Cord, Cervical

Degeneration

Minimal

* Spinal Cord, Lumbar

Nerve

Degeneration

Mild

* Spinal Cord, Thoracic

Degeneration

Minimal

* Spleen

White Pulp

Atrophy

Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 567

TRT#: 1

SEX: Male

DAY ON TEST: 722

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-567

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------|------------|------------------------------|--------------------------|
| * Stomach, Forestomach | Epithelium | Extramedullary Hematopoiesis | Minimal |
| * Stomach, Glandular | | Pigment | Mild |
| * Testis | Artery | Hyperplasia | Moderate |
| * Thymus | | Mineral | Mild |
| * Urinary Bladder | | Inflammation | Chronic Active, Moderate |
| | | Atrophy | Marked |
| | | Hemorrhage | Marked |
| | | Inflammation | Acute, Moderate |

[Hemorrhage TGLs = 6,7-13]

PRIMARY CAUSE OF DEATH - Urinary Bladder Hemorrhage

CONTRIBUTORY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 1,10 = NCL (No Corresponding Lesion)

Animal Note: TGLs 2,3 = NCL

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 569

TRT#: 1

SEX: Male

DAY ON TEST: 659

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-569

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Bone Marrow | * Esophagus | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Preputial Gland | * Prostate | * Seminal Vesicle | * Skin |
| * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Thyroid Gland | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

MISSING

- | | |
|-----------------|---------------------|
| * Mammary Gland | * Parathyroid Gland |
|-----------------|---------------------|

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|------------------------|-----------------------|
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Aorta | | Mineral | Moderate |
| * Bone | | Fibrous Osteodystrophy | Minimal |
| * Brain | | Necrosis | Mild |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| * Eye | Cornea, Epithelium | Hyperplasia | Moderate |
| | Cornea | Inflammation | Acute, Marked |
| | Cornea | Ulcer | Moderate |
| * Heart | | Cardiomyopathy | Marked |
| | Ventricl Rgt | Cardiomyopathy | Mild |
| | Artery | Mineral | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 4,5-13] | | |
| * Liver | Hepatocyte | Necrosis | Mild |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | Interstitial | Mineral | Mild |
| | [Infiltration Cellular TGLs = 2-10] | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Moderate |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| | Artery | Mineral | Mild |
| * Nerve Trigeminal | | Degeneration | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 569

TRT#: 1

SEX: Male

DAY ON TEST: 659

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-569

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|------------------|-------------------------------|-------------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Moderate |
| | Artery | Mineral | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Hyperplasia | Mild |
| [Adenoma TGLs = 10-4] | | | |
| * Salivary Glands | Duct, Parotid GI | Dilation | Moderate |
| | Parotid GI | Inflammation | Acute, Moderate |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Minimal |
| [Atrophy TGLs = 6-12] | | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| | | Squamous Cell Papilloma | |
| * Stomach, Glandular | | Inflammation | Chronic Active, Minimal |
| | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Mild |
| [Degeneration TGLs = 1-16A] | | | |
| * Thymus | | Atrophy | Marked |
| | | Ectopic Parathyroid Gland | |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 3,7,9 = NCL (No Corresponding Lesion)

Animal Note: TGL 8 = NST (No Section Taken)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 570

TRT#: 1

SEX: Male

DAY ON TEST: 666

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-570

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- * Brain
- * Intestine Large, Rectum
- * Lung
- * Skin
- * Thyroid Gland
- * Esophagus
- * Intestine Small, Duodenum
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea
- * Harderian Gland
- * Intestine Small, Ileum
- * Preputial Gland
- * Spinal Cord, Thoracic
- * Urinary Bladder

MISSING

- * Mammary Gland
- * Thymus

INSUFFICIENT TISSUE

- * Nerve Trigeminal

OBSERVATIONS

- | | | | |
|--------------------------|------------------------------|--------------------------|----------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| | | Thrombus | Mild |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Adrenal Medulla | | Hyperplasia | Mild |
| * Aorta | | Mineral | Minimal |
| * Bone | | Fibrous Osteodystrophy | Moderate |
| * Epididymis | | Exfoliated Germ Cell | Moderate |
| | | Hypospermia | Marked |
| | [Hypospermia TGLs = 9-16A] | | |
| * Eye | Cornea | Inflammation | Acute, Mild |
| * Heart | | Cardiomyopathy | Mild |
| * Intestine Large, Cecum | | Edema | Minimal |
| | | Erosion | Moderate |
| | Artery | Inflammation | Chronic Active, Mild |
| | Epithelium | Regeneration | Mild |
| * Islets, Pancreatic | | Carcinoma | |
| * Kidney | Renal Tubule | Cyst | |
| | | Nephropathy | Chronicprogr, Marked |
| | [Cyst TGLs = 1,2,3-13,20] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 570

TRT#: 1

SEX: Male

DAY ON TEST: 666

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-570

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|-------------------------------|---|
| | [Nephropathy TGLs = 4,5-13] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| * Lymph Node, Mandibular | | Hyperplasia Proliferation | Lymphocyte, Moderate Plasma Cell, Mild |
| | [Hyperplasia TGLs = 6-9] | | |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Moderate |
| | [Erythrophagocytosis TGLs = 7-15] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 17-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Prostate | | Decreased Secretory Fluid | Mild |
| | [Decreased Secretory Fluid TGLs = 11-16] | | |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| | [Decreased Secretory Fluid TGLs = 8-16] | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spleen | White Pulp | Atrophy | Marked |
| | Red Pulp | Atrophy | Moderate |
| | | Pigment | Moderate |
| | [Atrophy TGLs = 12-12] | | |
| * Stomach, Glandular | | Mineral | Mild |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| | [Degeneration TGLs = 10-16A] | | |
| Tissue NOS | Mediastinum | Schwannoma Malignant | |
| | [Schwannoma Malignant TGLs = 13-6] | | |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Tissue NOS Mediastinum Schwannoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 570

TRT#: 1

SEX: Male

DAY ON TEST: 666

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-570

ORGAN AND ACCOUNTABLE SITE STATUS

CONTRIBUTORY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGL 16 = NCL (No Corresponding Lesion)

Animal Note: TGLs 14,15 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 571

TRT#: 1

SEX: Male

DAY ON TEST: 604

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-571

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- Skeletal Muscle
- Trigeminal Ganglion
- * Brain
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Esophagus
- * Intestine Small, Duodenum
- * Lung
- * Parathyroid Gland
- * Stomach, Forestomach
- * Harderian Gland
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Prostate
- * Trachea

MISSING

- * Preputial Gland

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Bone
- * Bone Marrow
- * Epididymis
- * Eye
- * Heart
- * Intestine Large, Cecum
- * Kidney
- [Mineral TGLs = 4-13]
- [Nephropathy TGLs = 5-13]
- * Liver
- [Degeneration TGLs = 7-12]
- * Lymph Node, Mandibular
- * Nose
- Hypertrophy
- Hyperplasia
- Fibrous Osteodystrophy
- Hypercellularity
- Exfoliated Germ Cell
- Inflammation
- Cardiomyopathy
- Mineral
- Mineral
- Erosion
- Regeneration
- Mineral
- Nephropathy
- Mild
- Moderate
- Minimal
- Moderate
- Minimal
- Acute, Minimal
- Minimal
- Minimal
- Moderate
- Mild
- Mild
- Moderate
- Chronicprogr, Moderate
- Moderate
- Minimal
- Plasma Cell, Minimal
- Minimal
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 571

TRT#: 1

SEX: Male

DAY ON TEST: 604

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-571

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|------------------------------|---------|
| * Pancreas | Acinus | Hyperplasia | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Intermed | Cyst | |
| * Salivary Glands | Parotid Gl | Atrophy | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| | [Decreased Secretory Fluid TGLs = 2-16] | | |
| * Skin | Subcut Tiss | Fibrosarcoma | |
| | | Keratoacanthoma | |
| | [Fibrosarcoma TGLs = 1-20] | | |
| | [Keratoacanthoma TGLs = 9-21] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | | Extramedullary Hematopoiesis | Marked |
| | [Extramedullary Hematopoiesis TGLs = 3-12] | | |
| * Stomach, Glandular | | Mineral | Mild |
| * Testis | Germ Cell | Degeneration | Minimal |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Fibrosarcoma

Animal Note: TGLs 6,8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 572

TRT#: 1

SEX: Male

DAY ON TEST: 691

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-572

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Small, Ileum
- * Mammary Gland
- * Spinal Cord, Thoracic
- * Trachea
- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Brain
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- * Esophagus
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Spinal Cord, Cervical
- * Thyroid Gland

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration Minimal
 - Vacuolation, Cytoplasmic Mild
- * Adrenal Medulla
 - Hyperplasia Minimal
- * Bone
 - Fibrous Osteodystrophy Moderate
- * Epididymis
 - Hypospermia TGLs = 9-16A]
 - Hypospermia Marked
- * Eye
 - Cornea
 - Inflammation Acute, Minimal
- * Heart
 - Cardiomyopathy Moderate
- * Kidney
 - Nephropathy TGLs = 4,5-13]
 - Nephropathy Chronic progr, Marked
- * Liver
 - Hepatocyte
 - Necrosis Minimal
 - Hepatocyte
 - Vacuolation, Cytoplasmic Moderate
 - [Vacuolation, Cytoplasmic TGLs = 7-12]
- * Lung
 - Alveolus
 - Infiltration Cellular Histiocyte, Minimal
- * Lymph Node, Mesenteric
 - Erythrophagocytosis Mild
- * Nerve Trigeminal
 - Degeneration Moderate
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet Minimal
- * Pancreas
 - Artery
 - Adenoma
 - Inflammation Chronic Active, Minimal
- * Parathyroid Gland
 - [Adenoma TGLs = 2-6]
 - Hyperplasia Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 572

TRT#: 1

SEX: Male

DAY ON TEST: 691

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-572

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------------|---------------------------|--------------------------|
| | [Hyperplasia TGLs = 10-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | Duct | Dilation | Mild |
| * Prostate | | Inflammation | Acute, Marked |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | | Inflammation | Acute, Moderate |
| Skeletal Muscle | | Degeneration | Moderate |
| * Skin | Sebaceous Gl | Adenoma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Moderate |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Marked |
| | Artery | Inflammation | Chronic Active, Moderate |
| | [Degeneration TGLs = 8-16A] | | |
| * Thymus | | Atrophy | Marked |
| * Urinary Bladder | | Hemorrhage | Mild |
| | | Inflammation | Acute, Mild |
| | | Necrosis | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 3,6 = NCL (No Corresponding Lesion)

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56
Test Type: CHRONIC
Route: Whole Body Exposure
Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Cell Phone Radiation: CDMA
CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018
Time Report Requested: 13:31:21
First Dose M/F: 09/16/12 / 09/16/12
Lab: IIT

ANIMAL ID: 573

TRT#: 1

SEX: Male

DAY ON TEST: 212

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-573

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|-----------------------------|---------------------------|--------------------------|-------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Brain | * Epididymis | * Esophagus |
| * Harderian Gland | * Intestine Large, Rectum | * Islets, Pancreatic | * Kidney |
| * Liver | * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nerve Trigeminal | * Nose | * Pancreas | * Parathyroid Gland |
| * Peripheral Nerve, Sciatic | * Pituitary Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Lumbar | * Spinal Cord, Thoracic | * Spleen | * Stomach, Forestomach |
| * Testis | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

* Peripheral Nerve, Tibial

AUTO PRECLUDES DIAG.

| | | | |
|--------------------------|----------------------------|--------------------------|-----------------------------|
| * Eye | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Stomach, Glandular | * Thyroid Gland |

OBSERVATIONS

| | | | |
|--|--|--------------------|----------------------|
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation | | | |
| * Heart | | Lymphoma Malignant | |
| * Lung | | Lymphoma Malignant | |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| * Thymus | | Lymphoma Malignant | |
| [Lymphoma Malignant TGLs = 3-6] | | | |

PRIMARY CAUSE OF DEATH - Thymus Lymphoma Malignant

Animal Note: TGLs 1,2 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 574

TRT#: 1

SEX: Male

DAY ON TEST: 624

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-574

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Epididymis
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Testis
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Spinal Cord, Thoracic
- * Thyroid Gland
- * Bone
- * Harderian Gland
- * Nose
- Skeletal Muscle
- * Stomach, Forestomach
- * Trachea
- * Bone Marrow
- * Intestine Large, Colon
- * Pancreas
- * Skin
- * Stomach, Glandular
- Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Jejunum
- * Intestine Large, Cecum
- * Intestine Large, Rectum
- * Intestine Small, Duodenum

OBSERVATIONS

- * Adrenal Medulla
 - * Brain
 - Note: Olfactory bulbs not available for evaluation.
 - * Heart
 - * Islets, Pancreatic
 - * Kidney
 - [Nephropathy TGLs = 7-13]
 - * Liver
 - * Lung
 - [Congestion TGLs = 3-10]
 - * Lymph Node, Mandibular
 - * Mammary Gland
 - * Nerve Trigeminal
 - * Peripheral Nerve, Sciatic
 - * Peripheral Nerve, Tibial
 - * Pituitary Gland
 - [Adenoma TGLs = 4-4]
 - * Preputial Gland
- Hyperplasia
Compression
Cardiomyopathy
Adenoma
Nephropathy
Hyperplasia
Congestion
Proliferation
Dilation
Degeneration
Degeneration
Degeneration
Adenoma
Dilation
Inflammation
- Minimal
Mild
Minimal
Chronicprogr, Marked
Minimal
Mild
Plasma Cell, Mild
Mild
Minimal
Mild
Mild
Mild
Mild
Mild
Chronic Active, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 574

TRT#: 1

SEX: Male

DAY ON TEST: 624

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-574

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLs = 1-16]

| | | | |
|-----------------------|------------|--------------|----------------|
| * Prostate | | Inflammation | Acute, Minimal |
| * Salivary Glands | Parotid GI | Atrophy | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spleen | White Pulp | Atrophy | Minimal |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Moderate |

[Atrophy TGLs = 2-12]

| | | | |
|----------|--|---------|---------|
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 5,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56
Test Type: CHRONIC
Route: Whole Body Exposure
Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA
CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018
Time Report Requested: 13:31:21
First Dose M/F: 09/16/12 / 09/16/12
Lab: IIT

ANIMAL ID: 575

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-575

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Aorta | * Bone | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lung | * Lymph Node, Mesenteric | * Mammary Gland | * Nose |
| * Prostate | * Salivary Glands | Skeletal Muscle | * Spinal Cord, Cervical |
| * Stomach, Glandular | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

| | | | |
|--------------------------|---|--------------------------|--------------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| * Adrenal Medulla | | Pheochromocytoma Benign | |
| | [Pheochromocytoma Benign TGLs = 6-7] | | |
| * Bone Marrow | | Hypercellularity | Moderate |
| * Brain | Pineal Gland | Vacuolation, Cytoplasmic | Mild |
| | Note: Olfactory bulbs unavailable for evaluation. | | |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Heart | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| | [Cardiomyopathy TGLs = 9-21] | | |
| * Kidney | Renal Tubule | Cyst | |
| | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 7,8-13] | | |
| * Liver | | Mixed Cell Focus | |
| Lymph Node | Lymph Sinus, Mediastinal | Ectasia | Moderate |
| | Iliac | Infiltration Cellular | Histiocyte, Mild |
| | [Ectasia TGLs = 10-21] | | |
| | [Infiltration Cellular TGLs = 5-20] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Pancreas | Acinus | Hyperplasia | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 575

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-575

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|--------------------------|
| * Parathyroid Gland | Artery | Inflammation | Chronic Active, Moderate |
| * Peripheral Nerve, Sciatic | | Hyperplasia | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | | Degeneration | Moderate |
| * Preputial Gland | Pars Distalis | Cyst | |
| * Seminal Vesicle | Pars Distalis | Hyperplasia | Marked |
| * Skin | Duct | Dilation | Mild |
| [Fibroma TGLs = 3-20] | | Decreased Secretory Fluid | Minimal |
| * Spinal Cord, Lumbar | Subcut Tiss | Fibroma | |
| * Spinal Cord, Thoracic | Nerve | Degeneration | Mild |
| * Spleen | | Degeneration | Minimal |
| [Hyperplasia TGLs = 4-12] | | Extramedullary Hematopoiesis | Mild |
| * Stomach, Forestomach | | Hyperplasia | Lymphocyte, Minimal |
| * Testis | Epithelium | Hyperplasia | Marked |
| | | Inflammation | Chronic Active, Minimal |
| * Thymus | Germ Cell | Degeneration | Minimal |
| * Thyroid Gland | | Inflammation | Chronic Active, Marked |
| | C Cell | Atrophy | Minimal |
| | | Hyperplasia | Mild |

Animal Note: TGLs 1,11 = NCL (No Corresponding Lesion)

Animal Note: TGL 2 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 576

TRT#: 1

SEX: Male

DAY ON TEST: 630

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-576

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone Marrow
- * Harderian Gland
- * Lung
- * Pituitary Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Thyroid Gland
- * Esophagus
- * Islets, Pancreatic
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea
- * Eye
- * Liver
- * Mammary Gland
- * Spinal Cord, Thoracic
- Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Intestine Large, Colon
- * Intestine Small, Duodenum
- * Intestine Small, Ileum

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Epididymis
- * Heart
- * Kidney
- [Nephropathy TGLs = 4-13]
- Mesentery
- * Nerve Trigeminal
- * Nose
- * Pancreas
- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Preputial Gland
- * Prostate
- Ventricle Rgt
- Artery
- Artery
- Olfactory Epi
- Acinus
- Artery
- Hyperplasia
- Hyperplasia
- Mineral
- Fibrous Osteodystrophy
- Exfoliated Germ Cell
- Cardiomyopathy
- Cardiomyopathy
- Mineral
- Nephropathy
- Mineral
- Degeneration
- Accumulation, Hyaline Droplet
- Hyperplasia
- Inflammation
- Hyperplasia
- Degeneration
- Degeneration
- Inflammation
- Inflammation
- Mild
- Minimal
- Mild
- Minimal
- Minimal
- Minimal
- Mild
- Mild
- Mild
- Chronic Active, Marked
- Chronic Active, Marked
- Moderate
- Moderate
- Moderate
- Chronic Active, Moderate
- Chronic Active, Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 576

TRT#: 1

SEX: Male

DAY ON TEST: 630

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-576

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|---|---|--------------------------|
| | [Inflammation TGLs = 1-16.1] | | |
| * Seminal Vesicle | | Decreased Secretory Fluid Inflammation | Marked Acute, Marked |
| | [Decreased Secretory Fluid TGLs = 3-16.1] | | |
| | [Inflammation TGLs = 2-16.1] | | |
| * Skin | | Cyst Epithelial Inclusion | |
| | [Cyst Epithelial Inclusion TGLs = 5-20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | White Pulp | Atrophy | Minimal |
| | | Pigment | Mild |
| * Stomach, Glandular | | Mineral | Mild |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 6,7,8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 577

TRT#: 1

SEX: Male

DAY ON TEST: 671

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-577

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Intestine Small, Duodenum
- * Prostate
- * Skin
- * Trachea
- * Bone
- * Esophagus
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone Marrow
- * Eye
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Urinary Bladder
- * Brain
- * Harderian Gland
- * Pituitary Gland
- Skeletal Muscle
- * Thyroid Gland

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Ileum

INSUFFICIENT TISSUE

- * Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 Mild
Minimal
- * Adrenal Medulla
 - Hyperplasia
 Mild
- * Heart
 - Cardiomyopathy
 Minimal
- * Kidney
 - Nephropathy
 Chronicprogr, Marked
- Note: Multifocal pyogranuloma formation.
[Nephropathy TGLs = 3-13]
- Lacrimal Gland
 - Metaplasia
 Harderian GI, Moderate
- Note: Consistent with Harderian gland alteration.
[Metaplasia TGLs = 5-20]
- * Liver
 - Bile Duct
 - Hyperplasia
 - Mixed Cell Focus
 Minimal
- * Lung
 - Inflammation
 Subacute, Mild
- * Lymph Node, Mandibular
 - Ectasia
 - Hyperplasia
 - Proliferation
 Mild
Lymphocyte, Mild
Plasma Cell, Minimal
- * Lymph Node, Mesenteric
 - Hyperplasia
 Lymphocyte, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 577

TRT#: 1

SEX: Male

DAY ON TEST: 671

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-577

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------------------|-------------------------------|--------------------------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | Acinus | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 2-6] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | Duct | Dilation | Minimal |
| | | Inflammation | Chronic Active, Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 1,4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 578

TRT#: 1

SEX: Male

DAY ON TEST: 577

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-578

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Intestine Large, Colon
- * Liver
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea
- * Brain
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- * Prostate
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Esophagus
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Forestomach
- * Urinary Bladder
- * Harderian Gland
- * Islets, Pancreatic
- * Mammary Gland
- * Skin
- * Thyroid Gland

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Duodenum
- * Intestine Small, Jejunum
- * Nose

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Necrosis
- * Aorta
 - Mineral
- * Bone
 - Fibrous Osteodystrophy
- * Bone Marrow
 - Hypercellularity
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Epididymis
 - Exfoliated Germ Cell
 - Hypospermia
- * Eye
 - Cornea, Epithelium
 - Hyperplasia
 - Cornea
 - Inflammation
 - Cornea
 - Neovascularization
 - Note: Retina cannot be evaluated due to autolysis.
- * Heart
 - Cardiomyopathy
 - Ventricl Rgt
 - Cardiomyopathy
 - Myocardium
 - Mineral
 - Artery
 - Mineral
- * Kidney
 - Nephropathy
 - Chronicprogr, Marked
 - [Nephropathy TGLs = 2-13]
- * Lung
 - Congestion
 - Hemorrhage

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 578

TRT#: 1

SEX: Male

DAY ON TEST: 577

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-578

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------------------|---------------------------|----------------------|
| | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Congestion TGLs = 6-10] | | |
| | [Hemorrhage TGLs = 7-10] | | |
| Lymph Node | Mediastinal | Erythrophagocytosis | Moderate |
| | [Erythrophagocytosis TGLs = 3-20] | | |
| Mesentery | Artery | Mineral | Marked |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Pancreas | Acinus | Hyperplasia | Mild |
| | Artery | Mineral | Mild |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | Duct | Dilation | Mild |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Moderate |
| | White Pulp | Atrophy | Mild |
| | | Pigment | Moderate |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| | [Degeneration TGLs = 1-16A] | | |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 5,9 = NCL (No Corresponding Lesion)

Animal Note: TGLs 4,8 = NST (No Section Taken)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 580

TRT#: 1

SEX: Male

DAY ON TEST: 624

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-580

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Prostate
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Salivary Glands
- * Thyroid Gland
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Trachea
- * Harderian Gland
- * Intestine Small, Duodenum
- * Mammary Gland
- * Spinal Cord, Lumbar
- * Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex Accessory Adrenal Cortical Nodule
- Hypertrophy Mild
- * Adrenal Medulla Hyperplasia Mild
- Pheochromocytoma Benign
- * Aorta Mineral Moderate
- * Bone Fibrous Osteodystrophy Minimal
- * Epididymis Exfoliated Germ Cell Mild
- * Eye Cornea, Epithelium Hyperplasia Moderate
- Cornea Inflammation Acute, Mild
- * Heart Cardiomyopathy Marked
- Ventricl Rgt Cardiomyopathy Minimal
- Myocardium Mineral Minimal
- Artery Mineral Moderate
- * Kidney Nephropathy Chronicprogr, Marked
- [Nephropathy TGLs = 2,3,4,5-13]
- * Liver Bile Duct Hyperplasia Minimal
- Infiltration Cellular Mixed Cell, Minimal
- * Lung Alveolus Infiltration Cellular Histiocyte, Minimal
- * Lymph Node, Mandibular Lymph Sinus Ectasia Minimal
- Hyperplasia Lymphocyte, Mild
- Proliferation Plasma Cell, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 580

TRT#: 1

SEX: Male

DAY ON TEST: 624

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-580

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|-------------------------|
| Mesentery | Artery | Mineral | Moderate |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Atrophy | Mild |
| | Artery | Inflammation | Chronic Active, Minimal |
| | Artery | Mineral | Minimal |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Acute, Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | [Decreased Secretory Fluid TGLs = 6-16] | | |
| * Skin | | Keratoacanthoma | |
| | [Keratoacanthoma TGLs = 1-20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| * Stomach, Glandular | | Erosion | Minimal |
| | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Minimal |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 581

TRT#: 1

SEX: Male

DAY ON TEST: 657

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-581

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Intestine Large, Rectum
- * Thyroid Gland
- * Bone
- * Intestine Small, Duodenum
- * Trachea
- * Esophagus
- * Intestine Small, Ileum
- Trigeminal Ganglion
- * Intestine Large, Cecum
- * Parathyroid Gland

MISSING

- * Nerve Trigeminal

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
 - * Adrenal Medulla
 - * Bone Marrow
 - * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
 - Note: Hemorrhage secondary to lymphoma.
 - [Hemorrhage TGLs = 1-2]
 - * Epididymis
 - * Eye
 - * Harderian Gland
 - * Heart
 - * Intestine Large, Colon
 - * Islets, Pancreatic
 - [Adenoma TGLs = 16-6]
 - [Hyperplasia TGLs = 16-6]
 - * Kidney
- | | | |
|--|--------------------------|---------------|
| | Vacuolation, Cytoplasmic | Minimal |
| | Pheochromocytoma Benign | Multiple |
| | Pheochromocytoma Complex | |
| | Lymphoma Malignant | |
| | Hemorrhage | Mild |
| | Lymphoma Malignant | |
| | Exfoliated Germ Cell | Mild |
| | Hypospermia | Mild |
| | Lymphoma Malignant | |
| | Neovascularization | Mild |
| | Inflammation | Acute, Marked |
| | Lymphoma Malignant | |
| | Lymphoma Malignant | |
| | Adenoma | |
| | Hyperplasia | Mild |
| | Lymphoma Malignant | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 581

TRT#: 1

SEX: Male

DAY ON TEST: 657

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-581

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | | |
|-----------------------------|--|---------------|-------------------------------|----------------------|
| | | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 4-13] | | | |
| * Liver | | Bile Duct | Hyperplasia | Minimal |
| | | | Lymphoma Malignant | |
| * Lung | | Mediastinal | Lymphoma Malignant | |
| | | Bronchial | Lymphoma Malignant | |
| | | Iliac | Lymphoma Malignant | |
| | | Lumbar | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 15-6] | | | |
| | [Lymphoma Malignant TGLs = 6-21] | | | |
| | [Lymphoma Malignant TGLs = 7-22] | | | |
| * Lymph Node, Mandibular | | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 5,13-9] | | | |
| * Lymph Node, Mesenteric | | | Lymphoma Malignant | |
| * Mammary Gland | | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 8-9] | | | |
| * Nose | | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | | | Lymphoma Malignant | |
| * Peripheral Nerve, Sciatic | | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | | Degeneration | Mild |
| * Pituitary Gland | | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 9-4] | | | |
| * Preputial Gland | | | Lymphoma Malignant | |
| * Prostate | | | Lymphoma Malignant | |
| * Salivary Glands | | | Lymphoma Malignant | |
| * Seminal Vesicle | | | Decreased Secretory Fluid | Marked |
| | | | Lymphoma Malignant | |
| | [Decreased Secretory Fluid TGLs = 10-16] | | | |
| Skeletal Muscle | | | Degeneration | Moderate |
| | | | Lymphoma Malignant | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 581

TRT#: 1

SEX: Male

DAY ON TEST: 657

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-581

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--|--------------------|----------------|
| * Skin | Subcut Tiss | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 11-20] | | |
| * Spinal Cord, Cervical | | Lymphoma Malignant | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Lymphoma Malignant | |
| * Spinal Cord, Thoracic | | Hemorrhage | Focal, Minimal |
| | | Lymphoma Malignant | |
| | Note: Hemorrhage secondary to Lymphoma | | |
| * Spleen | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 12-12] | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Moderate |
| | | Lymphoma Malignant | |
| * Stomach, Glandular | | Lymphoma Malignant | |
| * Testis | Germ Cell | Degeneration | Minimal |
| | [Degeneration TGLs = 14-16A] | | |
| * Thymus | | Lymphoma Malignant | |
| * Urinary Bladder | | Lymphoma Malignant | |

PRIMARY CAUSE OF DEATH - Thymus Lymphoma Malignant

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Animal Note: TGL 2 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 583

TRT#: 1

SEX: Male

DAY ON TEST: 562

DOSE: 0.0W/kg(CDMA)chr

DISP: Accidentally Killed

HISTO: 12-5224-583

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Mammary Gland | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Testis | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

MISSING

- * Preputial Gland

OBSERVATIONS

- | | | | |
|-----------------------------|---|-------------------------------|------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| * Heart | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| | [Nephropathy TGLs = 1-13] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lung | | Foreign Body | |
| | Note: Plant based material in large airways however no inflammatory reaction present. | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Prostate | Epithelium | Hyperplasia | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 583

TRT#: 1

SEX: Male

DAY ON TEST: 562

DOSE: 0.0W/kg(CDMA)chr

DISP: Accidentally Killed

HISTO: 12-5224-583

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Extramedullary Hematopoiesis

Mild

* Thymus

Atrophy

Moderate

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Animal Note: TGLs 2,3,4,5,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 584

TRT#: 1

SEX: Male

DAY ON TEST: 687

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-584

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|---------------------------|-----------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lung | * Lymph Node, Mesenteric | * Parathyroid Gland |
| * Preputial Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

AUTO PRECLUDES DIAG.

- * Intestine Small, Ileum

OBSERVATIONS

- | | | | |
|------------------------------|---------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Hyperplasia | Moderate |
| | | Hypertrophy | Moderate |
| * Brain | | Compression | Mild |
| * Epididymis | | Exfoliated Germ Cell | Mild |
| | | Hypospermia | Mild |
| [Hypospermia TGLs = 2-16A] | | | |
| * Heart | Ventricle Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Moderate |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| [Nephropathy TGLs = 3-13] | | | |
| * Liver | | Angiectasis | Mild |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Moderate |
| * Mammary Gland | Duct | Dilation | Mild |
| [Dilation TGLs = 6-20] | | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Mild |
| [Hyperplasia TGLs = 4-6] | | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 584

TRT#: 1

SEX: Male

DAY ON TEST: 687

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-584

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|-------------------|------------------------------|--------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 5-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Testis | Interstitial Cell | Adenoma | |
| | Germ Cell | Degeneration | Mild |
| | | Inflammation | Chronic Active, Moderate |
| [Degeneration TGLs = 1-16A] | | | |
| * Thymus | | Atrophy | Moderate |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 585

TRT#: 1

SEX: Male

DAY ON TEST: 711

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-585

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Intestine Small, Jejunum
- * Mammary Gland
- * Thyroid Gland
- * Bone Marrow
- * Harderian Gland
- * Islets, Pancreatic
- * Skin
- * Trachea
- * Brain
- * Intestine Small, Duodenum
- * Lung
- * Spinal Cord, Cervical
- Trigeminal Ganglion
- * Esophagus
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Stomach, Forestomach
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex Hyperplasia Mild
- * Aorta Mineral Minimal
- Blood Vessel
- Note: Intimal proliferation of pancreatic artery.
- * Bone Fibrous Osteodystrophy Mild
- * Epididymis Hypospermia Marked
- [Hypospermia TGLs = 8-16A]
- * Heart Cardiomyopathy Mild
- Ventricl Rgt Cardiomyopathy Minimal
- Artery Mineral Minimal
- * Intestine Large, Cecum Edema Moderate
- Erosion Marked
- Inflammation Acute, Marked
- * Intestine Large, Colon Erosion Minimal
- Epithelium Regeneration Marked
- * Intestine Large, Rectum Epithelium Regeneration Moderate
- * Kidney Renal Tubule Cyst
- Nephropathy Chronicprogr, Marked
- [Cyst TGLs = 9,10-13,20]
- [Nephropathy TGLs = 3,4-13]
- * Liver Eosinophilic Focus
- * Lymph Node, Mesenteric Depletion Mild
- Mesentery Artery Inflammation Chronic Active, Mild
- * Nerve Trigeminal Degeneration Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 585

TRT#: 1

SEX: Male

DAY ON TEST: 711

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-585

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|------------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Mild |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| | [Hyperplasia TGLs = 11-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Intermed | Cyst | |
| | Pars Distalis | Hyperplasia | Moderate |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| * Prostate | | Decreased Secretory Fluid | Mild |
| | [Decreased Secretory Fluid TGLs = 6-16] | | |
| * Salivary Glands | Duct, Parotid GI | Dilation | Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | [Decreased Secretory Fluid TGLs = 2-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Stomach, Glandular | | Mineral | Minimal |
| * Testis | Germ Cell | Degeneration | Marked |
| | Artery | Inflammation | Chronic Active, Marked |
| | [Degeneration TGLs = 1-16A] | | |
| * Thymus | | Atrophy | Marked |
| | | Ectopic Parathyroid Gland | |
| | | Ectopic Thyroid | |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 5,7 = NCL (No Corresponding Lesion)

Animal Note: TGL 12 = NST (No Section Taken)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 586

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-586

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Seminal Vesicle
- * Testis
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- Skeletal Muscle
- * Thyroid Gland
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Prostate
- * Stomach, Forestomach
- * Trachea
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Glandular
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Hyperplasia
- * Heart
 - Cardiomyopathy
 - Ventricl Rgt
 - Cardiomyopathy
- * Kidney
 - Lipoma
 - Nephropathy
- [Lipoma TGLs = 4-20]
- [Nephropathy TGLs = 5-13]
- * Liver
 - Mixed Cell Focus
- * Lung
 - Inflammation
- Lymph Node
 - Iliac
 - Hyperplasia
 - Iliac
 - Proliferation
- [Hyperplasia TGLs = 6-20]
- [Proliferation TGLs = 6-20]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Respirat Epith
 - Mineral
- * Pancreas
 - Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 586

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-586

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|------------------------------|----------------------|
| | Acinus | Hyperplasia | Moderate |
| | [Adenoma TGLs = 7-6] | | |
| | [Hyperplasia TGLs = 7-6,14] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 2-16] | | |
| * Skin | | Ulcer | Marked |
| | [Ulcer TGLs = 1-21] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Developmental Malformation | |
| | | Extramedullary Hematopoiesis | Mild |
| | [Developmental Malformation TGLs = 3-12] | | |
| * Thymus | | Atrophy | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 587

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-587

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------------------------------|------------------------------|-------------------------|
| | Renal | Proliferation | Plasma Cell, Mild |
| | [Ectasia TGLs = 5-20] | | |
| | [Erythrophagocytosis TGLs = 7-21] | | |
| | [Infiltration Cellular TGLs = 5-20] | | |
| | [Proliferation TGLs = 6-21] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Moderate |
| | | Proliferation | Plasma Cell, Moderate |
| Mesentery | Artery | Inflammation | Chronic Active, Marked |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Pancreas | | Adenoma | |
| | Acinus | Hyperplasia | Marked |
| | Artery | Inflammation | Chronic Active, Marked |
| | [Adenoma TGLs = 4-14] | | |
| | [Hyperplasia TGLs = 4-6] | | |
| | [Inflammation TGLs = 4-14] | | |
| * Parathyroid Gland | | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Hyperplasia | Lymphocyte, Minimal |
| * Testis | Germ Cell | Degeneration | Marked |
| | Artery | Inflammation | Chronic Active, Marked |
| | [Degeneration TGLs = 1-16A] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 587

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-587

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Minimal

Cyst

* Thyroid Gland

C Cell

Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 588

TRT#: 1

SEX: Male

DAY ON TEST: 584

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-588

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone Marrow | * Esophagus |
| * Harderian Gland | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung | * Lymph Node, Mesenteric |
| * Mammary Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Spinal Cord, Thoracic | * Stomach, Forestomach |
| * Stomach, Glandular | * Thyroid Gland | * Trachea | * Urinary Bladder |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|--------------------------|-------------------------------|-------------------------------|--------------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Mild |
| * Bone | | Fibrous Osteodystrophy | Minimal |
| * Brain | | Necrosis | Moderate |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| * Eye | Cornea, Epithelium | Hyperplasia | Moderate |
| | Cornea | Inflammation | Acute, Moderate |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricle Rgt | Cardiomyopathy | Minimal |
| * Intestine Large, Cecum | Artery | Inflammation | Chronic Active, Mild |
| * Intestine Large, Colon | Artery | Inflammation | Chronic Active, Mild |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 3,4-13] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Mild |
| | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| Mesentery | Artery | Inflammation | Chronic Active, Moderate |
| * Nerve Trigeminal | | Degeneration | Marked |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Atrophy | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 588

TRT#: 1

SEX: Male

DAY ON TEST: 584

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-588

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--------------------------------------|-----------------|--------------------------|
| | Acinus | Hyperplasia | Minimal |
| | Artery | Inflammation | Chronic Active, Marked |
| | | Thrombus | Marked |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Cervical | Artery | Inflammation | Chronic Active, Moderate |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| * Spleen | Nerve | Degeneration | Moderate |
| | | Hemangiosarcoma | |
| | [Hemangiosarcoma TGLs = 1,2-12,20] | | |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Moderate |
| | Artery | Inflammation | Chronic Active, Moderate |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 589

TRT#: 1

SEX: Male

DAY ON TEST: 248

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-589

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|-----------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Liver | * Lymph Node, Mesenteric | * Mammary Gland | * Nerve Trigeminal |
| * Pancreas | * Parathyroid Gland | * Peripheral Nerve, Sciatic | * Peripheral Nerve, Tibial |
| * Pituitary Gland | * Preputial Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Thoracic | * Spleen | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Thyroid Gland | * Trachea | Trigeminal Ganglion |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|--------------------------|--|--------------------------|--------------------------|
| * Brain | Pineal Gland | Vacuolation, Cytoplasmic | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| | [Nephropathy TGLs = 1-13] | | |
| * Lung | | Foreign Body | |
| | | Inflammation | Suppurative, Moderate |
| | Note: Inflammation centered on foreign material within larger airways. | | |
| | [Inflammation TGLs = 3-10] | | |
| * Lymph Node, Mandibular | | Infiltration Cellular | Polymorphnuclr, Moderate |
| * Nose | | Foreign Body | |
| | | Inflammation | Suppurative, Moderate |
| * Preputial GI | | | |
| | Note: One of pair available for evaluation. | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Thymus | | Atrophy | Moderate |
| | [Atrophy TGLs = 2-6] | | |

PRIMARY CAUSE OF DEATH - Lung Inflammation

CONTRIBUTORY CAUSE OF DEATH - Nose Inflammation

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 591

TRT#: 1

SEX: Male

DAY ON TEST: 658

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-591

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Prostate
- * Stomach, Glandular
- * Urinary Bladder
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Testis
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Seminal Vesicle
- * Trachea
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Skin
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Bone
- * Brain
- * Heart
- * Kidney
- [Nephropathy TGLs = 3,4-13]
- * Liver
- * Lung
- [Congestion TGLs = 5-10]
- * Lymph Node, Mandibular
- * Nerve Trigeminal
- * Nose
- * Pancreas
- [Adenoma TGLs = 6-6.1]
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Preputial Gland
- Pineal Gland
- Ventricle Rgt
- Bile Duct
- Olfactory Epi
- Acinus
- Acinus
- Pars Distalis
- Duct
- Hyperplasia
- Hyperplasia
- Fibrous Osteodystrophy
- Vacuolation, Cytoplasmic
- Cardiomyopathy
- Cardiomyopathy
- Nephropathy
- Hyperplasia
- Congestion
- Proliferation
- Degeneration
- Accumulation, Hyaline Droplet
- Adenoma
- Atrophy
- Hyperplasia
- Degeneration
- Degeneration
- Hyperplasia
- Dilation
- Moderate
- Marked
- Minimal
- Minimal
- Minimal
- Minimal
- Chronicprogr, Marked
- Minimal
- Mild
- Plasma Cell, Minimal
- Minimal
- Moderate
- Minimal
- Mild
- Moderate
- Moderate
- Minimal
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 591

TRT#: 1

SEX: Male

DAY ON TEST: 658

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-591

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------------|------------|--------------|----------------------|
| [Inflammation TGLs = 2-16] | | Inflammation | Chronic Active, Mild |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Minimal |
| | Red Pulp | Atrophy | Minimal |
| | | Pigment | Moderate |
| [Atrophy TGLs = 1-12.1] | | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Mild |
| | | Ulcer | Moderate |
| * Thymus | | Atrophy | Moderate |
| * Thyroid Gland | C Cell | Adenoma | |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 7,8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 592

TRT#: 1

SEX: Male

DAY ON TEST: 569

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-592

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Lymph Node, Mesenteric
- * Prostate
- * Skin
- * Trachea
- * Aorta
- * Harderian Gland
- * Mammary Gland
- * Salivary Glands
- * Spinal Cord, Cervical
- Trigeminal Ganglion
- * Bone Marrow
- * Islets, Pancreatic
- * Pituitary Gland
- * Seminal Vesicle
- * Stomach, Forestomach
- * Brain
- * Liver
- * Preputial Gland
- Skeletal Muscle
- * Thyroid Gland

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Duodenum
- * Urinary Bladder
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Intestine Large, Rectum
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
- * Bone
- * Epididymis
- * Heart
- * Kidney
 - [Nephropathy TGLs = 6-13]
- * Lung
 - [Congestion TGLs = 4-10]
 - [Infiltration Cellular TGLs = 5-10]
- * Lymph Node, Mandibular
 - [Hyperplasia TGLs = 1-9]
- * Nerve Trigeminal
- * Nose
- * Pancreas
- * Parathyroid Gland
- Ventricl Rgt
 - Hyperplasia
 - Fibrous Osteodystrophy
 - Exfoliated Germ Cell
 - Cardiomyopathy
 - Cardiomyopathy
 - Nephropathy
- Alveolus
 - Congestion
 - Infiltration Cellular
- Hyperplasia Proliferation
- Degeneration
- Accumulation, Hyaline Droplet
- Hyperplasia
- Inflammation
- Hyperplasia
- Mild
- Minimal
- Minimal
- Mild
- Mild
- Chronicprogr, Marked
- Moderate
- Histiocyte, Minimal
- Lymphocyte, Mild
- Plasma Cell, Mild
- Mild
- Mild
- Marked
- Chronic Active, Mild
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 592

TRT#: 1

SEX: Male

DAY ON TEST: 569

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-592

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--------|--------------|--------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Pigment | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Mild |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 2,3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 593

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-593

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Seminal Vesicle
- * Stomach, Glandular
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Thymus
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Spinal Cord, Cervical
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia Minimal
 - Hypertrophy Mild
 - Vacuolation, Cytoplasmic Minimal
- * Bone Marrow
 - Hypercellularity Mild
- * Brain
 - Note: Olfactory bulb unavailable for evaluation.
- * Eye
 - Retina Atrophy Minimal
 - Cornea Neovascularization Minimal
- * Heart
 - Cardiomyopathy Mild
- * Kidney
 - Ventricl Rgt Cardiomyopathy Minimal
 - Renal Tubule Cyst
 - Nephropathy Chronicprogr, Marked
 - [Cyst TGLs = 8-21,13]
 - [Nephropathy TGLs = 7,9-13]
- * Liver
 - Eosinophilic Focus
 - Mixed Cell Focus
- * Lung
 - Alveolar/Bronchiolar Adenoma
 - Infiltration Cellular Histiocyte, Minimal
 - Alveolus Erythrophagocytosis Moderate
 - Lymph Node Iliac
 - [Erythrophagocytosis TGLs = 11-21]
- * Lymph Node, Mandibular
 - Hyperplasia Lymphocyte, Mild
 - Proliferation Plasma Cell, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 593

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-593

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------------|-------------------------------|--------------------------|
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Adenoma | Moderate |
| | Artery | Hyperplasia | Chronic Active, Minimal |
| | [Adenoma TGLs = 6-6] | | |
| | [Hyperplasia TGLs = 6-6,14] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| | [Dilation TGLs = 3-16] | | |
| * Prostate | | Inflammation | Chronic Active, Minimal |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Mild |
| * Skin | Subcut Tiss | Lipoma | |
| | [Lipoma TGLs = 2-20] | | |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thyroid Gland | C Cell | Adenoma | |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGLs 4,5,10 = NCL (No Corresponding Lesion)

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 594

TRT#: 1

SEX: Male

DAY ON TEST: 510

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-594

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Esophagus
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Seminal Vesicle
- * Spinal Cord, Lumbar
- Trigeminal Ganglion
- * Aorta
- * Eye
- * Liver
- * Pituitary Gland
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Urinary Bladder
- * Bone Marrow
- * Harderian Gland
- * Lymph Node, Mandibular
- * Prostate
- * Skin
- * Thyroid Gland
- * Brain
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Cervical
- * Trachea

MISSING

- * Mammary Gland

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Medulla
- * Bone
- * Epididymis
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Ileum
- * Kidney
- * Lung
- Pheochromocytoma Benign
- Fibrous Osteodystrophy
- Exfoliated Germ Cell
- Cardiomyopathy
- Ventricl Rgt
- Cardiomyopathy
- Erosion
- Artery
- Inflammation
- Inflammation
- Epithelium
- Regeneration
- [Inflammation TGLs = 5-15]
- Epithelium
- Epithelium
- Epithelium
- [Nephropathy TGLs = 1,2,7,8-13]
- Alveolus
- [Infiltration Cellular TGLs = 6-20]
- Minimal
- Moderate
- Mild
- Minimal
- Minimal
- Chronic Active, Mild
- Acute, Mild
- Minimal
- Mild
- Mild
- Mild
- Chronicprogr, Marked
- Histiocyte, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 594

TRT#: 1

SEX: Male

DAY ON TEST: 510

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-594

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|---------------|-------------------------------|----------------------|
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| | | Inflammation | Chronic, Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| Note: Level 3 largely absent. | | | |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| * Spleen | | Pigment | Mild |
| * Stomach, Forestomach | | Ulcer | Minimal |
| * Stomach, Glandular | | Mineral | Mild |
| * Testis | Germ Cell | Degeneration | Mild |
| * Thymus | | Atrophy | Moderate |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 3,4 = NCL (No Corresponding Lesion)

Animal Note: TGL 9 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 595

TRT#: 1

SEX: Male

DAY ON TEST: 616

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-595

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-----------|--------------|--------------------------|
| * Parathyroid Gland | | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Moderate |
| Skeletal Muscle | | Degeneration | Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| [Atrophy TGLs = 2-12] | | | |
| * Stomach, Glandular | | Erosion | Minimal |
| * Testis | Germ Cell | Degeneration | Minimal |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 596

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-596

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone Marrow
- * Brain
- * Esophagus
- * Harderian Gland
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Lung
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Nerve Trigeminal
- * Parathyroid Gland
- * Prostate
- * Salivary Glands
- Skeletal Muscle
- * Stomach, Forestomach
- * Stomach, Glandular
- * Trachea
- Trigeminal Ganglion
- * Urinary Bladder

OBSERVATIONS

- * Bone Fibrous Osteodystrophy Minimal
- * Epididymis Exfoliated Germ Cell Minimal
- * Eye Cornea Fibrosis Minimal
- Cornea, Epithelium Hyperplasia Minimal
- Cornea Inflammation Acute, Minimal
- Cornea Neovascularization Mild
- * Heart Cardiomyopathy Minimal
- * Kidney Nephropathy Chronicprogr, Marked
- [Nephropathy TGLs = 2-13]
- * Liver Eosinophilic Focus
- Mixed Cell Focus
- * Lymph Node, Mandibular Lymph Sinus Ectasia Minimal
- Hyperplasia Lymphocyte, Minimal
- Proliferation Plasma Cell, Minimal
- * Nose Olfactory Epi Accumulation, Hyaline Droplet Mild
- * Pancreas Adenoma
- Acinus Atrophy Minimal
- Acinus Hyperplasia Marked
- Artery Inflammation Chronic Active, Mild
- [Adenoma TGLs = 3-6]
- [Hyperplasia TGLs = 3-6]
- * Peripheral Nerve, Sciatic Degeneration Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 596

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-596

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---|------------------------------|--------------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| * Preputial Gland | Duct | Dilation | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Minimal |
| * Skin | | Cyst Epithelial Inclusion | |
| | [Cyst Epithelial Inclusion TGLs = 1-20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Hyperplasia | Lymphocyte, Minimal |
| | | Pigment | Minimal |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Adenoma | |
| | C Cell | Hyperplasia | Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 597

TRT#: 1

SEX: Male

DAY ON TEST: 688

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-597

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Mammary Gland
- * Spinal Cord, Cervical
- * Bone Marrow
- * Intestine Small, Duodenum
- * Lung
- * Preputial Gland
- * Thyroid Gland
- * Esophagus
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Prostate
- * Trachea
- * Harderian Gland
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Skin
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Medulla
- * Aorta
- * Bone
- * Brain
- * Epididymis
- [Exfoliated Germ Cell TGLs = 4-16A]
- * Eye
- * Heart
- Ventricl Rgt
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Kidney
- [Nephropathy TGLs = 1,2-13]
- * Liver
- Bile Duct
- Artery
- Hepatocyte
- Mesentery
- Artery
- [Inflammation TGLs = 13-21]
- [Necrosis TGLs = 11,14-20,22]
- * Nerve Trigeminal
- * Nose
- * Pancreas
- Hyperplasia
- Mineral
- Fibrous Osteodystrophy
- Vacuolation, Cytoplasmic
- Exfoliated Germ Cell
- Inflammation
- Cardiomyopathy
- Cardiomyopathy
- Ulcer
- Inflammation
- Nephropathy
- Eosinophilic Focus
- Hyperplasia
- Inflammation
- Necrosis
- Inflammation
- Necrosis
- Degeneration
- Accumulation, Hyaline Droplet
- Atrophy
- Minimal
- Mild
- Marked
- Mild
- Moderate
- Moderate
- Acute, Minimal
- Moderate
- Minimal
- Mild
- Chronic Active, Minimal
- Chronicprogr, Marked
- Minimal
- Chronic Active, Marked
- Moderate
- Moderate
- Minimal
- Mild
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 597

TRT#: 1

SEX: Male

DAY ON TEST: 688

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-597

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|---------------------------|--------------------------|
| | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| | Artery | Mineral | Mild |
| | [Hyperplasia TGLs = 10-6] | | |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| | [Hyperplasia TGLs = 9-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Intermed | Cyst | |
| | Pars Distalis | Hyperplasia | Minimal |
| * Salivary Glands | Duct, Parotid GI | Dilation | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Minimal |
| | [Decreased Secretory Fluid TGLs = 5-16] | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Moderate |
| | | Pigment | Mild |
| * Stomach, Forestomach | | Edema | Mild |
| | | Inflammation | Acute, Minimal |
| | | Ulcer | Minimal |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| | [Degeneration TGLs = 3-16A] | | |
| * Thymus | | Atrophy | Marked |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 6,8 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 597

TRT#: 1

SEX: Male

DAY ON TEST: 688

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-597

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL 12 = NST (No Section Taken)

Animal Note: TGL 7 = NCL

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 598

TRT#: 1

SEX: Male

DAY ON TEST: 648

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-598

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Urinary Bladder
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Skin
- * Thyroid Gland
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Prostate
- * Spinal Cord, Cervical
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hyperplasia Minimal
 - Hypertrophy Mild
- * Adrenal Medulla
 - Hyperplasia Mild
- * Aorta
 - Mineral Minimal
- * Bone
 - Fibrous Osteodystrophy Mild
- * Brain
 - Necrosis Minimal
- * Epididymis
 - Exfoliated Germ Cell Minimal
- * Heart
 - Cardiomyopathy Minimal
- * Kidney
 - Nephropathy Chronicprogr, Marked
- [Nephropathy TGLs = 5,7-13]
- * Liver
 - Bile Duct
 - Hyperplasia Minimal
 - Proliferation Plasma Cell, Mild
 - Degeneration Minimal
- * Lymph Node, Mandibular
- * Nerve Trigeminal
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet Mild
 - Cyst
- * Pancreas
 - Acinus
 - Hyperplasia Mild
 - Artery
 - Inflammation Chronic Active, Mild
- [Hyperplasia TGLs = 8-6]
- * Parathyroid Gland
 - Hyperplasia Minimal
- * Peripheral Nerve, Sciatic
 - Degeneration Moderate
- * Peripheral Nerve, Tibial
 - Degeneration Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 598

TRT#: 1

SEX: Male

DAY ON TEST: 648

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-598

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------------|--------|------------------------------|----------------------|
| * Preputial Gland | Duct | Dilation | Minimal |
| | | Inflammation | Chronic Active, Mild |
| [Inflammation TGLs = 2-16] | | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 1,3,4,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 599

TRT#: 1

SEX: Male

DAY ON TEST: 555

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-599

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lung
- * Prostate
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Thyroid Gland
- * Brain
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Mammary Gland
- * Spinal Cord, Cervical
- * Trachea
- * Esophagus
- * Intestine Small, Duodenum
- * Liver
- * Nerve Trigeminal
- * Spinal Cord, Lumbar
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Medulla
- * Aorta
- * Bone
- * Epididymis
- [Hypospermia TGLs = 7-16A]
- * Eye
- Cornea
- Antr Chamber
- Retrobulbar
- Cornea
- * Harderian Gland
- * Heart
- Ventricl Rgt
- * Kidney
- [Nephropathy TGLs = 2,3-13]
- * Lymph Node, Mandibular
- Mesentery
- Artery
- Artery
- * Nose
- * Pancreas
- * Parathyroid Gland
- Hyperplasia
- Mineral
- Fibrous Osteodystrophy
- Exfoliated Germ Cell
- Hypospermia
- Inflammation
- Inflammation
- Schwannoma Malignant
- Ulcer
- Schwannoma Malignant
- Cardiomyopathy
- Cardiomyopathy
- Nephropathy
- Proliferation
- Inflammation
- Mineral
- Neovascularization
- Schwannoma Malignant
- Hyperplasia
- Hyperplasia
- Marked
- Mild
- Mild
- Mild
- Marked
- Acute, Moderate
- Acute, Mild
- Metastatic (Uncertain Primary Site)
- Moderate
- Metastatic (Uncertain Primary Site)
- Moderate
- Minimal
- Chronicprogr, Marked
- Plasma Cell, Minimal
- Chronic Active, Minimal
- Mild
- Moderate
- Metastatic (Uncertain Primary Site)
- Mild
- Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 599

TRT#: 1

SEX: Male

DAY ON TEST: 555

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-599

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|---------------|---------------------------|-------------------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Marked |
| [Dilation TGLs = 1-16] | | | |
| * Salivary Glands | Parotid GI | Atrophy | Moderate |
| | Sublingual GI | Schwannoma Malignant | Metastatic (Uncertain Primary Site) |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| * Skin | | Ulcer | Marked |
| [Ulcer TGLs = 11-20] | | | |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Moderate |
| | Red Pulp | Atrophy | Marked |
| | | Pigment | Moderate |
| * Stomach, Glandular | | Mineral | Mild |
| * Testis | Germ Cell | Degeneration | Marked |
| [Degeneration TGLs = 6-16A] | | | |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 4,5,8,9 = NCL (No Corresponding Lesion)

Animal Note: TGL 10 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 600

TRT#: 1

SEX: Male

DAY ON TEST: 645

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-600

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Eye | * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| Trigeminal Ganglion | * Urinary Bladder | | |

MISSING

- * Mammary Gland

INSUFFICIENT TISSUE

- * Nerve Trigeminal

OBSERVATIONS

- | | | | |
|------------------|---|--------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Minimal |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Brain | Chor Plexus | Mineral | Minimal |
| | Pineal Gland | Vacuolation, Cytoplasmic | Mild |
| * Epididymis | | Exfoliated Germ Cell | Mild |
| | | Mesothelioma Malignant | |
| | [Mesothelioma Malignant TGLs = 4-16A] | | |
| * Esophagus | | Dilation | Marked |
| | | Hyperplasia | Mild |
| | [Dilation TGLs = 2-20] | | |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 5-13] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lung | | Foreign Body | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 600

TRT#: 1

SEX: Male

DAY ON TEST: 645

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-600

ORGAN AND ACCOUNTABLE SITE STATUS

Inflammation Suppurative, Mild

Note: Plant-based material present in airways consistent with aspiration pneumonia.

[Inflammation TGLs = 1-10]

* Lymph Node, Mandibular

Hyperplasia Lymphocyte, Mild
Proliferation Plasma Cell, Mild

* Lymph Node, Mesenteric

Erythrophagocytosis Mild

* Nose

Olfactory Epi

Accumulation, Hyaline Droplet Moderate

Nasopharyn Dct, Respirat Epith

Foreign Body
Hyperplasia Moderate
Inflammation Suppurative, Mild

Note: Hair shafts present.

* Pancreas

Acinus

Adenoma Multiple
Hyperplasia Mild

[Adenoma TGLs = 14-6,14]

[Hyperplasia TGLs = 14-6]

* Parathyroid Gland

Hyperplasia Mild

* Peripheral Nerve, Sciatic

Degeneration Mild

* Peripheral Nerve, Tibial

Degeneration Mild

* Pituitary Gland

Pars Distalis

Hyperplasia Mild

* Preputial Gland

Duct

Dilation Marked
Inflammation Chronic Active, Moderate

[Dilation TGLs = 11-16]

[Inflammation TGLs = 12-16]

* Skin

Squamous Cell Papilloma

[Squamous Cell Papilloma TGLs = 13-20.1]

* Spinal Cord, Cervical

Degeneration Minimal

* Spinal Cord, Lumbar

Nerve

Degeneration Mild

* Spinal Cord, Thoracic

Degeneration Minimal

* Spleen

Red Pulp

Atrophy Minimal
Pigment Mild

[Atrophy TGLs = 9-12]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 600

TRT#: 1

SEX: Male

DAY ON TEST: 645

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-600

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------|---|------------------------|----------|
| * Testis | | Mesothelioma Malignant | |
| | [Mesothelioma Malignant TGLs = 3-16A] | | |
| * Thymus | | Atrophy | Mild |
| * Trachea | Epithelium | Hyperplasia | Moderate |

PRIMARY CAUSE OF DEATH - Esophagus Dilation

CONTRIBUTORY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 6,7,8,10 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 601

TRT#: 1

SEX: Male

DAY ON TEST: 496

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-601

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone Marrow
- * Eye
- * Intestine Small, Duodenum
- * Lung
- * Preputial Gland
- * Spinal Cord, Cervical
- * Trachea
- * Brain
- * Harderian Gland
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Prostate
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- Bulbourethral Gland
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- Skeletal Muscle
- * Spleen
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Skin
- * Stomach, Forestomach

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration Minimal
 - Hyperplasia Mild
- * Adrenal Medulla
 - Hyperplasia Minimal
- * Aorta
 - Mineral Mild
- * Bone
 - Fibrous Osteodystrophy Minimal
- * Epididymis
 - Exfoliated Germ Cell Mild
- * Heart
 - Cardiomyopathy Mild
- * Intestine Large, Cecum
 - Ventricl Rgt
 - Cardiomyopathy Minimal
 - Edema Moderate
 - Artery
 - Inflammation Chronic Active, Mild
 - Inflammation Acute, Moderate
 - Epithelium
 - Regeneration Minimal
 - Nephropathy Chronicprogr, Marked
- * Kidney
 - [Nephropathy TGLs = 1,2-13]
- * Liver
 - Bile Duct
 - Hyperplasia Mild
 - Lymph Node
 - Renal
 - Erythrophagocytosis TGLs = 8,9-20] Moderate
 - * Lymph Node, Mesenteric
 - Erythrophagocytosis Mild
 - [Erythrophagocytosis TGLs = 5-15]
 - Mesentery
 - Artery
 - Inflammation Chronic Active, Minimal
 - Artery
 - Mineral Mild
 - * Nerve Trigeminal
 - Degeneration Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 601

TRT#: 1

SEX: Male

DAY ON TEST: 496

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-601

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|------------------------------|-------------------------------|--------------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | | | |
| Note: Pars distalis available for evaluation. | | | |
| * Salivary Glands | Parotid Gland | Atrophy | Mild |
| * Seminal Vesicle | | Inflammation | Chronic Active, Minimal |
| | [Inflammation TGLs = 3-16] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 4,6,7,10,11 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 602

TRT#: 1

SEX: Male

DAY ON TEST: 600

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-602

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung |
| * Lymph Node, Mesenteric | * Mammary Gland | * Prostate | * Seminal Vesicle |
| * Skin | * Spinal Cord, Cervical | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|-----------------------------|---|-------------------------------|----------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| * Brain | | Necrosis | Mild |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | Ventricle Rgt | Cardiomyopathy | Minimal |
| | [Nephropathy TGLs = 4-13] | Nephropathy | Chronicprogr, Marked |
| * Liver | Bile Duct | Hyperplasia | Mild |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| | Note: Pars distalis available for evaluation. | | |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| Skeletal Muscle | | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 602

TRT#: 1

SEX: Male

DAY ON TEST: 600

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-602

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|------------|--------------------------------------|--|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | Red Pulp | Atrophy | Mild |
| [Atrophy TGLs = 6-12] | | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia Inflammation Ulcer | Marked Chronic Active, Mild Moderate |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Mild |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 1,2,3,5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 604

TRT#: 1

SEX: Male

DAY ON TEST: 705

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-604

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone Marrow
- * Intestine Small, Ileum
- * Mammary Gland
- * Spinal Cord, Thoracic
- * Esophagus
- * Intestine Small, Jejunum
- * Prostate
- * Thyroid Gland
- * Harderian Gland
- * Islets, Pancreatic
- * Skin
- * Trachea
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Spinal Cord, Cervical
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - * Adrenal Medulla
 - * Aorta
 - * Bone
 - * Brain
 - * Epididymis
 - * Eye
 - * Heart
 - * Intestine Large, Cecum
 - * Intestine Large, Colon
 - * Intestine Large, Rectum
 - * Kidney
- [Hypospermia TGLs = 2-16A]
- [Cyst TGLs = 11-20]
- [Nephropathy TGLs = 8,9-13]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 604

TRT#: 1

SEX: Male

DAY ON TEST: 705

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-604

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|----------------------|
| * Liver | Hepatocyte | Necrosis | Minimal |
| | Hepatocyte | Vacuolation, Cytoplasmic | Mild |
| | [Vacuolation, Cytoplasmic TGLs = 10-12] | | |
| * Lung | Perivascular | Inflammation | Chronic Active, Mild |
| Lymph Node | Renal | Erythrophagocytosis | Mild |
| | [Erythrophagocytosis TGLs = 12,13-20] | | |
| * Lymph Node, Mesenteric | Lymphocyte | Depletion | Moderate |
| Mesentery | Artery | Mineral | Moderate |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Minimal |
| | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 6-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 16,17-16] | | |
| * Salivary Glands | Parotid GI | Atrophy | Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | [Decreased Secretory Fluid TGLs = 4-16] | | |
| Skeletal Muscle | | Degeneration | Mild |
| | | Mineral | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Moderate |
| | | Extramedullary Hematopoiesis | Moderate |
| | [Atrophy TGLs = 18-12] | | |
| * Stomach, Forestomach | | Edema | Mild |
| | Epithelium | Hyperplasia | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 604

TRT#: 1

SEX: Male

DAY ON TEST: 705

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-604

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------|-------------------------------|--------------|------------------------|
| * Stomach, Glandular | | Mineral | Minimal |
| * Testis | Germ Cell | Degeneration | Moderate |
| | Artery | Inflammation | Chronic Active, Marked |
| | [Degeneration TGLs = 1-16A] | | |
| * Thymus | | Atrophy | Marked |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 3,5,7,14 = NCL (No Corresponding Lesion)

Animal Note: TGL 15 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 605

TRT#: 1

SEX: Male

DAY ON TEST: 629

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-605

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone Marrow
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Seminal Vesicle
- * Stomach, Forestomach
- * Brain
- * Intestine Small, Duodenum
- * Mammary Gland
- Skeletal Muscle
- * Thyroid Gland
- * Esophagus
- * Intestine Small, Ileum
- * Prostate
- * Skin
- * Trachea
- * Harderian Gland
- * Intestine Small, Jejunum
- * Salivary Glands
- * Spinal Cord, Cervical
- * Urinary Bladder

MISSING

- * Parathyroid Gland
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Vacuolation, Cytoplasmic
- * Adrenal Medulla
 - Hyperplasia
- * Aorta
 - Mineral
- * Bone
 - Fibrous Osteodystrophy
- * Epididymis
 - Exfoliated Germ Cell
- * Eye
 - Cornea, Epithelium
 - Hyperplasia
 - Cornea
 - Inflammation
 - Cornea
 - Ulcer
- [Inflammation TGLs = 13-5]
- * Heart
 - Cardiomyopathy
 - Ventricl Rgt
 - Cardiomyopathy
 - Artery
 - Mineral
- * Intestine Large, Cecum
 - Edema
 - Artery
 - Inflammation
- * Intestine Large, Colon
 - Artery
 - Inflammation
- * Kidney
 - Renal Tubule
 - Cyst
 - Nephropathy
- [Cyst TGLs = 1,2,11-13,20,21]
- [Nephropathy TGLs = 9,10-13]
- * Liver
 - Bile Duct
 - Hyperplasia
 - Mixed Cell Focus

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 605

TRT#: 1

SEX: Male

DAY ON TEST: 629

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-605

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|--------------------------|
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| Lymph Node | Renal | Erythrophagocytosis | Moderate |
| | [Erythrophagocytosis TGLs = 7,8-20] | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Mild |
| | | Proliferation | Plasma Cell, Mild |
| | [Ectasia TGLs = 3-9] | | |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Mild |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| | Artery | Mineral | Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| | Note: Approximately one-half of Level 3 available for evaluation. | | |
| * Pancreas | Acinus | Atrophy | Minimal |
| | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Marked |
| | [Hyperplasia TGLs = 6-6] | | |
| | [Inflammation TGLs = 6-6] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Preputial Gland | Duct | Dilation | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 605

TRT#: 1

SEX: Male

DAY ON TEST: 629

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-605

ORGAN AND ACCOUNTABLE SITE STATUS

Cyst

Ectopic Parathyroid Gland

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 4,5 = NCL (No Corresponding Lesion)

Animal Note: TGL 12 = NCL

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1343

TRT#: 3

SEX: Male

DAY ON TEST: 719

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1343

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|---------------------------|----------------------|
| * Pancreas | Olfactory Epi | Metaplasia | Respiratory, Minimal |
| | Acinus | Adenoma | Minimal |
| | Artery | Hyperplasia | Chronic Active, Mild |
| | [Adenoma TGLs = 10-6] | | |
| | [Hyperplasia TGLs = 10-6,14] | | |
| * Parathyroid Gland | | Inflammation | |
| | [Hyperplasia TGLs = 8-8] | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Mild |
| * Salivary Glands | Duct, Parotid GI | Dilation | Minimal |
| | Parotid GI | Inflammation | Acute, Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| | [Decreased Secretory Fluid TGLs = 4-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| | | Hemangioma | |
| | [Hemangioma TGLs = 11-11] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Marked |
| | Artery | Inflammation | Chronic Active, Mild |
| | [Degeneration TGLs = 2-16A] | | |
| * Thymus | | Atrophy | Marked |
| | | Cyst | |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1343

TRT#: 3

SEX: Male

DAY ON TEST: 719

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1343

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1344

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1344

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lung |
| * Lymph Node, Mesenteric | * Mammary Gland | * Pancreas | * Parathyroid Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | Skeletal Muscle |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Testis |
| * Thymus | * Thyroid Gland | * Trachea | Trigeminal Ganglion |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|---|---------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Carcinoma | |
| [Carcinoma TGLs = 3-7] | | | |
| * Heart | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Hyperplasia | Moderate |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Liver | | Clear Cell Focus | |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| Note: Pars distalis available for evaluation. | | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| [Dilation TGLs = 1,2-16] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1344

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1344

ORGAN AND ACCOUNTABLE SITE STATUS

* Spinal Cord, Thoracic

* Spleen

Degeneration

Degeneration

Extramedullary Hematopoiesis

Minimal

Minimal

Minimal

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1345

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1345

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Prostate
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Testis
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Skin
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Epididymis
 - Exfoliated Germ Cell
- * Eye
 - Cornea, Epithelium
 - Cornea
- * Heart
 - Cardiomyopathy
 - Ventricl Rgt
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- [Nephropathy TGLs = 2-13]
- * Liver
 - Bile Duct
- * Lung
 - Alveolus
- * Lymph Node, Mandibular
 - Inflammation
- * Mammary Gland
 - Cardiomyopathy
 - Nephropathy
- [Fibroadenoma TGLs = 1-20]
- * Nerve Trigeminal
 - Hyperplasia
 - Mixed Cell Focus
 - Infiltration Cellular
- * Nose
 - Hyperplasia
 - Proliferation
- * Pancreas
 - Fibroadenoma
 - Degeneration
 - Accumulation, Hyaline Droplet
 - Adenoma
 - Hyperplasia
 - Inflammation

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1345

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1345

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLs = 3-6]

[Hyperplasia TGLs = 3-6,14]

| | | | |
|-----------------------------|---------------|------------------------------|-------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Hyperplasia | Minimal |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Cyst | |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1346

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1346

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Mammary Gland
- Skeletal Muscle
- * Urinary Bladder
- * Aorta
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Stomach, Forestomach
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Glandular
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Trachea

INSUFFICIENT TISSUE

- * Thymus

OBSERVATIONS

- * Adrenal Cortex
 - * Heart
 - * Islets, Pancreatic
 - [Adenoma TGLs = 3-6]
 - * Kidney
 - * Liver
 - * Lung
 - [Infiltration Cellular TGLs = 5-10,20]
 - * Lymph Node, Mandibular
 - * Nerve Trigeminal
 - * Nose
 - * Pancreas
 - [Hyperplasia TGLs = 3-14]
 - * Peripheral Nerve, Sciatic
 - * Peripheral Nerve, Tibial
 - * Pituitary Gland
 - [Adenoma TGLs = 4-4]
- | | | | |
|--|---------------|-------------------------------|----------------------|
| | | | |
| | Ventricl Rgt | Hypertrophy | Mild |
| | | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Mild |
| | | Adenoma | |
| | | Nephropathy | Chronicprogr, Mild |
| | | Mixed Cell Focus | |
| | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| | | Degeneration | Mild |
| | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | | Inflammation | Suppurative, Minimal |
| | Acinus | Hyperplasia | Mild |
| | | Degeneration | Moderate |
| | | Degeneration | Moderate |
| | Pars Distalis | Adenoma | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1346

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1346

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------|---|----------------------------------|
| * Preputial Gland | Duct | Dilation Inflammation | Moderate Chronic Active, Mild |
| [Dilation TGLs = 2-16] | | | |
| * Prostate | | Inflammation | Acute, Minimal |
| * Skin | Epidermis | Hyperplasia | Marked |
| [Hyperplasia TGLs = 1-20] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis Pigment | Minimal Minimal |
| * Testis | Interstit Cell | Hyperplasia | Moderate |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1348

TRT#: 3

SEX: Male

DAY ON TEST: 614

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1348

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Epididymis | * Esophagus | * Eye | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Lung | * Lymph Node, Mesenteric | * Mammary Gland |
| * Parathyroid Gland | * Pituitary Gland | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Stomach, Forestomach | * Stomach, Glandular | * Testis |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|---|---------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Minimal |
| * Bone Marrow | | Hypercellularity | Moderate |
| * Brain | | | |
| Note: Atrophy affecting optic chiasm. | | | |
| * Harderian Gland | | Inflammation | Chronic Active, Minimal |
| * Heart | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Hyperplasia | Mild |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | Duct | Dilation | Mild |
| Note: One of pair available for evaluation. | | | |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| * Skin | Subcut Tiss | Fibroma | |

[Fibroma TGLs = 1-20]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1348

TRT#: 3

SEX: Male

DAY ON TEST: 614

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1348

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|----------|
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Thymus | | Atrophy | Moderate |
| * Thyroid Gland | C Cell | Adenoma | |

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Fibroma

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1351

TRT#: 3

SEX: Male

DAY ON TEST: 710

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1351

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Harderian Gland
- * Lymph Node, Mandibular
- * Skin
- * Trachea
- * Aorta
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Brain
- * Intestine Small, Duodenum
- * Prostate
- * Spinal Cord, Thoracic
- * Esophagus
- * Lung
- * Salivary Glands
- * Stomach, Forestomach

MISSING

Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Large, Colon
- * Urinary Bladder
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hyperplasia
 - Cystic, Mild
- * Bone
 - Fibrous Osteodystrophy
 - Mild
- * Bone Marrow
 - Hemorrhage
 - Minimal
- * Epididymis
 - Hypospermia
 - Marked
- [Hypospermia TGLs = 11-16A]
- * Eye
 - Cornea
 - Inflammation
 - Acute, Minimal
 - Antr Chamber
 - Inflammation
 - Acute, Mild
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Moderate
 - Cardiomyopathy
 - Minimal
 - Hemorrhage
 - Mild
- * Intestine Large, Cecum
 - [Hemorrhage TGLs = 7-15]
- * Islets, Pancreatic
 - Hyperplasia
 - Mild
- * Kidney
 - Renal Tubule
 - Cyst
 - Nephropathy
 - Chronicprogr, Marked
- [Cyst TGLs = 16-13]
- [Nephropathy TGLs = 8,15-13]
- * Liver
 - Bile Duct
 - Cyst

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1351

TRT#: 3

SEX: Male

DAY ON TEST: 710

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1351

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|------------------------|
| | Hepatocyte | Vacuolation, Cytoplasmic | Mild |
| * Mammary Gland | | Atrophy | Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Moderate |
| | Artery | Inflammation | Chronic Active, Mild |
| | [Hyperplasia TGLs = 6-6] | | |
| * Parathyroid Gland | | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 17-8] | | |
| Penis | | Prolapse | Marked |
| | [Prolapse TGLs = 3-20] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Cyst | |
| * Preputial Gland | | Atrophy | Marked |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | [Decreased Secretory Fluid TGLs = 9-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | White Pulp | Atrophy | Moderate |
| | | Pigment | Mild |
| | [Atrophy TGLs = 14-12] | | |
| * Testis | Germ Cell | Degeneration | Marked |
| | Artery | Inflammation | Chronic Active, Marked |
| | [Degeneration TGLs = 10-16A] | | |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Adenoma | |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 4,5,12,13 = NCL (No Corresponding Lesion)

Animal Note: TGLs 1,2 = NST (No Section Taken)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1352

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1352

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Prostate
- * Skin
- * Thyroid Gland
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Spinal Cord, Cervical
- * Trachea
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Lung
- * Seminal Vesicle
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Skeletal Muscle
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Brain
 - Hypothalamus
 - Cyst
- * Harderian Gland
 - Infiltration Cellular
- * Heart
 - Cardiomyopathy
 - Myocardium
 - Schwannoma Malignant
- * Kidney
 - Nephropathy
- * Liver
 - Bile Duct
 - Hyperplasia
 - Mixed Cell Focus
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Hyperplasia
 - Proliferation
- * Lymph Node, Mesenteric
 - Hyperplasia
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Pancreas
 - Acinus
 - Atrophy
 - Acinus
 - Hyperplasia
- * Parathyroid Gland
 - Hyperplasia
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration
- * Pituitary Gland
 - Pars Nervosa
 - Cyst

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1352

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1352

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|----------------|------------------------------|-------------------------|
| | Pars Distalis | Hyperplasia | Moderate |
| | Pars Intermed | Hyperplasia | Moderate |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Interstit Cell | Hyperplasia | Mild |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Ectopic Parathyroid Gland | |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1353

TRT#: 3

SEX: Male

DAY ON TEST: 637

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1353

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Esophagus
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Lymph Node, Mesenteric
- * Preputial Gland
- Trigeminal Ganglion
- * Eye
- * Intestine Large, Rectum
- * Liver
- * Mammary Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Nerve Trigeminal
- * Stomach, Forestomach
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Pituitary Gland
- * Trachea

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
 - Hypertrophy
 - Necrosis
 - Vacuolation, Cytoplasmic
- * Adrenal Medulla
 - Hyperplasia
- * Aorta
 - Dilation
 - Mineral
- [Dilation TGLs = 6-11]
- [Mineral TGLs = 8-11]
- * Bone
 - Fibrous Osteodystrophy
- * Bone Marrow
 - Hypercellularity
- * Brain
 - Pineal Gland
 - Vacuolation, Cytoplasmic
- * Epididymis
 - Hypospermia
- [Hypospermia TGLs = 14-16A]
- * Heart
 - Cardiomyopathy
 - Artery
 - Mineral
- * Kidney
 - Renal Tubule
 - Cyst
 - Nephropathy
- [Cyst TGLs = 1,3-20]
- [Nephropathy TGLs = 4-13]
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Pancreas
 - Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1353

TRT#: 3

SEX: Male

DAY ON TEST: 637

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1353

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------|---------------------------|----------------------|
| | Acinus | Atrophy | Mild |
| | Acinus | Hyperplasia | Moderate |
| * Parathyroid Gland | | Hyperplasia | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Prostate | | Inflammation | Acute, Mild |
| * Salivary Glands | Parotid GI | Atrophy | Marked |
| | Submandibul GI | Atrophy | Marked |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | | Inflammation | Acute, Mild |
| [Decreased Secretory Fluid | TGLs = 15-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | | Cyst Epithelial Inclusion | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| [Atrophy | TGLs = 2-12] | | |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Marked |
| | Artery | Inflammation | Chronic Active, Mild |
| [Degeneration | TGLs = 5-16A] | | |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Adenoma | |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 7,9,11,12,13 = NCL (No Corresponding Lesion)

Animal Note: TGL 10 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1354

TRT#: 3

SEX: Male

DAY ON TEST: 591

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1354

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Aorta | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Mammary Gland | * Pituitary Gland | * Preputial Gland |
| * Prostate | * Salivary Glands | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular | * Testis |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|---|--------------|--------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| Blood Vessel | Pulmn Artery | Necrosis | Minimal |
| * Bone | | Fibrous Osteodystrophy | Minimal |
| * Bone Marrow | | Hypercellularity | Minimal |
| * Brain | Meninges | Hyperplasia | Gran Cell, Mild |
| | | Necrosis | Minimal |
| * Heart | Myocardium | Necrosis | Moderate |
| | Atrium | Thrombus | Marked |
| Note: Massive numbers of bacterial colonies within myocardium, valves and within aggregated material within lumens. | | | |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| Note: Bacterial colonies present within a small number of glomeruli. [Nephropathy TGLs = 6-13] | | | |
| * Liver | Hepatocyte | Necrosis | Mild |
| * Lung | | Hemorrhage | Minimal |
| Lymph Node | Mediastinal | Inflammation | Acute, Mild |
| Note: Bacterial colonies present. | | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Necrosis | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1354

TRT#: 3

SEX: Male

DAY ON TEST: 591

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1354

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|-------------------------------|--------------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Marked |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Pigment | Mild |
| | | Thrombus | Moderate |
| [Thrombus TGLs = 4-12] | | | |
| * Thymus | | Atrophy | Moderate |

PRIMARY CAUSE OF DEATH - Heart Myocardium Necrosis

Animal Note: TGLs 1,2,5 = NCL (No Corresponding Lesion)

Animal Note: TGLs 3,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1355

TRT#: 3

SEX: Male

DAY ON TEST: 573

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1355

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Esophagus | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Liver | * Lung | * Lymph Node, Mesenteric | * Mammary Gland |
| * Parathyroid Gland | * Prostate | * Seminal Vesicle | * Skin |
| * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

AUTO PRECLUDES DIAG.

- * Preputial Gland

OBSERVATIONS

- | | | | |
|-----------------------------|-----------------------------|-------------------------------|-------------------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Necrosis | Minimal |
| * Brain | | Schwannoma Malignant | Metastatic (Uncertain Primary Site) |
| * Epididymis | | Exfoliated Germ Cell | Mild |
| * Eye | Cornea | Inflammation | Acute, Minimal |
| | | Schwannoma Malignant | Metastatic (Uncertain Primary Site) |
| * Harderian Gland | | Schwannoma Malignant | Metastatic (Uncertain Primary Site) |
| * Heart | | Cardiomyopathy | Minimal |
| | Artery | Degeneration | Mild |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 1-13] | | |
| * Lymph Node, Mandibular | | Infiltration Cellular | Histiocyte, Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | | Schwannoma Malignant | Metastatic (Uncertain Primary Site) |
| Oral Mucosa | | Ulcer | Moderate |
| * Pancreas | Acinus | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | | Schwannoma Malignant | Metastatic (Uncertain Primary Site) |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1355

TRT#: 3

SEX: Male

DAY ON TEST: 573

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1355

ORGAN AND ACCOUNTABLE SITE STATUS

[Schwannoma Malignant TGLs = 2-4]

| | | | |
|------------------------|------------|--------------|-------------------------|
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| | | Ulcer | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Minimal |
| * Thymus | | Atrophy | Moderate |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

CONTRIBUTORY CAUSE OF DEATH - Pituitary Gland Schwannoma Malignant Uncertain Primary Site

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1356

TRT#: 3

SEX: Male

DAY ON TEST: 550

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1356

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung |
| * Lymph Node, Mesenteric | * Nerve Trigeminal | * Pancreas | * Parathyroid Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|-----------------------------|------------------------------|-------------------------------|---------------------|
| * Adrenal Cortex | | Hyperplasia | Moderate |
| * Bone Marrow | | Hypercellularity | Marked |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | | Extramedullary Hematopoiesis | Minimal |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 1-20] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Cyst | |
| * Preputial Gland | Duct | Dilation | Mild |
| | [Dilation TGLs = 2-16] | | |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Thymus | | Atrophy | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1356

TRT#: 3

SEX: Male

DAY ON TEST: 550

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1356

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Adenoma

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1357

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1357

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Nose
- * Seminal Vesicle
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Lung
- * Pancreas
- * Skeletal Muscle
- * Thyroid Gland
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Prostate
- * Skin
- * Trachea
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Hyperplasia
 - Pheochromocytoma Malignant
- [Pheochromocytoma Malignant TGLs = 2-7]
- * Epididymis
 - Exfoliated Germ Cell
- * Harderian Gland
 - Inflammation
- * Heart
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- [Nephropathy TGLs = 3-13]
- * Liver
 - Mixed Cell Focus
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Hyperplasia
 - Proliferation
 - Degeneration
 - Hyperplasia
 - Degeneration
 - Degeneration
- * Nerve Trigeminal
 - Degeneration
- * Parathyroid Gland
 - Hyperplasia
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration
- * Pituitary Gland
 - Pars Distalis
 - Cyst
- * Preputial Gland
 - Duct
 - Dilation
 - Inflammation

- Mild
- Minimal
- Mild
-
- Minimal
- Granulomatous, Minimal
- Mild
- Chronicprogr, Marked
-
- Minimal
- Lymphocyte, Mild
- Plasma Cell, Minimal
- Mild
- Minimal
- Moderate
- Moderate
-
- Mild
- Chronic Active, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1357

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1357

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|------------------------|------------------------------|----------|
| * Spinal Cord, Cervical | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | Germ Cell | Degeneration | Minimal |
| | | Edema | Marked |
| | [Edema TGLs = 1-16A] | | |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1358

TRT#: 3

SEX: Male

DAY ON TEST: 634

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1358

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--|------------------------------|---------|
| * Skin | Subcut Tiss | Fibroma | |
| | Subcut Tiss | Neural Crest Tumor | |
| | [Fibroma TGLs = 2-20] | | |
| | [Neural Crest Tumor TGLs = 3,4-21] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | [Extramedullary Hematopoiesis TGLs = 7-12] | | |
| * Thymus | | Atrophy | Mild |

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Neural Crest Tumor

CONTRIBUTORY CAUSE OF DEATH - Skin Subcut Tiss Fibroma

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1359

TRT#: 3

SEX: Male

DAY ON TEST: 694

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1359

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|--|-------------------------------|
| * Nerve Trigeminal | Artery | Mineral Degeneration | Mild Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet Inflammation | Moderate Suppurative, Minimal |
| * Pancreas | Artery | Inflammation | Chronic Active, Minimal |
| * Parathyroid Gland | | Hyperplasia | Marked |
| [Hyperplasia TGLs = 10-8] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| [Hyperplasia TGLs = 17-4] | | | |
| * Preputial Gland | Duct | Dilation Inflammation | Mild Chronic Active, Moderate |
| [Dilation TGLs = 1-16] | | | |
| [Inflammation TGLs = 2-16] | | | |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| [Decreased Secretory Fluid TGLs = 6-16] | | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Moderate |
| | Red Pulp | Atrophy | Moderate |
| | | Pigment | Moderate |
| [Atrophy TGLs = 12-12] | | | |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| [Degeneration TGLs = 5-16A] | | | |
| * Thymus | | Atrophy | Marked |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1359

TRT#: 3

SEX: Male

DAY ON TEST: 694

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1359

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGLs 8,11 = NCL (No Corresponding Lesion)

Animal Note: TGL 16 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1360

TRT#: 3

SEX: Male

DAY ON TEST: 615

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1360

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Intestine Small, Duodenum
- * Mammary Gland
- * Skin
- * Thyroid Gland
- * Brain
- * Intestine Small, Ileum
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea
- * Esophagus
- * Islets, Pancreatic
- * Prostate
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Harderian Gland
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Medulla Hyperplasia Moderate
- * Aorta Mineral Mild
- * Bone Fibrous Osteodystrophy Minimal
- * Bone Marrow Hypercellularity Minimal
- * Epididymis Exfoliated Germ Cell Moderate
- * Eye Cornea, Epithelium Hyperplasia Moderate
- Cornea Inflammation Acute, Moderate
- * Heart Cardiomyopathy Moderate
- Ventricl Rgt Cardiomyopathy Mild
- Myocardium Mineral Minimal
- Artery Mineral Mild
- * Intestine Large, Cecum Erosion Moderate
- Inflammation Acute, Mild
- Epithelium Regeneration Mild
- [Erosion TGLs = 11-15]
- * Intestine Large, Colon Erosion Mild
- [Erosion TGLs = 15-15]
- * Intestine Large, Rectum Inflammation Chronic Active, Minimal
- * Kidney Nephropathy Chronicprogr, Marked
- [Nephropathy TGLs = 3,4-13]
- * Liver Bile Duct Hyperplasia Minimal
- Mixed Cell Focus

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1360

TRT#: 3

SEX: Male

DAY ON TEST: 615

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1360

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|------------------------|
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 9-10] | | |
| * Lymph Node, Mandibular | | Erythrophagocytosis | Mild |
| | | Proliferation | Plasma Cell, Mild |
| | [Erythrophagocytosis TGLs = 2-20] | | |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| | Artery | Mineral | Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| | | Inflammation | Chronic Active, Marked |
| | [Inflammation TGLs = 12-6] | | |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| | [Inflammation TGLs = 1-16] | | |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| | [Decreased Secretory Fluid TGLs = 6-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Pigment | Moderate |
| * Stomach, Glandular | | Mineral | Mild |
| * Testis | Germ Cell | Degeneration | Moderate |
| * Thymus | | Atrophy | Moderate |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 5,7,8,10,13,14 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1361

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1361

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Cecum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Liver
- * Prostate
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Mammary Gland
- * Salivary Glands
- * Testis
- * Brain
- * Harderian Gland
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Skin
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Bone Marrow
 - Hypercellularity
- * Heart
 - Cardiomyopathy
 - Ventricl Rgt
 - Cardiomyopathy
 - Dilation
- * Intestine Small, Duodenum
 - [Dilation TGLs = 8-14]
- * Intestine Small, Jejunum
 - [Adenocarcinoma TGLs = 6-14]
- * Kidney
 - Renal Tubule
 - Cyst
 - Nephropathy
- * Lung
 - [Cyst TGLs = 2-20]
 - [Nephropathy TGLs = 3-13]
 - Alveolus
 - Infiltration Cellular
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - [Hyperplasia TGLs = 5-9]
- * Lymph Node, Mesenteric
 - Lymph Sinus
 - Ectasia
 - Hyperplasia
 - Proliferation

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1361

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1361

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|----------------|-------------------------------|-------------------------|
| [Hyperplasia TGLs = 12-15] | | | |
| Mesentery | | Fibrosis | Mild |
| | Vein | Inflammation | Chronic Active, Minimal |
| | | Neovascularization | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | Respirat Epith | Hyperplasia | Mild |
| | | Inflammation | Suppurative, Minimal |
| * Pancreas | Acinus | Hyperplasia | Mild |
| [Hyperplasia TGLs = 7-6,14] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| [Decreased Secretory Fluid TGLs = 1-16] | | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Moderate |
| * Thymus | | Atrophy | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGLs 9,10 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1362

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1362

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Lung | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nerve Trigeminal | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|--------------------------|-------------------------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Eye | Cornea | Fibrosis | Minimal |
| | Cornea, Epithelium | Hyperplasia | Moderate |
| | Cornea | Inflammation | Acute, Minimal |
| | Cornea | Neovascularization | Minimal |
| * Heart | | Cardiomyopathy | Mild |
| * Islets, Pancreatic | | Hyperplasia | Mild |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 3,4-13] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Mild |
| | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | | Adenoma | Multiple |
| | Acinus | Hyperplasia | Moderate |
| | [Adenoma TGLs = 2-6] | | |
| | [Hyperplasia TGLs = 2-6] | | |
| * Parathyroid Gland | | Hyperplasia | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1362

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1362

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|------------------------------|-------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| * Skin | | Cyst Epithelial Inclusion | |
| | [Cyst Epithelial Inclusion TGLs = 1-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | Follicle | Cyst | |

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1364

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1364

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Glandular
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Skeletal Muscle
- * Testis
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nose
- * Spinal Cord, Cervical
- * Trachea
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Stomach, Forestomach

OBSERVATIONS

- * Adrenal Cortex
 - [Adenoma TGLs = 10-7, 11-7]
 - [Hypertrophy TGLs = 10-7]
 - * Adrenal Medulla
 - [Hyperplasia TGLs = 11-7]
 - * Bone Marrow
 - * Brain
 - [Compression TGLs = 16-2]
 - * Epididymis
 - * Heart
 - * Islets, Pancreatic
 - * Kidney
 - [Nephropathy TGLs = 12-13]
 - * Liver
 - * Lung
 - * Mammary Gland
 - [Dilation TGLs = 1-9]
 - * Pancreas
- | | | |
|--|----------------------|------------------------|
| | Adenoma | |
| | Hypertrophy | Moderate |
| | Hyperplasia | Marked |
| | Hypercellularity | Moderate |
| | Compression | Minimal |
| | Mineral | Minimal |
| | Exfoliated Germ Cell | Minimal |
| | Schwannoma Malignant | |
| | Hyperplasia | Minimal |
| | Hyperplasia | Moderate |
| | Inflammation | Suppurative, Minimal |
| | Nephropathy | Chronicprogr, Marked |
| | Bile Duct | |
| | Hyperplasia | Minimal |
| | Foreign Body | |
| | Inflammation | Granulomatous, Minimal |
| | Dilation | Minimal |
| | Adenoma | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1364

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1364

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|------------------------------|--------------------------|
| | Acinus | Hyperplasia | Marked |
| | [Adenoma TGLs = 14-6] | | |
| | [Hyperplasia TGLs = 14-6] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 17-4] | | |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Minimal |
| | [Dilation TGLs = 4-16] | | |
| * Prostate | | Inflammation | Chronic Active, Moderate |
| | [Inflammation TGLs = 8-16] | | |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | | Inflammation | Chronic Active, Moderate |
| | [Decreased Secretory Fluid TGLs = 6-16] | | |
| * Skin | Subcut Tiss | Fibroma | |
| | Subcut Tiss | Lipoma | |
| | [Fibroma TGLs = 2-21] | | |
| | [Lipoma TGLs = 3-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Adenoma | |
| | C Cell | Hyperplasia | Minimal |
| | [Adenoma TGLs = 15-8] | | |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Urinary Bladder | Urothelium | Hyperplasia | Marked |

Animal Note: TGL 7 = NST (No Section Taken)

Animal Note: TGLs 5,9,13 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1365

TRT#: 3

SEX: Male

DAY ON TEST: 693

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1365

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Seminal Vesicle
- * Stomach, Forestomach
- * Bone
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea
- * Bone Marrow
- * Parathyroid Gland
- * Skin
- Trigeminal Ganglion
- * Brain
- * Salivary Glands
- * Spinal Cord, Cervical

MISSING

- * Islets, Pancreatic
- * Mammary Gland

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Duodenum
- * Stomach, Glandular
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Thyroid Gland
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Urinary Bladder
- * Intestine Large, Rectum
- * Pancreas

OBSERVATIONS

- * Adrenal Cortex
 - * Adrenal Medulla
 - * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
 - * Epididymis
 - Note: One epididymis is normal.
 - * Harderian Gland
 - * Heart
 - Ventricl Rgt
 - * Kidney
 - * Liver
 - * Lung
 - [Congestion TGLs = 3-10.1]
 - * Lymph Node, Mandibular
 - Lymph Sinus
- Vacuolation, Cytoplasmic
 Hyperplasia
 Granuloma Sperm
 Hypospermia
 Inflammation
 Cardiomyopathy
 Cardiomyopathy
 Nephropathy
 Angiectasis
 Mixed Cell Focus
 Congestion
 Ectasia
 Hyperplasia
 Proliferation
- Minimal
 Mild
 Marked
 Marked
 Granulomatous, Minimal
 Mild
 Minimal
 Chronicprogr, Mild
 Moderate
 Mild
 Minimal
 Lymphocyte, Minimal
 Plasma Cell, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1365

TRT#: 3

SEX: Male

DAY ON TEST: 693

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1365

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|---------------|-------------------------------|--------------------------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Preputial Gland | | Inflammation | Chronic Active, Moderate |
| * Prostate | | Inflammation | Acute, Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Testis | Germ Cell | Degeneration | Marked |
| Note: One testis normal. | | | |
| [Degeneration TGLs = 2-16A] | | | |
| * Thymus | | Atrophy | Mild |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1366

TRT#: 3

SEX: Male

DAY ON TEST: 737

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1366

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Salivary Glands
- * Stomach, Forestomach
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Seminal Vesicle
- * Stomach, Glandular
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Parathyroid Gland
- Skeletal Muscle
- * Trachea
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Prostate
- * Spinal Cord, Cervical
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Pheochromocytoma Benign
- Note: One of pair available for evaluation.
 - [Pheochromocytoma Benign TGLs = 3-7]
- * Eye
 - Atrophy
- * Heart
 - Retina
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- * Liver
 - Clear Cell Focus
 - Mixed Cell Focus
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Nose
 - Hyperplasia
- * Pancreas
 - Olfactory Epi
 - Acinus
 - Accumulation, Hyaline Droplet
 - Hyperplasia
- [Hyperplasia TGLs = 4-6]
 - Lymphocyte, Mild
 - Plasma Cell, Mild
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration
- * Pituitary Gland
 - Adenoma
- * Preputial Gland
 - Dilation
- * Skin
 - Subcut Tiss
 - Cyst Epithelial Inclusion
 - Fibroma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1366

TRT#: 3

SEX: Male

DAY ON TEST: 737

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1366

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|----------------------|
| [Cyst Epithelial Inclusion | TGLs = 1-20] | | |
| [Fibroma | TGLs = 2-21] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1367

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1367

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Lung
- * Pituitary Gland
- Skeletal Muscle
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Prostate
- * Skin
- Trigeminal Ganglion
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 Mild
- * Adrenal Medulla
 - Hyperplasia
 Minimal
- * Epididymis
 - Exfoliated Germ Cell
 - Hypospermia
 Minimal
Marked
- [Hyospermia TGLs = 2-16A]
- * Heart
 - Cardiomyopathy
 - Ventricl Rgt
 - Cardiomyopathy
 Mild
Mild
- * Islets, Pancreatic
 - Hyperplasia
 Mild
- * Kidney
 - Nephropathy
 Chronicprogr, Moderate
- [Nephropathy TGLs = 4-13]
- * Liver
 - Bile Duct
 - Hyperplasia
 - Mixed Cell Focus
 Minimal
- * Lymph Node, Mandibular
 - Hyperplasia
 Lymphocyte, Mild
- Mesentery
 - Artery
 - Inflammation
 Chronic Active, Minimal
- * Nerve Trigeminal
 - Degeneration
 Mild
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 Minimal
- * Pancreas
 - Acinus
 - Adenoma
 - Hyperplasia
 Marked
- [Adenoma TGLs = 5-6.1]
- [Hyperplasia TGLs = 6-6.1]
- * Peripheral Nerve, Sciatic
 - Degeneration
 Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1367

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1367

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|--|---|-------------------------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | Duct | Dilation Inflammation | Minimal Chronic Active, Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis Pigment | Moderate Mild |
| * Testis | Germ Cell Artery | Degeneration Inflammation | Marked Chronic Active, Marked |
| | [Degeneration TGLs = 1-16A] [Inflammation TGLs = 3-16A] | | |
| * Thymus | Artery | Atrophy Inflammation | Minimal Chronic Active, Moderate |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |

Animal Note: TGLs 5,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1368

TRT#: 3

SEX: Male

DAY ON TEST: 624

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1368

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Mammary Gland
- * Skin
- * Thyroid Gland
- * Aorta
- * Nerve Trigeminal
- * Spinal Cord, Cervical
Trigeminal Ganglion
- * Bone
- * Parathyroid Gland
- * Spinal Cord, Thoracic
- * Esophagus
- * Salivary Glands
- * Stomach, Forestomach

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Duodenum
- * Trachea
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Urinary Bladder
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Intestine Large, Rectum
- * Testis

OBSERVATIONS

- * Adrenal Cortex
 - * Bone Marrow
 - * Brain
 - * Epididymis
 - * Harderian Gland
 - * Heart
 - * Islets, Pancreatic
 - * Kidney
 - * Liver
 - * Lung
 - Lymph Node
 - * Lymph Node, Mandibular
- [Nephropathy TGLs = 3-13]
- [Lymphoma Malignant TGLs = 8-12]
- [Lymphoma Malignant TGLs = 9-10]
- [Hemorrhage TGLs = 19-20]
- [Lymphoma Malignant TGLs = 18-20]
- [Lymphoma Malignant TGLs = 1-9, 2-9]
- Meninges
- Ventricl Rgt
- Mediastinal
- Mediastinal
- Hyperplasia
- Lymphoma Malignant
- Lymphoma Malignant
- Exfoliated Germ Cell
- Inflammation
- Cardiomyopathy
- Cardiomyopathy
- Lymphoma Malignant
- Lymphoma Malignant
- Nephropathy
- Lymphoma Malignant
- Lymphoma Malignant
- Hemorrhage
- Lymphoma Malignant
- Lymphoma Malignant
- Mild
- Mild
- Chronic Active, Minimal
- Minimal
- Minimal
- Chronicprogr, Moderate
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1368

TRT#: 3

SEX: Male

DAY ON TEST: 624

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1368

ORGAN AND ACCOUNTABLE SITE STATUS

| | | |
|--|---|------------------------|
| * Lymph Node, Mesenteric [Lymphoma Malignant TGLs = 13-15, 14-15] | Lymphoma Malignant | |
| Mesentery Note: Adhered to capsule of spleen. [Lymphoma Malignant TGLs = 7-12] | Lymphoma Malignant | |
| * Nose Olfactory Epi Note: Approximately one-third of Level 3 absent. | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas [Lymphoma Malignant TGLs = 15-6] | Lymphoma Malignant | |
| * Peripheral Nerve, Sciatic | Degeneration | Mild |
| * Peripheral Nerve, Tibial | Degeneration | Mild |
| * Pituitary Gland Pars Distalis Pars Distalis | Hyperplasia Necrosis | Minimal Mild |
| * Preputial Gland | Inflammation | Chronic Active, Mild |
| * Prostate | Decreased Secretory Fluid Inflammation | Mild Acute, Minimal |
| * Seminal Vesicle [Decreased Secretory Fluid TGLs = 4-16] | Decreased Secretory Fluid | Marked |
| Skeletal Muscle | Degeneration | Mild |
| * Spinal Cord, Lumbar Nerve | Degeneration | Moderate |
| * Spleen [Lymphoma Malignant TGLs = 6-12] | Lymphoma Malignant | |
| * Stomach, Glandular | Erosion | Minimal |
| * Thymus [Lymphoma Malignant TGLs = 16,17-6] | Lymphoma Malignant | |

PRIMARY CAUSE OF DEATH - Spleen Lymphoma Malignant

Animal Note: TGLs 5,10,11,12 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1369

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1369

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|---------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Epididymis | * Esophagus | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Lymph Node, Mesenteric | * Mammary Gland | * Parathyroid Gland | * Salivary Glands |
| * Seminal Vesicle | * Stomach, Glandular | * Testis | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|---|--------------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Minimal |
| * Brain | Meninges | Mineral | Minimal |
| * Eye | Retina | Atrophy | Minimal |
| | Cornea, Epithelium | Hyperplasia | Minimal |
| | Cornea | Neovascularization | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Intestine Small, Duodenum | | Ectopic Tissue | |
| Note: Ectopic pancreas within wall of duodenum. | | | |
| * Islets, Pancreatic | | Carcinoma | |
| [Carcinoma TGLs = 5-6] | | | |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lung | Epithlm Alvlus | Hyperplasia | Mild |
| | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1369

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1369

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|-----------------------------------|------------------------------|------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| Note: Longitudinal section available for evaluation. | | | |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Cyst | |
| * Preputial Gland | Duct | Dilation | Marked |
| | | Inflammation | Chronic Active, Marked |
| | [Dilation TGLs = 2-16] | | |
| | [Inflammation TGLs = 3-16] | | |
| * Prostate | Epithelium | Hyperplasia | Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | | Inflammation | Suppurative, Moderate |
| Note: Crust composed of serum, neutrophils and abundant keratin. | | | |
| | [Inflammation TGLs = 1-20,20.1] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Minimal |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |

Animal Note: TGLs 4,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1372

TRT#: 3

SEX: Male

DAY ON TEST: 737

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1372

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Lung | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nerve Trigeminal | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

| | | | |
|-------------------------------|--------------------|-------------------------------|--------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Epididymis | | Hypospermia | Marked |
| Note: One epididymis normal. | | | |
| [Hypospermia TGLs = 3-16A] | | | |
| * Eye | Cornea, Epithelium | Hyperplasia | Minimal |
| | Cornea | Neovascularization | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricle Rgt | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Hyperplasia | Marked |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Moderate |
| [Hyperplasia TGLs = 4-6,14] | | | |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1372

TRT#: 3

SEX: Male

DAY ON TEST: 737

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1372

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|-----------|------------------------------|------------------------|
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| * Skin | | Inflammation | Chronic Active, Marked |
| | | Ulcer | Marked |
| [Ulcer TGLs = 1-20] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | Germ Cell | Degeneration | Marked |
| Note: One testis is normal | | | |
| [Degeneration TGLs = 2-16A] | | | |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |

Animal Note: One testis normal.

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1373

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1373

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--------------------------------|------------------------------|--------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 10-4] | | |
| * Preputial Gland | Duct | Dilation | Minimal |
| * Prostate | | Inflammation | Chronic Active, Marked |
| | [Inflammation TGLs = 4,5-16] | | |
| * Seminal Vesicle | | Inflammation | Chronic Active, Moderate |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | Prepuce | Hyperplasia | Mild |
| | Prepuce | Inflammation | Chronic Active, Mild |
| | Prepuce | Ulcer | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Urinary Bladder | Urothelium | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Moderate |
| | [Hyperplasia TGLs = 3-13] | | |
| | [Inflammation TGLs = 3-13] | | |

Animal Note: TGL 8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1374

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1374

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- Trigeminal Ganglion
- * Bone
- * Eye
- * Intestine Small, Jejunum
- * Mammary Gland
- * Stomach, Forestomach
- * Bone Marrow
- * Harderian Gland
- * Islets, Pancreatic
- * Prostate
- * Stomach, Glandular
- * Brain
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 - Mild
 - Mild
 - Minimal
- [Hypertrophy TGLs = 9-7, 8-7]
- * Adrenal Medulla
 - Pheochromocytoma Benign
- [Pheochromocytoma Benign TGLs = 7-7]
- * Epididymis
 - Exfoliated Germ Cell
- * Heart
 - Cardiomyopathy
- * Intestine Large, Cecum
 - Artery
 - Inflammation
- * Intestine Large, Colon
 - Artery
 - Inflammation
- * Intestine Large, Rectum
 - Artery
 - Inflammation
- * Kidney
 - Nephropathy
- [Nephropathy TGLs = 4,5-13]
- Lacrimal Gland
 - Metaplasia
- [Metaplasia TGLs = 2-20]
- * Liver
 - Eosinophilic Focus
 - Mixed Cell Focus
- * Lung
 - Inflammation
- Lymph Node
 - Lymph Sinus, Renal
 - Lymph Sinus, Mediastinal
 - Renal
 - Ectasia
 - Ectasia
 - Erythrophagocytosis
 - Granulomatous, Minimal
 - Moderate
 - Minimal
 - Mild
- [Ectasia TGLs = 6-20]
- [Ectasia TGLs = 12-21]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1374

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1374

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------------------|-------------------|-------------------------------|--------------------------|
| Mesentery | Artery | Inflammation | Chronic Active, Marked |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Artery | Inflammation | Chronic Active, Moderate |
| [Inflammation TGLs = 10-6,14] | | | |
| * Parathyroid Gland | | Adenoma | |
| [Adenoma TGLs = 15-8] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Marked |
| * Preputial Gland | Duct | Hyperplasia | Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | | Basal Cell Adenoma | |
| [Basal Cell Adenoma TGLs = 1-20] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Marked |
| * Thymus | Artery | Inflammation | Chronic Active, Moderate |
| * Thyroid Gland | Bilateral, C Cell | Adenoma | |
| [Adenoma TGLs = 14-8] | | | |
| * Urinary Bladder | Artery | Inflammation | Chronic Active, Mild |

Animal Note: TGLs 3,11,13 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1375

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1375

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|--------|---|--------------------------------------|
| [Hyperplasia TGLs = 3-4] | | | |
| * Preputial Gland | Duct | Dilation Inflammation | Moderate Chronic Active, Moderate |
| [Dilation TGLs = 4-16] | | | |
| * Prostate | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration Degeneration | Mild Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis Pigment | Minimal Minimal |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1376

TRT#: 3

SEX: Male

DAY ON TEST: 674

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1376

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|---------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Thymus | | Atrophy | Mild |
| | | Hemorrhage | Mild |
| * Thyroid Gland | C Cell | Adenoma | |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCMDA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1377

TRT#: 3

SEX: Male

DAY ON TEST: 711

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1377

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Epididymis | * Esophagus | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric | * Prostate |
| * Salivary Glands | * Seminal Vesicle | * Spinal Cord, Cervical | * Spinal Cord, Thoracic |
| * Stomach, Glandular | * Testis | * Trachea | * Urinary Bladder |

MISSING

* Mammary Gland

OBSERVATIONS

| | | | |
|-----------------------------|--|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| * Bone Marrow | | Hypercellularity | Moderate |
| * Eye | Retina | Atrophy | Minimal |
| | Cornea, Epithelium | Hyperplasia | Minimal |
| | Cornea | Neovascularization | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 2,5-10,20] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 3-6] | | |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1377

TRT#: 3

SEX: Male

DAY ON TEST: 711

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1377

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------------|------------------------------|----------|
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | Subcut Tiss | Fibroma | |
| [Fibroma TGLs = 1-20] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Minimal |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Fibroma

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1378

TRT#: 3

SEX: Male

DAY ON TEST: 542

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1378

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Rectum
- * Nerve Trigeminal
- * Salivary Glands
- * Spinal Cord, Cervical
- * Testis
- Trigeminal Ganglion
- * Aorta
- * Epididymis
- * Islets, Pancreatic
- * Parathyroid Gland
- * Seminal Vesicle
- * Spinal Cord, Thoracic
- * Thymus
- * Urinary Bladder
- * Bone
- * Esophagus
- * Lymph Node, Mandibular
- * Pituitary Gland
- Skeletal Muscle
- * Stomach, Forestomach
- * Thyroid Gland
- * Bone Marrow
- * Intestine Large, Colon
- * Lymph Node, Mesenteric
- * Prostate
- * Skin
- * Stomach, Glandular
- * Trachea

MISSING

- * Mammary Gland

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Jejunum
- * Intestine Large, Cecum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum

OBSERVATIONS

- * Adrenal Cortex
- * Harderian Gland
- * Heart
- * Kidney
- * Liver
- * Lung
- [Congestion TGLs = 1-10]
- * Nose
- Note: Level 3 largely absent.
- * Pancreas
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Preputial Gland
- Hyperplasia
- Hypertrophy
- Infiltration Cellular
- Cardiomyopathy
- Ventricl Rgt
- Cardiomyopathy
- Nephropathy
- Bile Duct
- Hyperplasia
- Congestion
- Olfactory Epi
- Accumulation, Hyaline Droplet
- Hyperplasia
- Degeneration
- Degeneration
- Inflammation
- Minimal
- Mild
- Lymphocyte, Minimal
- Moderate
- Minimal
- Chronicprogr, Moderate
- Minimal
- Moderate
- Mild
- Marked
- Minimal
- Mild
- Chronic Active, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1378

TRT#: 3

SEX: Male

DAY ON TEST: 542

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1378

ORGAN AND ACCOUNTABLE SITE STATUS

* Spinal Cord, Lumbar

Nerve

Degeneration

Minimal

* Spleen

Extramedullary Hematopoiesis

Minimal

PRIMARY CAUSE OF DEATH

- Heart Cardiomyopathy

CONTRIBUTORY CAUSE OF DEATH

- Heart Ventricl Rgt Cardiomyopathy

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1380

TRT#: 3

SEX: Male

DAY ON TEST: 666

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1380

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|--------------------------|-----------------------------|----------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Bone Marrow |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Pancreas | * Preputial Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | Skeletal Muscle |
| * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular | * Testis |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- * Mammary Gland

AUTO PRECLUDES DIAG.

- * Intestine Large, Rectum
- * Intestine Small, Ileum

OBSERVATIONS

- | | | | |
|-----------------------------|--|-------------------------------|----------------------|
| * Adrenal Medulla | | Hyperplasia | Minimal |
| | | Pheochromocytoma Benign | Multiple |
| | [Pheochromocytoma Benign TGLs = 4-7] | | |
| * Brain | Glial Cell | Hyperplasia | Minimal |
| * Heart | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Mild |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 3-13] | | |
| * Liver | | Mixed Cell Focus | |
| * Lung | | Congestion | Mild |
| | [Congestion TGLs = 1-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1380

TRT#: 3

SEX: Male

DAY ON TEST: 666

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1380

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---------------|------------------------------|----------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Skin | | Cyst Epithelial Inclusion | |
| | Subcut Tiss | Fibroma | |
| [Fibroma TGLs = 2-20] | | | |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Moderate |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1381

TRT#: 3

SEX: Male

DAY ON TEST: 388

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1381

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Bulbourethral Gland
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Prostate
- * Skin
- * Stomach, Forestomach
- * Trachea
- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Salivary Glands
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Trigeminal Ganglion
- * Bone
- * Eye
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Parathyroid Gland
- * Seminal Vesicle
- * Spinal Cord, Thoracic
- * Testis
- * Bone Marrow
- * Harderian Gland
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- * Pituitary Gland
- * Skeletal Muscle
- * Spleen
- * Thyroid Gland

MISSING

- * Mammary Gland

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> * Adrenal Cortex * Brain Bulboureth GI <li style="padding-left: 20px;">Note: One of pair available for evaluation. * Epididymis * Kidney <li style="padding-left: 40px;">[Nephropathy TGLs = 4-13] * Liver * Lung <li style="padding-left: 40px;">[Congestion TGLs = 6,7-10] * Nerve Trigeminal * Nose | <ul style="list-style-type: none"> Hyperplasia Hemorrhage Necrosis Exfoliated Germ Cell Nephropathy Hyperplasia Congestion Hemorrhage Degeneration Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet | <ul style="list-style-type: none"> Mild Mild Marked Minimal Chronicprogr, Moderate Minimal Moderate Mild Minimal Minimal Moderate |
|---|---|--|

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1381

TRT#: 3

SEX: Male

DAY ON TEST: 388

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1381

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------|--------------|----------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Hemorrhage | Mild |
| * Urinary Bladder | | Hemorrhage | Mild |
| | | Inflammation | Acute, Minimal |

[Hemorrhage TGLs = 5-13]

PRIMARY CAUSE OF DEATH - Brain Necrosis

Animal Note: TGLs 1,2 = NCL (No Corresponding Lesion)

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1382

TRT#: 3

SEX: Male

DAY ON TEST: 647

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1382

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lung | * Lymph Node, Mesenteric | * Mammary Gland | * Nerve Trigeminal |
| * Pituitary Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Spinal Cord, Lumbar |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |

OBSERVATIONS

| | | | |
|-----------------------------|--|--|--|
| * Adrenal Medulla | | Hyperplasia Pheochromocytoma Benign | Moderate |
| | [Pheochromocytoma Benign TGLs = 1-7] | | |
| * Heart | Ventricl Rgt | Cardiomyopathy Cardiomyopathy | Minimal Mild |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 2,3-13] | | |
| * Liver | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia Proliferation | Lymphocyte, Moderate Plasma Cell, Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus Acinus Artery | Atrophy Hyperplasia Inflammation | Minimal Minimal Chronic Active, Marked |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | Duct | Dilation Inflammation | Mild Chronic Active, Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1382

TRT#: 3

SEX: Male

DAY ON TEST: 647

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1382

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------|--------|--------------|------------------------|
| * Testis | Artery | Inflammation | Chronic Active, Marked |
| * Thymus | | Atrophy | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Urinary Bladder | | Dilation | Marked |
| [Dilation TGLs = 4-13] | | | |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1383

TRT#: 3

SEX: Male

DAY ON TEST: 605

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1383

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Lung | * Lymph Node, Mesenteric | * Mammary Gland |
| * Parathyroid Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

INSUFFICIENT TISSUE

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|---------------------------------|---------------------------------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Bone Marrow | | Hypercellularity | Marked |
| * Epididymis | | Hypospermia | Marked |
| Note: One epididymis is normal. | | | |
| * Heart | | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Adenoma | |
| | | Hyperplasia | Moderate |
| | [Adenoma TGLs = 9-14] | | |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| | [Nephropathy TGLs = 3-13] | | |
| * Liver | | Extramedullary Hematopoiesis | Minimal |
| | | Mixed Cell Focus | |
| | Lymph Node Mediastinal | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 8-20] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| | [Hyperplasia TGLs = 7-9] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1383

TRT#: 3

SEX: Male

DAY ON TEST: 605

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1383

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|------------------------------|--------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Preputial Gland | | Inflammation | Chronic Active, Moderate |
| [Inflammation TGLs = 5-16] | | | |
| * Skin | Subcut Tiss | Fibroma | |
| [Fibroma TGLs = 6-21] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| [Extramedullary Hematopoiesis TGLs = 4-12] | | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Minimal |
| | | Ulcer | Mild |
| * Testis | Germ Cell | Degeneration | Marked |
| Note: One testis is normal. | | | |
| [Degeneration TGLs = 2-16A] | | | |
| * Thymus | | Atrophy | Moderate |

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Fibroma

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1384

TRT#: 3

SEX: Male

DAY ON TEST: 697

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1384

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Skin
- * Thyroid Gland
- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Trachea
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Stomach, Glandular
- * Urinary Bladder

INSUFFICIENT TISSUE

- * Thymus

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Thrombus
 - Vacuolation, Cytoplasmic
- * Bone
 - Fibrous Osteodystrophy
- * Bone Marrow
 - Hypercellularity
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Epididymis
 - [Hypospermia TGLs = 13-16A]
- * Eye
 - Antr Chamber
- * Heart
 - Atrium
 - [Thrombus TGLs = 5,6-11]
- * Kidney
 - [Nephropathy TGLs = 3,10-13]
- * Liver
 - Bile Duct
- * Lung
 - Alveolus
 - Interstitialium
 - [Hemorrhage TGLs = 4-10]
 - [Infiltration Cellular TGLs = 4-10]

- Mild
- Mild
- Mild
- Mild
- Moderate
- Hypospermia
- Marked
- Inflammation
- Cardiomyopathy
- Thrombus
- Marked
- Nephropathy
- Chronicprogr, Marked
- Hyperplasia
- Hemorrhage
- Infiltration Cellular
- Inflammation
- Minimal
- Mild
- Histiocyte, Moderate
- Chronic, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1384

TRT#: 3

SEX: Male

DAY ON TEST: 697

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1384

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|----------------|-------------------------------|-------------------------|
| Lymph Node | Mediastinal | Erythrophagocytosis | Moderate |
| | Mediastinal | Pigment | Mild |
| [Erythrophagocytosis | TGLs = 12-6] | | |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | | Adenoma | |
| | Acinus | Atrophy | Minimal |
| | Acinus | Hyperplasia | Moderate |
| | Artery | Inflammation | Chronic Active, Marked |
| | | Thrombus | Moderate |
| [Adenoma | TGLs = 15-6] | | |
| [Hyperplasia | TGLs = 15-6] | | |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | | | |
| Note: Pars distalis available for evaluation. | | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| * Prostate | | Inflammation | Chronic Active, Minimal |
| [Inflammation | TGLs = 14-16] | | |
| * Salivary Glands | Parotid Gland | Atrophy | Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| [Decreased Secretory Fluid | TGLs = 8-16] | | |
| Skeletal Muscle | | Degeneration | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Minimal |
| | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1384

TRT#: 3

SEX: Male

DAY ON TEST: 697

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1384

ORGAN AND ACCOUNTABLE SITE STATUS

* Testis

Germ Cell

Degeneration

Marked

Artery

Inflammation

Chronic Active, Mild

Germinal Epith

Mineral

Mild

[Degeneration TGLs = 7-16A]

PRIMARY CAUSE OF DEATH - Heart Atrium Thrombus

CONTRIBUTORY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 9,11 = NCL (No Corresponding Lesion)

Animal Note: TGLs 1,2 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1386

TRT#: 3

SEX: Male

DAY ON TEST: 722

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1386

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Small, Ileum
- * Preputial Gland
- * Stomach, Glandular
- Trigeminal Ganglion
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Salivary Glands
- * Testis
- * Urinary Bladder
- * Epididymis
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Seminal Vesicle
- * Thyroid Gland
- * Esophagus
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Trachea

MISSING

- * Mammary Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Adrenal Medulla
 - Hyperplasia
- * Bone Marrow
 - Leukemia Mononuclear
- * Brain
 - Leukemia Mononuclear
- [Leukemia Mononuclear TGLs = 9-2]
- * Eye
 - Cornea, Epithelium
 - Cornea
 - Hyperplasia
 - Inflammation
- * Heart
 - Cardiomyopathy
- * Intestine Large, Colon
 - Cyst

Note: Dilated, epithelial-lined structure in muscularis likely a developmental abnormality.

 - [Cyst TGLs = 1-20]
- * Kidney
 - Nephropathy
 - [Nephropathy TGLs = 8-13]
- * Liver
 - Leukemia Mononuclear
- * Lung
 - Leukemia Mononuclear
 - [Leukemia Mononuclear TGLs = 2-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Nerve Trigeminal
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1386

TRT#: 3

SEX: Male

DAY ON TEST: 722

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1386

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--------------------------------------|-------------------------------|-------------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | | Adenoma | |
| | Acinus | Atrophy | Mild |
| | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Minimal |
| | [Adenoma TGLs = 6-6] | | |
| | [Hyperplasia TGLs = 6-6,14] | | |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Hyperplasia | Marked |
| * Prostate | | Inflammation | Chronic Active, Minimal |
| Skeletal Muscle | | Degeneration | Moderate |
| * Skin | Subcut Tiss | Hemangiosarcoma | |
| | [Hemangiosarcoma TGLs = 10-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLs = 7-12] | | |
| * Stomach, Forestomach | | Mineral | Minimal |
| | | Ulcer | Minimal |
| * Thymus | | Atrophy | Moderate |

PRIMARY CAUSE OF DEATH - Brain Leukemia Mononuclear

Animal Note: TGLs 3,4,5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1387

TRT#: 3

SEX: Male

DAY ON TEST: 705

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1387

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|---------------------------|-----------------------------|--------------------------|
| * Bone Marrow | * Brain | * Esophagus | * Harderian Gland |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| Lymph Node | * Mammary Gland | * Pituitary Gland | * Salivary Glands |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Thyroid Gland |
| * Trachea | * Urinary Bladder | | |

MISSING

Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- | | | | |
|--------------------------|--|-------------------------|-------------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| * Adrenal Medulla | | Hyperplasia | Mild |
| | | Pheochromocytoma Benign | |
| | [Pheochromocytoma Benign TGLs = 4-7] | | |
| * Aorta | | Dilation | Mild |
| | | Mineral | Moderate |
| * Bone | | Fibrous Osteodystrophy | Moderate |
| * Epididymis | | Hypospermia | Marked |
| * Eye | Retina | Atrophy | Mild |
| | Cornea | Inflammation | Acute, Minimal |
| | Antr Chamber | Inflammation | Acute, Minimal |
| * Heart | | Cardiomyopathy | Moderate |
| | Ventricl Rgt | Cardiomyopathy | Mild |
| | Artery | Mineral | Moderate |
| | Atrium | Thrombus | Marked |
| | [Thrombus TGLs = 11,12-11] | | |
| * Intestine Large, Cecum | | Inflammation | Chronic Active, Minimal |
| * Islets, Pancreatic | | Adenoma | |
| * Kidney | | Nephropathy | Chronicprogr, Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1387

TRT#: 3

SEX: Male

DAY ON TEST: 705

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1387

ORGAN AND ACCOUNTABLE SITE STATUS

[Nephropathy TGLs = 5,10-13]

| | | | |
|---------|--------------|-----------------------|----------------------|
| * Liver | Bile Duct | Hyperplasia | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Moderate |
| | Interstitium | Inflammation | Chronic, Moderate |
| | Interstitium | Mineral | Minimal |

[Inflammation TGLs = 8-10]

| | | | |
|--------------------------|-------------|---------------------|----------|
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Moderate |
| | | Erythrophagocytosis | Moderate |

[Erythrophagocytosis TGLs = 6-9]

| | | | |
|--------------------------|---------------|-------------------------------|---------|
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |

Note: Approximately one-third of level 3 available for evaluation.

| | | | |
|---------------------|--------|--------------|-------------------------|
| * Pancreas | Acinus | Hyperplasia | Minimal |
| | Artery | Inflammation | Chronic Active, Minimal |
| | Artery | Mineral | Moderate |
| * Parathyroid Gland | | Hyperplasia | Marked |

[Hyperplasia TGLs = 13-8]

| | | | |
|-----------------------------|--|--------------|----------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | | | |

Note: Pars distalis available for evaluation.

| | | | |
|-------------------|------|----------|----------|
| * Preputial Gland | Duct | Dilation | Moderate |
|-------------------|------|----------|----------|

[Dilation TGLs = 1-16]

| | | | |
|------------|--|---------------------------|------|
| * Prostate | | Decreased Secretory Fluid | Mild |
|------------|--|---------------------------|------|

[Decreased Secretory Fluid TGLs = 9-16]

| | | | |
|-------------------|--|---------------------------|----------|
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
|-------------------|--|---------------------------|----------|

[Decreased Secretory Fluid TGLs = 3-16]

| | | | |
|-------------------------|-------|--------------|----------|
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1387

TRT#: 3

SEX: Male

DAY ON TEST: 705

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1387

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------|-------------------------------|------------------------------|--------------------------|
| * Spleen | White Pulp | Atrophy | Moderate |
| | | Extramedullary Hematopoiesis | Mild |
| * Stomach, Glandular | | Mineral | Marked |
| * Testis | Germ Cell | Degeneration | Marked |
| | Artery | Inflammation | Chronic Active, Moderate |
| | [Degeneration TGLs = 2-16A] | | |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Heart Atrium Thrombus

CONTRIBUTORY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGL 14 = NCL (No Corresponding Lesion)

Animal Note: TGL 7 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1388

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1388

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lung |
| * Lymph Node, Mesenteric | * Mammary Gland | * Preputial Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|---------------------------|-----------------|-------------------------------|-----------------------|
| * Adrenal Medulla | | Pheochromocytoma Benign | |
| [Pheochromocytoma Benign | TGLs = 4,5-7] | | |
| * Heart | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Mild |
| * Islets, Pancreatic | | Adenoma | |
| | | Hyperplasia | Marked |
| [Adenoma | TGLs = 3-6] | | |
| * Kidney | Renal Tubule | Cyst | |
| | | Nephropathy | Chronicprogr, Marked |
| [Nephropathy | TGLs = 6-13] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Moderate |
| | | Proliferation | Plasma Cell, Moderate |
| [Hyperplasia | TGLs = 1-9] | | |
| [Proliferation | TGLs = 1-9] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | | Adenoma | |
| | Acinus | Hyperplasia | Marked |
| [Adenoma | TGLs = 3-6] | | |
| [Hyperplasia | TGLs = 3-6,14] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1388

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1388

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------------------|------------------------------|--------------------------|
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Intermed | Angiectasis | Moderate |
| | Pars Distalis | Hyperplasia | Mild |
| | [Angiectasis TGLs = 8-4] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Moderate |
| * Thyroid Gland | C Cell | Adenoma | |
| | [Adenoma TGLs = 7-8] | | |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1389

TRT#: 3

SEX: Male

DAY ON TEST: 686

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1389

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Liver | * Mammary Gland |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Spinal Cord, Cervical |
| * Stomach, Forestomach | * Stomach, Glandular | * Testis | * Thymus |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- | | |
|--------------------------|---------------------|
| * Lymph Node, Mesenteric | * Parathyroid Gland |
|--------------------------|---------------------|

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum

OBSERVATIONS

- | | | |
|------------------------------|----------------|-------------------------------|
| * Brain | Compression | Mild |
| | Hemorrhage | Moderate |
| [Compression TGLs = 6-2] | | |
| * Heart | Cardiomyopathy | Mild |
| * Islets, Pancreatic | Adenoma | |
| [Adenoma TGLs = 1-6] | | |
| * Kidney | Nephropathy | Chronicprogr, Moderate |
| [Nephropathy TGLs = 3-13] | | |
| * Lung | Congestion | Moderate |
| [Congestion TGLs = 4-10] | | |
| * Lymph Node, Mandibular | Proliferation | Plasma Cell, Mild |
| [Proliferation TGLs = 5-9] | | |
| * Nerve Trigeminal | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet |
| * Pancreas | Acinus | Hyperplasia |
| * Peripheral Nerve, Sciatic | | Degeneration |
| * Peripheral Nerve, Tibial | | Degeneration |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1389

TRT#: 3

SEX: Male

DAY ON TEST: 686

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1389

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|---|-------------------------------------|
| * Pituitary Gland [Adenoma TGLs = 2-4] | Pars Distalis | Adenoma | |
| * Preputial Gland | Duct | Dilation Inflammation | Moderate Chronic Active, Minimal |
| * Prostate | | Inflammation | Chronic Active, Minimal |
| * Skin [Cyst Epithelial Inclusion TGLs = 7-9,20RT] | | Cyst Epithelial Inclusion | |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis Pigment | Mild Moderate |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1390

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1390

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Stomach, Glandular
- * Urinary Bladder
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Parathyroid Gland
- Skeletal Muscle
- * Thyroid Gland
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Prostate
- * Spinal Cord, Cervical
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Epididymis
- * Heart
- * Islets, Pancreatic
- [Adenoma TGLs = 5-6]
- * Kidney
- [Nephropathy TGLs = 4-13]
- * Liver
- * Lung
- Alveolus
- [Congestion TGLs = 6-10]
- [Infiltration Cellular TGLs = 7-10]
- * Lymph Node, Mandibular
- * Mammary Gland
- * Nerve Trigeminal
- * Nose
- * Pancreas
- [Hyperplasia TGLs = 5-6,14]
- * Peripheral Nerve, Sciatic
- Vacuolation, Cytoplasmic
- Hyperplasia
- Pheochromocytoma Benign
- Exfoliated Germ Cell
- Cardiomyopathy
- Adenoma
- Nephropathy
- Mixed Cell Focus
- Congestion
- Infiltration Cellular
- Hyperplasia
- Proliferation
- Dilation
- Degeneration
- Accumulation, Hyaline Droplet
- Hyperplasia
- Degeneration
- Mild
- Minimal
- Minimal
- Mild
- Chronicprogr, Marked
- Mild
- Histiocyte, Minimal
- Lymphocyte, Mild
- Plasma Cell, Mild
- Minimal
- Moderate
- Minimal
- Marked
- Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1390

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1390

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|------------------------------|------------------------------|------------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| * Preputial Gland | Duct | Dilation | Marked |
| | [Dilation TGLs = 2,3-16] | | |
| * Skin | | Inflammation | Chronic Active, Marked |
| | | Ulcer | Mild |
| | [Inflammation TGLs = 1-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Marked |
| * Thymus | | Atrophy | Mild |

Animal Note: TGL 8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1391

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1391

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lymph Node, Mesenteric | * Salivary Glands |
| * Seminal Vesicle | Skeletal Muscle | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | * Urinary Bladder | | |

MISSING

- | | |
|-----------------|---------------------|
| * Mammary Gland | * Parathyroid Gland |
|-----------------|---------------------|

OBSERVATIONS

- | | | | |
|---|---------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Degeneration | Mild |
| | | Hyperplasia | Moderate |
| | | Hypertrophy | Mild |
| [Degeneration TGLs = 6-7] | | | |
| * Adren Medulla | | | |
| Note: One of pair available for evaluation. | | | |
| * Eye | Retina | Atrophy | Minimal |
| * Heart | | Cardiomyopathy | Mild |
| * Islets, Pancreatic | | Adenoma | |
| | | Hyperplasia | Marked |
| [Adenoma TGLs = 4-6] | | | |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| [Nephropathy TGLs = 5-13] | | | |
| * Liver | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| | Olfactory Epi | Hyperplasia | Mild |
| * Pancreas | Acinus | Hyperplasia | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1391

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1391

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|--------------------------|
| [Hyperplasia TGLs = 4-6] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Hyperplasia | Mild |
| [Adenoma TGLs = 7-4] | | | |
| * Preputial Gland | Duct | Dilation | Marked |
| [Dilation TGLs = 2,3-16] | | | |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| * Skin | Subcut Tiss | Fibroma | |
| [Fibroma TGLs = 1-20] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1392

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1392

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------------------|-------|------------------------------|------------------------------------|
| * Preputial Gland | Duct | Dilation Inflammation | Marked Chronic Active, Moderate |
| [Dilation TGLs = 3-16] | | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | | Keratoacanthoma | |
| [Keratoacanthoma TGLs = 1-20] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Thymus | | Atrophy | Minimal |

Animal Note: TGL 5 = NST (No Section Taken)

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1393

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1393

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric | * Mammary Gland |
| * Parathyroid Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Eye | Retina | Atrophy | Minimal |
| | Cornea, Epithelium | Hyperplasia | Mild |
| | Cornea | Neovascularization | Minimal |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Liver | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 3-10] | | |
| | Lymph Node | | |
| | [Erythrophagocytosis TGLs = 4-20] | Erythrophagocytosis | Mild |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Mild |
| | | Hyperplasia | Lymphocyte, Minimal |
| | | Infiltration Cellular | Histiocyte, Minimal |
| | [Ectasia TGLs = 2-9] | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1393

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1393

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|---------------|------------------------------|---------|
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Preputial Gland | Duct | Dilation | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Hemorrhage | Minimal |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Minimal |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |

Animal Note: TGLs 1,5,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1394

TRT#: 3

SEX: Male

DAY ON TEST: 711

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1394

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Harderian Gland
- * Intestine Small, Duodenum
- * Pituitary Gland
- * Thyroid Gland
- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- Skeletal Muscle
- * Trachea
- * Brain
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Skin
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- * Stomach, Glandular

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia Moderate
 - Vacuolation, Cytoplasmic Mild
- * Bone
 - Fibrous Osteodystrophy Mild
- * Bone Marrow
 - Hemorrhage Mild
- * Epididymis
 - Exfoliated Germ Cell Mild
 - Hypospermia Moderate
- * Eye
 - Cornea, Epithelium
 - Hyperplasia Moderate
 - Cornea
 - Inflammation Acute, Moderate
- * Heart
 - Ventricle Rgt
 - Cardiomyopathy Minimal
 - Cardiomyopathy Moderate
 - Atrium
 - Dilation Marked
 - Atrium
 - Thrombus Marked
- * Kidney
 - Renal Tubule
 - [Dilation TGLs = 17-11]
 - [Thrombus TGLs = 18,19-11]
 - Cyst
 - Nephropathy Chronicprogr, Marked
- * Liver
 - [Cyst TGLs = 15,16-13]
 - [Nephropathy TGLs = 4-13]
- * Lung
 - Hepatocyte
 - Vacuolation, Cytoplasmic Minimal
 - Alveolus
 - Infiltration Cellular Histocyte, Marked
 - Artery
 - Inflammation Chronic Active, Mild
 - Interstitium
 - Inflammation Chronic, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1394

TRT#: 3

SEX: Male

DAY ON TEST: 711

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1394

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|-------------------|-------------------------------|------------------------|
| [Infiltration Cellular | TGLs = 11-10] | | |
| Lymph Node | Iliac | Erythrophagocytosis | Moderate |
| [Erythrophagocytosis | TGLs = 22,23-20] | | |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Moderate |
| [Erythrophagocytosis | TGLs = 14-15] | | |
| * Mammary Gland | | Atrophy | Mild |
| Mesentery | Artery | Inflammation | Chronic Active, Marked |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| [Hyperplasia | TGLs = 21-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | Duct | Dilation | Marked |
| | | Inflammation | Suppurative, Mild |
| Note: One of pair available for evaluation. | | | |
| [Dilation | TGLs = 1-16] | | |
| * Prostate | | Inflammation | Acute, Minimal |
| * Salivary Glands | Parotid GI | Atrophy | Moderate |
| | Submandibul GI | Atrophy | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| [Decreased Secretory Fluid | TGLs = 3-16] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Minimal |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Moderate |
| | | Ulcer | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1394

TRT#: 3

SEX: Male

DAY ON TEST: 711

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1394

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|-----------|--------------|--------------------------|
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| [Degeneration TGLs = 2-16A] | | | |
| * Thymus | | Atrophy | Marked |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Heart Atrium Thrombus

CONTRIBUTORY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 5,6,7,8,9,12,20 = NCL (No Corresponding Lesion)

Animal Note: TGLs 10,13 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1395

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1395

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Esophagus | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lung | * Mammary Gland | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|--------------------------|-----------------------------|-------------------------------|--------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Mild |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Eye | Retina | Atrophy | Minimal |
| | Cornea | Neovascularization | Minimal |
| * Harderian Gland | | Atrophy | Minimal |
| * Heart | | Cardiomyopathy | Moderate |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 2-13] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Moderate |
| | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| | [Ectasia TGLs = 6-9.1] | | |
| * Lymph Node, Mesenteric | | Hyperplasia | Lymphocyte, Minimal |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Adenoma | |
| | | Hyperplasia | Moderate |
| | [Adenoma TGLs = 3-6] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1395

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1395

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------------------|------------------------------|--------------------------|
| | [Hyperplasia TGLs = 3-6] | | |
| * Parathyroid Gland | | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 5-4] | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 1-16] | | |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| | | Inflammation | Chronic Active, Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Minimal |

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1396

TRT#: 3

SEX: Male

DAY ON TEST: 737

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1396

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skin
- * Urinary Bladder
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Ileum
- * Mammary Gland
- * Stomach, Glandular
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Prostate
- * Thyroid Gland
- * Esophagus
- * Intestine Large, Rectum
- * Lung
- * Seminal Vesicle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Degeneration
 - Hyperplasia
 - Hypertrophy
 - [Degeneration TGLs = 5-7]
 - * Adrenal Medulla
 - * Bone
 - * Epididymis
 - * Heart
 - * Intestine Large, Cecum
 - * Islets, Pancreatic
 - Artery
 - Adenoma
 - [Adenoma TGLs = 7-6]
 - * Kidney
 - Renal Tubule
 - Cyst
 - Nephropathy
 - Thrombus
 - [Cyst TGLs = 2-20]
 - [Nephropathy TGLs = 3,4-13]
 - * Liver
 - Bile Duct
 - Bile Duct
 - Cyst
 - Hyperplasia
 - [Cyst TGLs = 6-12]
 - * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Hyperplasia
 - Proliferation
- Cystic, Minimal
Mild
Mild
Moderate
Minimal
Minimal
Moderate
Chronic Active, Mild
Chronicprogr, Marked
Moderate
Minimal
Mild
Lymphocyte, Mild
Plasma Cell, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1396

TRT#: 3

SEX: Male

DAY ON TEST: 737

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1396

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|-------------------------------|--------------------------|
| Mesentery | Artery | Inflammation | Chronic Active, Minimal |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Marked |
| [Hyperplasia TGLs = 9-8] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Intermed | Cyst | |
| [Adenoma TGLs = 8-4] | | | |
| * Preputial Gland | Duct | Dilation | Minimal |
| | | Inflammation | Chronic Active, Moderate |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Pigment | Moderate |
| * Stomach, Forestomach | | Edema | Minimal |
| | Epithelium | Hyperplasia | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Marked |
| * Thymus | | Atrophy | Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1398

TRT#: 3

SEX: Male

DAY ON TEST: 655

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1398

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|--------------------------------------|----------------------|----------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Spinal Cord, Cervical | | Leukemia Mononuclear | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Leukemia Mononuclear | |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| | | Leukemia Mononuclear | |
| * Spleen | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLs = 3-12] | | |
| * Thymus | | Atrophy | Moderate |

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1399

TRT#: 3

SEX: Male

DAY ON TEST: 525

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1399

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-------------------------|--------------------------|-----------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Mammary Gland | * Nerve Trigeminal |
| * Parathyroid Gland | * Salivary Glands | Skeletal Muscle | * Spinal Cord, Cervical |
| * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular | * Testis |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- * Intestine Large, Rectum

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Ileum

OBSERVATIONS

- | | | | |
|--------------------------------|---------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricle Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| Lymph Node | Bronchial | Erythrophagocytosis | Mild |
| | Bronchial | Hyperplasia | Lymphocyte, Minimal |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| Note: Level 3 largely damaged. | | | |
| * Pancreas | Acinus | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| * Prostate | | Decreased Secretory Fluid | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1399

TRT#: 3

SEX: Male

DAY ON TEST: 525

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1399

ORGAN AND ACCOUNTABLE SITE STATUS

| | | |
|--|------------------------------|----------|
| * Seminal Vesicle [Decreased Secretory Fluid TGLs = 3-16] | Decreased Secretory Fluid | Moderate |
| * Skin [Cyst Epithelial Inclusion TGLs = 2-20] | Cyst Epithelial Inclusion | |
| * Spinal Cord, Lumbar Nerve | Degeneration | Mild |
| * Spleen | Extramedullary Hematopoiesis | Minimal |
| * Thymus | Atrophy | Mild |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1400

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1400

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Stomach, Glandular
- * Aorta
- * Esophagus
- * Intestine Small, Ileum
- * Mammary Gland
- * Trachea
- * Bone
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Urinary Bladder
- * Bone Marrow
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Stomach, Forestomach

OBSERVATIONS

- * Adrenal Medulla
 - Hyperplasia
 - Pheochromocytoma Benign
 - Pheochromocytoma Malignant
 - [Pheochromocytoma Benign TGLs = 6-7]
 - [Pheochromocytoma Malignant TGLs = 8-7]
- * Epididymis
 - Exfoliated Germ Cell
- * Eye
 - Retina
 - Cornea, Epithelium
 - Cornea
 - Cornea
 - Atrophy
 - Hyperplasia
 - Inflammation
 - Neovascularization
- * Harderian Gland
 - Atrophy
- * Heart
 - Cardiomyopathy
 - Ventricl Rgt
 - Atrium, Myocardium
 - Cardiomyopathy
 - Hypertrophy
- * Intestine Large, Cecum
 - [Hypertrophy TGLs = 13-11]
 - Artery
 - Inflammation
- * Kidney
 - Nephropathy
 - [Nephropathy TGLs = 9,10,11-13]
- * Liver
 - Bile Duct
 - Hyperplasia
 - Mixed Cell Focus
 - [Mixed Cell Focus TGLs = 7-12]
- * Lung
 - Inflammation
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Hyphplasia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1400

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1400

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|-------------------------------|------------------------------|
| * Nerve Trigeminal | | Proliferation | Plasma Cell, Mild |
| * Nose | Olfactory Epi | Degeneration | Minimal |
| * Pancreas | Acinus | Accumulation, Hyaline Droplet | Minimal |
| | Artery | Hyperplasia | Mild |
| | | Inflammation | Chronic Active, Mild |
| | | Pheochromocytoma Malignant | Metastatic (Adrenal Medulla) |
| | [Hyperplasia TGLs = 12-6] | | |
| | [Pheochromocytoma Malignant TGLs = 12-6] | | |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| Penis | | Concretion | Minimal |
| | [Concretion TGLs = 1-20] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| | [Hyperplasia TGLs = 15-4] | | |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Minimal |
| | [Decreased Secretory Fluid TGLs = 5-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | | Squamous Cell Papilloma | |
| | [Squamous Cell Papilloma TGLs = 14-21] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Testis | Interstit Cell | Adenoma | |
| | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1400

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1400

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLs = 2-16A]

* Thymus

Atrophy

Mild

* Thyroid Gland

C Cell

Hyperplasia

Mild

Trigeminal Ganglion

Degeneration

Minimal

Animal Note: TGLs 3,4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1401

TRT#: 3

SEX: Male

DAY ON TEST: 552

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1401

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Mammary Gland
- * Salivary Glands
- * Spinal Cord, Lumbar
- * Adrenal Medulla
- * Esophagus
- * Nerve Trigeminal
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Aorta
- * Islets, Pancreatic
- * Parathyroid Gland
- * Skin
- * Stomach, Glandular
- * Bone
- * Lymph Node, Mesenteric
- * Prostate
- * Spinal Cord, Cervical
- Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Ileum
- * Urinary Bladder
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Intestine Large, Colon
- * Thyroid Gland
- * Intestine Large, Rectum
- * Trachea

OBSERVATIONS

- * Bone Marrow
- * Epididymis
- * Harderian Gland
- * Heart
- * Intestine Small, Duodenum
- [Ulcer TGLs = 7,8-20,21]
- * Kidney
- * Liver
- * Lung
- [Congestion TGLs = 13-10]
- [Inflammation TGLs = 14-10]
- Lymph Node
- [Erythrophagocytosis TGLs = 9,10-20]
- [Erythrophagocytosis TGLs = 11,12-21]
- * Lymph Node, Mandibular
- Hypercellularity
- Exfoliated Germ Cell
- Inflammation
- Cardiomyopathy
- Atrium, Myocardium
- Atrium
- Necrosis
- Thrombus
- Ulcer
- Nephropathy
- Necrosis
- Congestion
- Alveolus
- Infiltration Cellular
- Inflammation
- Erythrophagocytosis
- Erythrophagocytosis
- Congestion
- Marked
- Minimal
- Granulomatous, Minimal
- Mild
- Mild
- Mild
- Marked
- Chronicprogr, Mild
- Moderate
- Mild
- Histiocyte, Marked
- Chronic Active, Mild
- Marked
- Moderate
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1401

TRT#: 3

SEX: Male

DAY ON TEST: 552

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1401

ORGAN AND ACCOUNTABLE SITE STATUS

[Congestion TGLs = 15-9]

| | | | |
|---|---------------|-------------------------------|----------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| Note: Pars distalis available for evaluation. | | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Mild |

[Dilation TGLs = 1,2-16]

| | | | |
|-------------------|--|---------------------------|--------|
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
|-------------------|--|---------------------------|--------|

[Decreased Secretory Fluid TGLs = 4-16]

| | | | |
|------------------------|------------|------------------------------|--------|
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Marked |
| * Testis | Germ Cell | Degeneration | Mild |

[Degeneration TGLs = 6-16A]

| | | | |
|----------|--|---------|----------|
| * Thymus | | Atrophy | Moderate |
|----------|--|---------|----------|

PRIMARY CAUSE OF DEATH - Liver Hepatocyte Necrosis

CONTRIBUTORY CAUSE OF DEATH - Intestine Small, Duodenum Ulcer

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Animal Note: TGL 3 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1402

TRT#: 3

SEX: Male

DAY ON TEST: 695

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1402

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Intestine Large, Colon
- * Lymph Node, Mandibular
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Intestine Small, Duodenum
- * Pituitary Gland
- * Stomach, Glandular
- * Esophagus
- * Intestine Small, Ileum
- * Skin
- * Thyroid Gland
- * Harderian Gland
- * Islets, Pancreatic
- * Spinal Cord, Thoracic
- * Trachea

MISSING

- * Mammary Gland

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Large, Rectum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
 - Necrosis Moderate
 - Thrombus Mild
 - Pheochromocytoma Benign
- * Adrenal Medulla
 - [Pheochromocytoma Benign TGLs = 3-7]
- * Bone
 - Fibrous Osteodystrophy Minimal
- * Bone Marrow
 - Hemorrhage Mild
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Epididymis
 - Exfoliated Germ Cell Moderate
 - Hypospermia Mild
- * Eye
 - Antr Chamber Inflammation Acute, Mild
- * Heart
 - Cardiomyopathy Moderate
- * Kidney
 - Nephropathy Chronicprogr, Marked
 - [Nephropathy TGLs = 4-13]
- * Liver
 - Bile Duct Hyperplasia Minimal
 - Hepatocyte Necrosis Minimal
- * Lung
 - Hemorrhage Moderate
 - Inflammation Chronic, Mild
 - [Hemorrhage TGLs = 7-10]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1402

TRT#: 3

SEX: Male

DAY ON TEST: 695

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1402

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------------------|----------------|-------------------------------|--------------------------|
| [Inflammation TGLs = 7-10] | | | |
| Lymph Node | Mediastinal | Erythrophagocytosis | Moderate |
| [Erythrophagocytosis TGLs = 6-6] | | | |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Mild |
| Mesentery | Artery | Inflammation | Chronic Active, Moderate |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| | Respirat Epith | Hyperplasia | Minimal |
| * Pancreas | | Adenoma | |
| | Acinus | Carcinoma | |
| | Artery | Hyperplasia | Marked |
| | | Inflammation | Chronic Active, Moderate |
| [Adenoma TGLs = 1-14] | | | |
| [Carcinoma TGLs = 1-6] | | | |
| [Hyperplasia TGLs = 1-6] | | | |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Mild |
| [Inflammation TGLs = 9-16] | | | |
| * Prostate | Epithelium | Hyperplasia | Mild |
| * Salivary Glands | Parotid GI | Atrophy | Marked |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| Skeletal Muscle | | Degeneration | Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Marked |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1402

TRT#: 3

SEX: Male

DAY ON TEST: 695

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1402

ORGAN AND ACCOUNTABLE SITE STATUS

[Atrophy TGLs = 5-12]

* Testis

Germ Cell
Artery

Degeneration
Inflammation

Mild
Chronic Active, Mild

[Degeneration TGLs = 10-16A]

* Thymus

Trigeminal Ganglion

Atrophy
Degeneration

Marked
Minimal

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

CONTRIBUTORY CAUSE OF DEATH - Lung Hemorrhage

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Animal Note: TGL 8 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1403

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1403

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lung | * Lymph Node, Mesenteric |
| * Mammary Gland | * Pituitary Gland | * Salivary Glands | Skeletal Muscle |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|--|--------------|--|----------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| * Adren Medulla | | | |
| Note: One of pair available for evaluation. | | | |
| * Epididymis | | Exfoliated Germ Cell Mesothelioma Malignant | Minimal |
| * Heart | Ventricl Rgt | Cardiomyopathy Cardiomyopathy | Minimal Mild |
| * Islets, Pancreatic | | Adenoma | |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| [Nephropathy TGLs = 6,7,14-13,8-21] | | | |
| * Liver | Periductal | Cholangiofibrosis Mixed Cell Focus | Minimal |
| Note: Intestinal metaplasia of bile ducts within region of fibrosis. | | | |
| Lymph Node | Renal | Erythrophagocytosis | Moderate |
| | Iliac | Erythrophagocytosis | Minimal |
| | Renal | Hyperplasia | Lymphocyte, Minimal |
| | Iliac | Infiltration Cellular | Histiocyte, Mild |
| [Erythrophagocytosis TGLs = 12-20] | | | |
| [Hyperplasia TGLs = 11-20] | | | |
| [Infiltration Cellular TGLs = 13-21] | | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1403

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1403

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|---|---|
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia Hyperplasia Proliferation | Moderate Lymphocyte, Mild Plasma Cell, Mild |
| Mesentery | Artery | Inflammation | Chronic Active, Marked |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Adenoma | Moderate |
| | Artery | Hyperplasia Inflammation | Chronic Active, Mild |
| | [Adenoma TGLs = 9-6] | | |
| | [Hyperplasia TGLs = 9-6] | | |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Preputial Gland | Duct | Dilation Inflammation | Minimal Chronic Active, Mild |
| | [Dilation TGLs = 2-16] | | |
| * Prostate | | Decreased Secretory Fluid | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | [Decreased Secretory Fluid TGLs = 5-16] | | |
| * Skin | | Cyst Epithelial Inclusion | |
| | Note: Minimal hyperplasia of epithelium lining inclusion cyst. | | |
| | [Cyst Epithelial Inclusion TGLs = 1-20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis Pigment | Minimal Mild |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation Mesothelioma Malignant | Chronic Active, Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1403

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1403

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Mild

Animal Note: TGLs 3,4,10 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1405

TRT#: 3

SEX: Male

DAY ON TEST: 517

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1405

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Harderian Gland
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Seminal Vesicle
- * Spinal Cord, Thoracic
- * Testis
- * Urinary Bladder
- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Pituitary Gland
- Skeletal Muscle
- * Spleen
- * Thymus
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Prostate
- * Skin
- * Stomach, Forestomach
- * Trachea
- * Bone Marrow
- * Eye
- * Intestine Small, Duodenum
- * Mammary Gland
- * Salivary Glands
- * Spinal Cord, Cervical
- * Stomach, Glandular
- Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Ileum

OBSERVATIONS

- * Adrenal Cortex
- * Heart
- * Kidney
- * Liver
- * Lung
- [Congestion TGLs = 1-10]
- * Lymph Node, Mandibular
- * Nerve Trigeminal
- * Nose
- * Pancreas
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Preputial Gland
- * Spinal Cord, Lumbar
- * Thyroid Gland
- Ventricl Rgt
- Alveolus
- Olfactory Epi
- Acinus
- Nerve
- Bilateral, C Cell
- Hyperplasia
- Necrosis
- Cardiomyopathy
- Cardiomyopathy
- Nephropathy
- Mixed Cell Focus
- Congestion
- Infiltration Cellular
- Hyperplasia
- Degeneration
- Accumulation, Hyaline Droplet
- Hyperplasia
- Degeneration
- Degeneration
- Inflammation
- Degeneration
- Adenoma
- Mild
- Mild
- Minimal
- Minimal
- Chronicprogr, Mild
- Moderate
- Histiocyte, Minimal
- Lymphocyte, Mild
- Mild
- Mild
- Mild
- Mild
- Mild
- Mild
- Chronic Active, Minimal
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1405

TRT#: 3

SEX: Male

DAY ON TEST: 517

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1405

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1407

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1407

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Aorta | * Bone | * Bone Marrow | * Esophagus |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lung |
| * Lymph Node, Mesenteric | * Parathyroid Gland | * Preputial Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|--------------------------|--|-------------------------------|----------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Mild |
| | | Pheochromocytoma Benign | |
| | [Pheochromocytoma Benign TGLs = 3-7] | | |
| * Brain | | Compression | Minimal |
| | [Compression TGLs = 7-2] | | |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| * Eye | Cornea, Epithelium | Hyperplasia | Minimal |
| | Cornea | Inflammation | Acute, Minimal |
| | Cornea | Neovascularization | Mild |
| * Heart | | Cardiomyopathy | Mild |
| * Islets, Pancreatic | | Carcinoma | |
| | [Carcinoma TGLs = 2-6] | | |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 4,5-13] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Mild |
| | [Dilation TGLs = 1-9] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1407

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1407

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------------|------------------------------|--------------------------|
| * Pancreas | Respirat Epith | Hyperplasia | Mild |
| | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| | [Hyperplasia TGLs = 2-6,14] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 6-4] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1408

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1408

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric | * Pancreas |
| * Parathyroid Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Trachea | * Urinary Bladder | |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|--|---------------|--|---|
| * Adrenal Medulla | | Hyperplasia Pheochromocytoma Benign | Minimal |
| * Eye | Retina | Atrophy | Minimal |
| * Harderian Gland | | Inflammation | Chronic, Minimal |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | | Lipoma Nephropathy | Chronicprogr, Marked |
| [Lipoma TGLs = 3-13] | | | |
| * Liver | Bile Duct | Hyperplasia Mixed Cell Focus | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia Proliferation | Lymphocyte, Minimal Plasma Cell, Minimal |
| * Mammary Gland | | Fibroadenoma | |
| [Fibroadenoma TGLs = 1-20] | | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1408

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1408

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|------------------------------|----------------------------------|
| * Pituitary Gland [Adenoma TGLs = 5-4] | Pars Distalis | Adenoma | |
| * Preputial Gland [Dilation TGLs = 2-16] | Duct | Dilation Inflammation | Moderate Chronic Active, Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1409

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1409

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Mammary Gland |
| * Parathyroid Gland | * Seminal Vesicle | * Stomach, Glandular | * Thymus |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|--------------------------|--|-------------------------------|----------------------|
| * Brain | Hypothalamus | Cyst | |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Intestine Large, Cecum | Artery | Inflammation | Chronic Active, Mild |
| * Intestine Large, Colon | Artery | Inflammation | Chronic Active, Mild |
| * Kidney | Renal Tubule | Adenoma | |
| | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 3,4,7-13] | | |
| * Liver | | Hepatocellular Adenoma | |
| | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| | [Hepatocellular Adenoma TGLs = 2-12] | | |
| * Lung | Epithlm Alvlus | Hyperplasia | Marked |
| Lymph Node | Lymph Sinus, Renal | Ectasia | Mild |
| | Renal | Erythrophagocytosis | Mild |
| | [Ectasia TGLs = 6-21] | | |
| | [Erythrophagocytosis TGLs = 5-21] | | |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1409

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1409

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------------------|----------------|------------------------------|--------------------------|
| | | Foreign Body | |
| | | Hyperplasia | Lymphocyte, Mild |
| | Respirat Epith | Hyperplasia | Minimal |
| | | Inflammation | Suppurative, Minimal |
| * Pancreas | Artery | Inflammation | Chronic Active, Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Cyst | |
| * Preputial Gland | Duct | Dilation | Minimal |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | | Keratoacanthoma | |
| [Keratoacanthoma TGLs = 1-20] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Stomach, Forestomach | Artery | Inflammation | Chronic Active, Moderate |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1410

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1410

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Esophagus | * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Lymph Node, Mesenteric | * Mammary Gland | * Nerve Trigeminal | * Prostate |
| * Salivary Glands | Skeletal Muscle | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | Trigeminal Ganglion | | |

MISSING

- * Parathyroid Gland

OBSERVATIONS

- | | | | |
|---------------------------------------|---|-------------------------------|----------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Mild |
| * Epididymis | Tail | Developmental Malformation | |
| | | Hypospermia | Marked |
| Note: Tail of epididymis not present. | | | |
| Note: One epididymis normal. | | | |
| | [Developmental Malformation TGLs = 3-16A] | | |
| * Eye | Retina | Atrophy | Minimal |
| | Lens | Cataract | Moderate |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Carcinoma | |
| | [Carcinoma TGLs = 7-6] | | |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Moderate |
| | | Proliferation | Plasma Cell, Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | | Adenoma | |
| | Acinus | Hyperplasia | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1410

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1410

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|------------------------------|----------------------|
| [Adenoma TGLs = 7-6] | | | |
| [Hyperplasia TGLs = 7-6] | | | |
| Penis | | Concretion | Marked |
| [Concretion TGLs = 1-20] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Cyst | |
| * Preputial Gland | Duct | Dilation | Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| [Decreased Secretory Fluid TGLs = 5-16] | | | |
| * Skin | | Cyst Epithelial Inclusion | |
| | Prepuce | Hyperplasia | Moderate |
| | Prepuce | Ulcer | Marked |
| Note: Minimal hyperplasia of epithelium lining inclusion cyst. | | | |
| [Cyst Epithelial Inclusion TGLs = 8-21] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Marked |
| | | Edema | Mild |
| Note: One testis is normal. | | | |
| [Degeneration TGLs = 2-16A] | | | |
| * Thymus | | Atrophy | Mild |
| | | Ectopic Parathyroid Gland | |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Urinary Bladder | Urothelium | Hyperplasia | Mild |
| | | Inflammation | Chronic Active, Mild |

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1411

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1411

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Skin
- * Thyroid Gland
- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Spinal Cord, Cervical
- * Trachea
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Prostate
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- [Pheochromocytoma Malignant TGLs = 6,7-7]
- * Bone
- * Brain
- * Epididymis
- Artery
- [Hypospermia TGLs = 3-16A]
- * Eye
- * Heart
- * Kidney
- [Cyst TGLs = 11,12,13-13,20,21]
- [Nephropathy TGLs = 10,14-13]
- * Liver
- Lymph Node
- Bile Duct
- Lymph Sinus, Renal Iliac, Lymph Sinus
- Lumbar, Lymph Sinus
- Renal
- Lumbar
- Vacuolation, Cytoplasmic
- Pheochromocytoma Malignant
- Fibrous Osteodystrophy
- Necrosis
- Exfoliated Germ Cell
- Hypospermia
- Inflammation
- Mesothelioma Malignant
- Atrophy
- Cardiomyopathy
- Cyst
- Nephropathy
- Hyperplasia
- Mixed Cell Focus
- Ectasia
- Ectasia
- Ectasia
- Erythrophagocytosis
- Erythrophagocytosis
- Mild
- Minimal
- Minimal
- Mild
- Mild
- Moderate
- Mild
- Chronic Active, Moderate
- Chronicprogr, Marked
- Minimal
- Mild
- Minimal
- Mild
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1411

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1411

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|------------------------|
| | Mediastinal | Erythrophagocytosis | Mild |
| | [Ectasia TGLs = 8-20] | | |
| | [Ectasia TGLs = 15-21] | | |
| | [Ectasia TGLs = 19-22] | | |
| | [Erythrophagocytosis TGLs = 9-20] | | |
| | [Erythrophagocytosis TGLs = 19-22] | | |
| | [Erythrophagocytosis TGLs = 21,22-23] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | | Adenoma | Multiple |
| | Acinus | Hyperplasia | Mild |
| | [Adenoma TGLs = 18-6,14] | | |
| | [Hyperplasia TGLs = 18-6,14] | | |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Cyst | |
| * Preputial Gland | Duct | Dilation | Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| | [Decreased Secretory Fluid TGLs = 4-16] | | |
| | Skeletal Muscle | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Pigment | Minimal |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Marked |
| | [Degeneration TGLs = 2-16A] | | |
| * Thymus | | Atrophy | Mild |
| | [Atrophy TGLs = 20-6] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1411

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1411

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGLs 5,16,17 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1412

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1412

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Mammary Gland | * Preputial Gland | * Prostate |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Stomach, Forestomach | * Stomach, Glandular | * Testis | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|----------------------------|--------------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| * Adrenal Medulla | | Hyperplasia | Mild |
| [Hyperplasia TGLs = 1-7] | | | |
| Coagulating Gland | | Inflammation | Chronic Active, Mild |
| * Eye | Retina | Atrophy | Minimal |
| * Harderian Gland | | Atrophy | Minimal |
| | | Inflammation | Granulomatous, Minimal |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Liver | | Mixed Cell Focus | |
| * Lung | | Alveolar/Bronchiolar Adenoma | |
| | | Foreign Body | |
| | | Inflammation | Granulomatous, Mild |
| Lymph Node | Iliac, Lymph Sinus | Ectasia | Minimal |
| [Ectasia TGLs = 6-20] | | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Lymph Node, Mesenteric | Lymph Sinus | Ectasia | Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | | Adenoma | Multiple |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1412

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1412

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLs = 5-6]

| | | | |
|-----------------------------|---------------|------------------------------|-------------------------|
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Seminal Vesicle | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| * Thymus | | Atrophy | Mild |

Animal Note: TGLs 2,3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1413

TRT#: 3

SEX: Male

DAY ON TEST: 491

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1413

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGLs 1,4 = NCL (No Corresponding Lesion)

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1414

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1414

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Bone Marrow |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mandibular |
| * Mammary Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

| | | | |
|-----------------------------|--|-------------------------------|---------------------|
| * Adrenal Medulla | | Pheochromocytoma Benign | |
| * Brain | | Mineral | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | | Hepatocellular Adenoma | |
| | | Mixed Cell Focus | |
| | [Hepatocellular Adenoma TGLs = 4-20] | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 10-10] | | |
| Lymph Node | Mediastinal | Erythrophagocytosis | Mild |
| | [Erythrophagocytosis TGLs = 7,8-20] | | |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Moderate |
| | [Hyperplasia TGLs = 6-6,14] | | |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Intermed | Hyperplasia | Mild |
| | Pars Distalis | Hyperplasia | Minimal |
| * Preputial Gland | Duct | Dilation | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1414

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1414

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|--------|------------------------------|----------------------|
| [Dilation TGLs = 1,2-16] | | Inflammation | Chronic Active, Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Mild |

Animal Note: TGLs 3,5,9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1415

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1415

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Seminal Vesicle
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Prostate
- * Skin
- * Thyroid Gland
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Mammary Gland
- * Salivary Glands
- * Spinal Cord, Cervical
- * Trachea

OBSERVATIONS

- * Adrenal Cortex Hyperplasia Minimal
- * Eye Hypertrophy Minimal
 - Cornea, Epithelium Hyperplasia Minimal
 - Cornea Inflammation Acute, Minimal
 - Cornea Neovascularization Minimal
- * Heart Cardiomyopathy Mild
 - Ventricl Rgt Cardiomyopathy Minimal
 - Adenoma
- * Islets, Pancreatic Nephropathy Chronicprogr, Marked
 - [Adenoma TGLs = 3-6]
- * Kidney Hyperplasia Minimal
- * Liver Mixed Cell Focus
 - Bile Duct Alveolar/Bronchiolar Adenoma
- * Lung Hyperplasia Lymphocyte, Mild
- * Lymph Node, Mandibular Proliferation Plasma Cell, Minimal
- * Nose Accumulation, Hyaline Droplet Minimal
- * Pancreas Hyperplasia Moderate
 - [Hyperplasia TGLs = 3-6]
- * Peripheral Nerve, Sciatic Degeneration Moderate
- * Peripheral Nerve, Tibial Degeneration Moderate
- * Pituitary Gland Hyperplasia Minimal
 - Pars Intermed

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1415

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1415

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|--------|------------------------------|-----------------------------------|
| * Preputial Gland | Duct | Dilation Inflammation | Marked Chronic Active, Minimal |
| [Dilation TGLs = 1,2-16] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1416

TRT#: 3

SEX: Male

DAY ON TEST: 704

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1416

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Islets, Pancreatic
- * Prostate
- * Testis
- * Aorta
- * Harderian Gland
- * Mammary Gland
- Skeletal Muscle
- * Thyroid Gland
- * Bone
- * Intestine Large, Colon
- * Pancreas
- * Spinal Cord, Cervical
- * Trachea
- * Esophagus
- * Intestine Large, Rectum
- * Pituitary Gland
- * Stomach, Glandular

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Urinary Bladder
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
 - * Bone Marrow
 - * Brain
 - * Epididymis
 - * Heart
 - * Kidney
 - [Nephropathy TGLs = 3-13]
 - * Liver
 - * Lung
 - [Lymphoma Malignant TGLs = 6-10]
 - Lymph Node
 - Pancreatic
 - Mediastinal
 - [Lymphoma Malignant TGLs = 11-6]
 - * Lymph Node, Mandibular
 - [Lymphoma Malignant TGLs = 1-9]
 - * Lymph Node, Mesenteric
 - [Lymphoma Malignant TGLs = 14-15]
 - * Nerve Trigeminal
 - * Nose
 - Olfactory Epi
- Hyperplasia
- Lymphoma Malignant
- Lymphoma Malignant
- Mineral
- Exfoliated Germ Cell
- Cardiomyopathy
- Nephropathy
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Degeneration
- Accumulation, Hyaline Droplet
- Inflammation
- Minimal
- Minimal
- Minimal
- Chronicprogr, Moderate
- Moderate
- Mild
- Suppurative, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1416

TRT#: 3

SEX: Male

DAY ON TEST: 704

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1416

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|---------------------------|-------------------------|
| * Parathyroid Gland | | Hyperplasia | Focal, Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | [Decreased Secretory Fluid TGLs = 5-16] | | |
| * Skin | | Cyst Epithelial Inclusion | |
| | [Cyst Epithelial Inclusion TGLs = 12-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 2-12] | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Mild |
| | | Ulcer | Minimal |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| | | Ectopic Parathyroid Gland | |
| | | Lymphoma Malignant | |
| | [Atrophy TGLs = 7-6] | | |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Spleen Lymphoma Malignant

Animal Note: TGLs 8,13 = NCL (No Corresponding Lesion)

Animal Note: TGLs 4,9,10 = NST (No Section Taken)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1417

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1417

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Prostate
- * Stomach, Glandular
- * Esophagus
- * Intestine Small, Duodenum
- * Lung
- * Skin
- * Trachea
- * Harderian Gland
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia Mild
 - Hypertrophy Minimal
- * Adrenal Medulla
 - Hyperplasia Moderate
 - Pheochromocytoma Benign
- [Pheochromocytoma Benign TGLs = 4-7]
- * Bone Marrow
 - Hypercellularity Minimal
- * Brain
 - Hypothalamus
 - Cyst
- * Epididymis
 - Exfoliated Germ Cell Mild
 - Hypospermia Mild
- [Hypospermia TGLs = 8-16A]
- * Eye
 - Cornea, Epithelium Hyperplasia Moderate
 - Cornea Inflammation Acute, Mild
 - Cornea Neovascularization Minimal
- [Hyperplasia TGLs = 2-5]
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy Mild
 - Cardiomyopathy Minimal
- * Intestine Large, Cecum
 - Artery Inflammation Chronic Active, Mild
- * Kidney
 - Lipoma
 - Nephropathy Chronicprogr, Marked
- [Nephropathy TGLs = 5,6-13]
- * Liver
 - Bile Duct Hyperplasia Minimal
 - Mixed Cell Focus
- * Lymph Node, Mandibular
 - Lymph Sinus Ectasia Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1417

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1417

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------------|-------------------------------|--------------------------|
| * Nerve Trigeminal | | Hyperplasia | Lymphocyte, Mild |
| * Nose | Olfactory Epi | Proliferation | Plasma Cell, Mild |
| * Pancreas | | Degeneration | Mild |
| | | Accumulation, Hyaline Droplet | Mild |
| | Acinus | Adenoma | |
| | Artery | Hyperplasia | Marked |
| | | Inflammation | Chronic Active, Mild |
| | [Adenoma TGLs = 9-6] | | |
| | [Hyperplasia TGLs = 9-6] | | |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| | [Hyperplasia TGLs = 11-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 10-4] | | |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 3-16] | | |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Minimal |
| | Skeletal Muscle | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Moderate |
| | Artery | Inflammation | Chronic Active, Marked |
| | [Degeneration TGLs = 7-16A] | | |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1417

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1417

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

Follicle

Cyst

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1419

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1419

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Seminal Vesicle
- * Testis
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- Skeletal Muscle
- * Trachea
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Stomach, Forestomach
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - [Atrophy TGLs = 3-7]
 - [Carcinoma TGLs = 4-7]
- * Heart
- * Kidney
- * Liver
 - [Cyst TGLs = 2-21]
- * Lung
 - [Infiltration Cellular TGLs = 6-10]
- * Lymph Node, Mandibular
- * Nerve Trigeminal
- * Nose
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
 - [Adenoma TGLs = 7-4]
- * Preputial Gland
- * Prostate
- Atrophy
- Carcinoma
- Cardiomyopathy
- Nephropathy
- Cyst
- Mixed Cell Focus
- Infiltration Cellular
- Hyperplasia
- Proliferation
- Degeneration
- Accumulation, Hyaline Droplet
- Degeneration
- Degeneration
- Adenoma
- Dilation
- Hyperplasia
- Marked
- Minimal
- Chronicprogr, Mild
- Histiocyte, Minimal
- Lymphocyte, Mild
- Plasma Cell, Mild
- Moderate
- Minimal
- Moderate
- Moderate
- Mild
- Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1419

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1419

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------------|------------------------------|----------|
| * Skin | Subcut Tiss | Fibroma | |
| [Fibroma TGLs = 1-20] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Adenoma | |

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1421

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1421

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Mammary Gland | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Thyroid Gland | * Trachea | Trigeminal Ganglion |
| * Urinary Bladder | | | |

MISSING

- * Parathyroid Gland

OBSERVATIONS

- | | | | |
|--------------------------|-----------------------------|--|------------------------|
| * Adrenal Cortex | | Accessory Adrenal Cortical Nodule Carcinoma | |
| | [Carcinoma TGLs = 3-7] | | |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lung | | Inflammation | Granulomatous, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | | Foreign Body | |
| | | Inflammation | Suppurative, Minimal |
| | Olfactory Epi | Metaplasia | Respiratory, Minimal |
| * Pancreas | Acinus | Adenoma | |
| | | Hyperplasia | Moderate |
| | [Adenoma TGLs = 4-6] | | |
| | [Hyperplasia TGLs = 4-14] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1421

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1421

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|--------------------------|------------------------------|-------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| Note: Longitudinal section available for evaluation. | | | |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| | [Dilation TGLs = 2-16] | | |
| * Prostate | Epithelium | Hyperplasia | Moderate |
| * Skin | Subcut Tiss | Lipoma | |
| | [Lipoma TGLs = 1-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1422

TRT#: 3

SEX: Male

DAY ON TEST: 608

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1422

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Aorta | * Bone | * Bone Marrow | * Epididymis |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung | * Lymph Node, Mesenteric |
| * Mammary Gland | * Pancreas | * Parathyroid Gland | * Prostate |
| * Salivary Glands | * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach |
| * Stomach, Glandular | * Testis | * Thyroid Gland | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|---|---------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Mild |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Brain | | Compression | Moderate |
| | | Necrosis | Mild |
| Note: Olfactory bulbs unavailable for evaluation. [Compression TGLs = 3-1,2] | | | |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 1-4] | | | |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1422

TRT#: 3

SEX: Male

DAY ON TEST: 608

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1422

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------------|------------------------------|--------------|----------------------|
| * Seminal Vesicle | | Inflammation | Chronic Active, Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | | Inflammation | Suppurative, Marked |
| Note: Consistent with an abscess. | | | |
| | [Inflammation TGLs = 2-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1423

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1423

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Epididymis
- * Esophagus
- * Eye
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Parathyroid Gland
- * Salivary Glands
- * Seminal Vesicle
- * Skeletal Muscle
- * Stomach, Forestomach
- * Stomach, Glandular
- * Testis
- * Trachea
- Trigeminal Ganglion

MISSING

- * Thymus

OBSERVATIONS

- | | | | |
|------------------------------|------------------------|-----------------------|---------------------|
| * Brain | Pineal Gland | Mineral | Minimal |
| * Harderian Gland | | Degeneration | Cystic, Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Carcinoma | |
| * Islets, Pancreatic | | | |
| [Carcinoma TGLs = 14-6] | | | |
| * Kidney | Pelvis, Urothelium | Hyperplasia | Minimal |
| | | Nephropathy | Chronicprogr, Mild |
| * Liver | | Clear Cell Focus | |
| | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| Lymph Node | Lymph Sinus, Popliteal | Ectasia | Mild |
| [Ectasia TGLs = 9-20] | | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| [Proliferation TGLs = 6-9] | | | |
| Mesentery | | Necrosis | Mild |
| [Necrosis TGLs = 13-21] | | | |
| * Nerve Trigeminal | | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1423

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1423

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|-------------------------------|-------------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Marked |
| [Hyperplasia TGLs = 14-6] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Cyst | |
| [Cyst TGLs = 11-4] | | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| [Dilation TGLs = 2,4-16] | | | |
| [Inflammation TGLs = 3-16] | | | |
| * Prostate | | Inflammation | Chronic Active, Mild |
| * Skin | Subcut Tiss | Cyst Epithelial Inclusion | |
| | | Fibroma | |
| Note: Minimal hyperplasia of epithelium lining inclusion cyst. | | | |
| [Cyst Epithelial Inclusion TGLs = 1-20] | | | |
| [Fibroma TGLs = 8-22] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thyroid Gland | C Cell | Adenoma | |
| * Urinary Bladder | Urothelium | Hyperplasia | Minimal |
| [Hyperplasia TGLs = 7-13] | | | |

Animal Note: TGLs 5,10,12 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1424

TRT#: 3

SEX: Male

DAY ON TEST: 550

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1424

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nerve Trigeminal | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Prostate | * Salivary Glands | Skeletal Muscle |
| * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

INSUFFICIENT TISSUE

- * Preputial Gland

OBSERVATIONS

- | | | | |
|-----------------------------|---|-------------------------------|----------------------|
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Bone Marrow | | Hypercellularity | Mild |
| * Epididymis | | Hypospermia | Marked |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| | [Decreased Secretory Fluid TGLs = 2-16] | | |
| * Skin | Subcut Tiss | Myxosarcoma | |
| | [Myxosarcoma TGLs = 1-20] | | |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Testis | Germ Cell | Degeneration | Marked |
| | [Degeneration TGLs = 4-16A] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1424

TRT#: 3

SEX: Male

DAY ON TEST: 550

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1424

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Minimal

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Myxosarcoma

Animal Note: TGL 3 = NCL (No Corresponding Lesion)--Preputial glands not available for evaluation

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1425

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1425

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Pituitary Gland
- * Skin
- * Testis
- * Urinary Bladder
- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Cervical
- * Thymus
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Forestomach
- * Trachea
- * Bone Marrow
- * Eye
- * Intestine Small, Duodenum
- * Lung
- * Parathyroid Gland
- Skeletal Muscle
- * Stomach, Glandular
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Harderian Gland
- * Heart
- * Kidney
- * Liver
- * Nerve Trigeminal
- * Nose
- * Pancreas
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- Note: Pars distalis available for evaluation.
- * Preputial Gland
- * Prostate
- * Spinal Cord, Lumbar
- * Spinal Cord, Thoracic
- * Spleen
- * Thyroid Gland
- Bile Duct
- Olfactory Epi Acinus
- Duct
- Nerve
- C Cell
- Hyperplasia
- Degeneration
- Cardiomyopathy
- Nephropathy
- Eosinophilic Focus
- Hyperplasia
- Mixed Cell Focus
- Degeneration
- Accumulation, Hyaline Droplet
- Hyperplasia
- Degeneration
- Degeneration
- Dilation
- Inflammation
- Degeneration
- Degeneration
- Extramedullary Hematopoiesis
- Hyperplasia
- Minimal
- Cystic, Minimal
- Minimal
- Chronicprogr, Minimal
- Minimal
- Mild
- Minimal
- Minimal
- Moderate
- Moderate
- Moderate
- Moderate
- Mild
- Minimal
- Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1425

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1425

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1426

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1426

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Seminal Vesicle
- * Stomach, Forestomach
- * Trachea
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Lung
- * Parathyroid Gland
- Skeletal Muscle
- * Stomach, Glandular
- Trigeminal Ganglion
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Prostate
- * Skin
- * Testis
- * Urinary Bladder
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Salivary Glands
- * Spinal Cord, Cervical
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - [Degeneration TGLs = 2-7]
- * Brain
 - [Degeneration TGLs = 2-7]
- * Eye
- * Heart
- * Islets, Pancreatic
 - [Carcinoma TGLs = 3-6]
- * Kidney
- * Liver
- * Lymph Node, Mandibular
- * Nerve Trigeminal
- * Nose
 - [Degeneration TGLs = 2-7]
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
 - [Adenoma TGLs = 4-4]
- * Preputial Gland
 - [Dilation TGLs = 1-16]

- Degeneration
- Hypertrophy
- Vacuolation, Cytoplasmic
- Atrophy
- Cardiomyopathy
- Carcinoma
- Nephropathy
- Mixed Cell Focus
- Hyperplasia
- Proliferation
- Degeneration
- Accumulation, Hyaline Droplet
- Degeneration
- Degeneration
- Adenoma
- Dilation
- Inflammation
- Cystic, Minimal
- Mild
- Minimal
- Minimal
- Minimal
- Chronicprogr, Moderate
- Lymphocyte, Mild
- Plasma Cell, Minimal
- Minimal
- Mild
- Mild
- Mild
- Mild
- Mild
- Chronic Active, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1426

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1426

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------|------------------------------|----------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Moderate |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1427

TRT#: 3

SEX: Male

DAY ON TEST: 701

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1427

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Stomach, Glandular
- Trigeminal Ganglion
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Testis
- * Urinary Bladder
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Thyroid Gland
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Skin
- * Trachea

OBSERVATIONS

- * Adrenal Medulla
- * Brain
- [Compression TGLs = 6-2]
- * Heart
- Ventricl Rgt
- * Kidney
- * Liver
- Periductal
- Hepatocyte
- Note: Intestinal metaplasia of bile ducts within region of fibrosis.
- * Lung
- Alveolus
- [Congestion TGLs = 4-10]
- [Infiltration Cellular TGLs = 5-10,20]
- * Mammary Gland
- Duct
- * Nose
- Olfactory Epi
- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- Pars Distalis
- [Adenoma TGLs = 7-4]
- * Preputial Gland
- Duct
- Hyperplasia
- Compression
- Cardiomyopathy
- Cardiomyopathy
- Nephropathy
- Cholangiofibrosis
- Vacuolation, Cytoplasmic
- Congestion
- Infiltration Cellular
- Dilation
- Accumulation, Hyaline Droplet
- Hyperplasia
- Degeneration
- Degeneration
- Adenoma
- Dilation
- Inflammation
- Minimal
- Moderate
- Minimal
- Minimal
- Chronicprogr, Moderate
- Mild
- Moderate
- Minimal
- Histiocyte, Minimal
- Mild
- Mild
- Mild
- Mild
- Mild
- Mild
- Mild
- Mild
- Chronic Active, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1427

TRT#: 3

SEX: Male

DAY ON TEST: 701

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1427

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|------------|---------------------------|--------------------------|
| * Prostate | Epithelium | Hyperplasia | Minimal |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Minimal |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Pigment | Moderate |
| [Atrophy TGLs = 3-12] | | | |
| * Stomach, Forestomach | Epithelium | Edema | Mild |
| | | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Moderate |
| | | Ulcer | Marked |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 1,2,8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1428

TRT#: 3

SEX: Male

DAY ON TEST: 693

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1428

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Liver
- Skeletal Muscle
- * Urinary Bladder
- * Bone
- * Esophagus
- * Lymph Node, Mesenteric
- * Stomach, Forestomach
- * Bone Marrow
- * Intestine Large, Rectum
- * Prostate
- * Thyroid Gland
- * Brain
- * Intestine Small, Duodenum
- * Seminal Vesicle
- * Trachea

MISSING

- * Mammary Gland

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Jejunum
- * Intestine Large, Cecum
- * Islets, Pancreatic
- * Intestine Large, Colon
- * Pancreas
- * Intestine Small, Ileum
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Harderian Gland
- * Heart
- * Kidney
- * Lung
- [Congestion TGLs = 8-10]
- * Lymph Node, Mandibular
- * Nerve Trigeminal
- * Nose
- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Preputial Gland
- Hyperplasia
- Hyperplasia
- Atrophy
- Cardiomyopathy
- Ventricl Rgt
- Artery, Pericardium
- Pigment
- Nephropathy
- Congestion
- Proliferation
- Degeneration
- Accumulation, Hyaline Droplet
- Hyperplasia
- Degeneration
- Degeneration
- Cyst
- Dilation
- Inflammation
- Mild
- Mild
- Minimal
- Mild
- Minimal
- Minimal
- Minimal
- Chronicprogr, Marked
- Mild
- Plasma Cell, Mild
- Mild
- Minimal
- Minimal
- Mild
- Mild
- Mild
- Mild
- Chronic Active, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1428

TRT#: 3

SEX: Male

DAY ON TEST: 693

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1428

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------------|--------------|--------------------------|
| * Salivary Glands | Artery | Inflammation | Chronic Active, Moderate |
| * Skin | Subcut Tiss | Lipoma | |
| [Lipoma TGLs = 9-9.1] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Pigment | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Minimal |
| * Thymus | | Atrophy | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 1,2,3,4,5,6 = NCL (No Corresponding Lesion)

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1429

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1429

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Aorta | * Bone | * Bone Marrow | * Epididymis |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Lymph Node, Mesenteric | * Parathyroid Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Spinal Cord, Cervical |
| * Stomach, Forestomach | * Stomach, Glandular | * Testis | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

MISSING

- * Mammary Gland

OBSERVATIONS

- | | | | |
|--|---------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| [Hypertrophy TGLs = 9-7] | | | |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Brain | | Compression | Minimal |
| * Heart | | Cardiomyopathy | Mild |
| * Islets, Pancreatic | | Adenoma | |
| [Adenoma TGLs = 3-6] | | | |
| * Kidney | Renal Tubule | Cyst | |
| [Nephropathy TGLs = 6,7,8-13,21] | | Nephropathy | Chronicprogr, Marked |
| * Liver | Bile Duct | Cyst | |
| [Cyst TGLs = 5-21] | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| Note: Intraluminal accumulation resulting in malformation of nasal turbinates. | | | |
| * Pancreas | Acinus | Hyperplasia | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1429

TRT#: 3

SEX: Male

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1429

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|-------------------------|
| [Hyperplasia TGLs = 3-6] | Artery | Inflammation | Chronic Active, Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 10-4] | | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| [Dilation TGLs = 1-16] | | | |
| * Skin | Subcut Tiss | Lipoma | |
| [Lipoma TGLs = 2-20] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Moderate |

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1430

TRT#: 3

SEX: Male

DAY ON TEST: 719

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1430

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Esophagus
- * Eye
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Lung
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Parathyroid Gland
- * Prostate
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Trachea
- * Urinary Bladder

OBSERVATIONS

- * Brain
 - Compression
 - Schwannoma Malignant
 - Minimal
 - Metastatic (Tissue Nos)
- [Compression TGLs = 9-2]
- * Epididymis
 - Exfoliated Germ Cell
 - Mild
- * Harderian Gland
 - Schwannoma Malignant
 - Metastatic (Tissue Nos)
- * Heart
 - Cardiomyopathy
 - Mild
- * Kidney
 - Nephropathy
 - Chronicprogr, Marked
- [Nephropathy TGLs = 12-13]
- * Liver
 - Bile Duct
 - Hyperplasia
 - Minimal
- Lymph Node
 - Lumbar, Lymph Sinus
 - Ectasia
 - Minimal
 - Pancreatic
 - Erythrophagocytosis
 - Moderate
- [Ectasia TGLs = 16-21]
- [Erythrophagocytosis TGLs = 1-6.1]
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Minimal
 - Hyperplasia
 - Lymphocyte, Mild
- [Hyperplasia TGLs = 11-9]
- * Nerve Trigeminal
 - Degeneration
 - Minimal
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Minimal
- * Pancreas
 - Artery
 - Inflammation
 - Chronic Active, Mild
- * Peripheral Nerve, Sciatic
 - Degeneration
 - Mild
- * Peripheral Nerve, Tibial
 - Degeneration
 - Mild
- * Pituitary Gland
 - Schwannoma Malignant
 - Metastatic (Tissue Nos)
- [Schwannoma Malignant TGLs = 6,8-4]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1430

TRT#: 3

SEX: Male

DAY ON TEST: 719

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1430

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|-------------|---------------------------|-------------------------|
| * Preputial Gland [Dilation TGLs = 14-16] | Duct | Dilation | Mild |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| * Seminal Vesicle [Decreased Secretory Fluid TGLs = 10-16] | | Decreased Secretory Fluid | Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin [Lipoma TGLs = 5-20] | Subcut Tiss | Lipoma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Pigment | Mild |
| * Stomach, Forestomach | | Edema | Minimal |
| | | Erosion | Minimal |
| | Epithelium | Hyperplasia | Moderate |
| * Testis | Germ Cell | Degeneration | Mild |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland [Adenoma TGLs = 15-8] | C Cell | Adenoma | |
| Tissue NOS | | Schwannoma Malignant | |
| [Schwannoma Malignant TGLs = 7,13-2,21] | | | |
| Trigeminal Ganglion | | Schwannoma Malignant | Metastatic (Tissue Nos) |

PRIMARY CAUSE OF DEATH - Tissue NOS Schwannoma Malignant

Animal Note: TGLs 3,4 = NCL (No Corresponding Lesion)

Animal Note: TGL 2 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1431

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1431

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Brain |
| * Epididymis | * Esophagus | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Mammary Gland | * Parathyroid Gland |
| * Pituitary Gland | * Prostate | * Seminal Vesicle | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Urinary Bladder |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|-----------------------------|----------------|-------------------------------|-------------------------|
| * Adrenal Medulla | Bilateral | Pheochromocytoma Benign | |
| [Pheochromocytoma Benign | TGLs = 3,4-7] | | |
| * Bone Marrow | | Hypercellularity | Mild |
| * Eye | Cornea | Neovascularization | Minimal |
| * Harderian Gland | | Inflammation | Suppurative, Marked |
| [Inflammation | TGLs = 5-5] | | |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricle Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronic progr, Marked |
| * Liver | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Marked |
| | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| [Ectasia | TGLs = 1-9] | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Artery | Inflammation | Chronic Active, Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1431

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1431

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------------|---------------|------------------------------|-------------------------|
| * Salivary Glands | Artery | Inflammation | Chronic Active, Minimal |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| [Extramedullary Hematopoiesis | TGLs = 2-12] | | |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Minimal |
| * Trachea | Artery | Inflammation | Chronic Active, Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1432

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1432

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------------------------|-------------------------------|--------------------------|
| | [Galactocoele TGLs = 6-20,9] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 10-4] | | |
| * Preputial Gland | | Inflammation | Chronic Active, Marked |
| | [Inflammation TGLs = 3,4-16.1] | | |
| * Prostate | | Inflammation | Chronic Active, Minimal |
| * Skin | Subcut Tiss | Myxosarcoma | |
| | [Myxosarcoma TGLs = 2-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGL 8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1433

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1433

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Intestine Large, Colon
- * Islets, Pancreatic
- Skeletal Muscle
- Trigeminal Ganglion
- * Brain
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- * Stomach, Forestomach
- * Urinary Bladder
- * Esophagus
- * Intestine Small, Duodenum
- * Mammary Gland
- * Stomach, Glandular
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Prostate
- * Trachea

AUTO PRECLUDES DIAG.

- * Intestine Small, Ileum

OBSERVATIONS

- * Adrenal Cortex
 - * Adrenal Medulla
 - [Pheochromocytoma Benign TGLs = 8,9-7]
 - * Bone
 - * Bone Marrow
 - * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
 - * Epididymis
 - [Hypospermia TGLs = 5-16A]
 - * Eye
 - Cornea
 - Cornea
 - * Harderian Gland
 - * Heart
 - Ventricl Rgt
 - [Cardiomyopathy TGLs = 15-11]
 - * Kidney
 - Renal Tubule
 - [Cyst TGLs = 10,11-20,13]
 - [Nephropathy TGLs = 12-13]
 - * Liver
 - Hepatocyte
 - [Vacuolation, Cytoplasmic TGLs = 7-12,20]
- | | | |
|--|--------------------------|----------------------|
| | Adenoma | |
| | Pheochromocytoma Benign | |
| | Fibrous Osteodystrophy | Mild |
| | Hypercellularity | Minimal |
| | Exfoliated Germ Cell | Moderate |
| | Hypospermia | Minimal |
| | Inflammation | Acute, Minimal |
| | Neovascularization | Minimal |
| | Degeneration | Cystic, Minimal |
| | Cardiomyopathy | Mild |
| | Cardiomyopathy | Mild |
| | Cyst | |
| | Nephropathy | Chronicprogr, Marked |
| | Vacuolation, Cytoplasmic | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1433

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1433

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|--------------------------|
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Marked |
| | Interstitium | Inflammation | Chronic Active, Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| Lymph Node | Mediastinal | Erythrophagocytosis | Moderate |
| | [Erythrophagocytosis TGLs = 14-6] | | |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Mild |
| | [Erythrophagocytosis TGLs = 13-15] | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Minimal |
| * Parathyroid Gland | | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 18-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Moderate |
| | [Inflammation TGLs = 3-16] | | |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Mild |
| | Parotid GI | Vacuolation, Cytoplasmic | Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| | [Decreased Secretory Fluid TGLs = 6-16] | | |
| * Skin | | Cyst Epithelial Inclusion | |
| | [Cyst Epithelial Inclusion TGLs = 1-20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Pigment | Minimal |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1433

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1433

ORGAN AND ACCOUNTABLE SITE STATUS

[Degeneration TGLs = 4-16A]

* Thymus

Atrophy

Moderate

Cyst

Ectopic Parathyroid Gland

* Thyroid Gland

C Cell

Hyperplasia

Mild

Animal Note: TGL 2 = NST (No Section Taken)

Animal Note: TGLs 16,17 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1434

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1434

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Small, Duodenum
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Thyroid Gland
- * Bone Marrow
- * Intestine Large, Colon
- * Lymph Node, Mesenteric
- * Trachea
- * Esophagus
- * Intestine Large, Rectum
- * Nerve Trigeminal
- Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Adrenal Medulla
 - Hyperplasia
- * Brain
 - Compression
- * Epididymis
 - [Compression TGLs = 19-2]
 - Exfoliated Germ Cell
 - Hypospermia
- * Harderian Gland
 - [Hypospermia TGLs = 5-16A]
 - Degeneration
- * Heart
 - Cardiomyopathy
- * Islets, Pancreatic
 - Carcinoma
- * Kidney
 - [Carcinoma TGLs = 15-6]
 - Nephropathy
- * Liver
 - [Nephropathy TGLs = 8-13]
 - Hepatocyte
 - Vacuolation, Cytoplasmic
- * Lung
 - [Vacuolation, Cytoplasmic TGLs = 9-12]
 - Alveolus
 - Infiltration Cellular
- Lymph Node
 - [Infiltration Cellular TGLs = 11-10]
 - Iliac, Lymph Sinus
 - Ectasia
 - Lumbar
 - Erythrophagocytosis
 - Lumbar
 - Proliferation
- [Ectasia TGLs = 12-20]
 - Moderate
 - Mild
 - Plasma Cell, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1434

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1434

ORGAN AND ACCOUNTABLE SITE STATUS

[Erythrophagocytosis TGLs = 14-21]

[Proliferation TGLs = 13-21]

| | | | |
|-----------------------------|---|-------------------------------|----------------------|
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Atrophy | Mild |
| | Acinus | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 15-6] | | |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 17,18-4] | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| | [Dilation TGLs = 3-16] | | |
| * Prostate | | Inflammation | Acute, Marked |
| | [Inflammation TGLs = 7-16] | | |
| * Salivary Glands | Parotid GI | Atrophy | Marked |
| | Parotid GI | Inflammation | Acute, Minimal |
| | Parotid GI | Vacuolation, Cytoplasmic | Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | [Decreased Secretory Fluid TGLs = 6-16] | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Skin | | Cyst Epithelial Inclusion | |
| | [Cyst Epithelial Inclusion TGLs = 2-20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Pigment | Moderate |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1434

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1434

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|-----------|--------------|----------------------|
| * Testis | Germ Cell | Inflammation | Chronic Active, Mild |
| [Degeneration TGLs = 4-16A] | | Degeneration | Minimal |
| * Thymus | | Atrophy | Marked |

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGLs 10,16 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1435

TRT#: 3

SEX: Male

DAY ON TEST: 663

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1435

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Testis
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Salivary Glands
- * Trachea
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Skin
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Stomach, Glandular

MISSING

- * Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - [Hypertrophy TGLs = 6-7]
- * Adrenal Medulla
 - Hyperplasia
- * Bone
 - Fibrous Osteodystrophy
- * Brain
 - Compression
 - [Compression TGLs = 9-2]
- * Heart
 - Cardiomyopathy
- * Islets, Pancreatic
 - Hyperplasia
- * Kidney
 - Nephropathy
 - [Nephropathy TGLs = 7-13]
- * Liver
 - Hepatocyte
 - Vacuolation, Cytoplasmic
- * Lung
 - Congestion
 - Alveolus
 - Infiltration Cellular
 - [Congestion TGLs = 8-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - [Proliferation TGLs = 3-9]
- * Mammary Gland
 - Duct
 - Dilation
 - [Dilation TGLs = 2-9]
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1435

TRT#: 3

SEX: Male

DAY ON TEST: 663

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1435

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|------------------------------|--------------------------|
| * Pancreas | Acinus | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 10-4] | | | |
| * Preputial Gland | | Inflammation | Chronic Active, Moderate |
| [Inflammation TGLs = 1-16] | | | |
| * Prostate | | Inflammation | Acute, Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Moderate |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| * Thyroid Gland | C Cell | Adenoma | |
| [Adenoma TGLs = 11-8] | | | |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 4,5,12 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1436

TRT#: 3

SEX: Male

DAY ON TEST: 705

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1436

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Small, Duodenum
- * Parathyroid Gland
- * Spinal Cord, Thoracic
- * Urinary Bladder
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Prostate
- * Stomach, Glandular
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Skin
- * Thyroid Gland
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Trachea

MISSING

- * Mammary Gland
- * Thymus

INSUFFICIENT TISSUE

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Adenoma
 - Angiectasis Mild
 - Hyperplasia Mild
 - [Adenoma TGLs = 2-7]
 - [Angiectasis TGLs = 3-7]
- * Adrenal Medulla
 - Hyperplasia Mild
- * Bone Marrow
 - Hemorrhage Mild
- * Brain
 - Compression Minimal
- * Epididymis
 - Exfoliated Germ Cell Moderate
 - Hypospermia Minimal
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy Minimal
 - Cardiomyopathy Minimal
 - [Cardiomyopathy TGLs = 11-11.1]
- * Islets, Pancreatic
 - Hyperplasia Moderate
- * Kidney
 - Nephropathy Chronicprogr, Marked
 - [Nephropathy TGLs = 5-13]
- * Liver
- * Lung
 - Alveolus
 - Eosinophilic Focus
 - Infiltration Cellular Histiocyte, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1437

TRT#: 3

SEX: Male

DAY ON TEST: 568

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1437

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Bone Marrow | * Brain | * Esophagus |
| * Harderian Gland | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric | * Mammary Gland |
| * Pituitary Gland | * Preputial Gland | * Prostate | * Seminal Vesicle |
| * Skin | * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

MISSING

- | | |
|---------------------|---------------------|
| * Parathyroid Gland | Trigeminal Ganglion |
|---------------------|---------------------|

OBSERVATIONS

- | | | | |
|--------------------------|--------------------|------------------------|-----------------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| * Aorta | | Mineral | Moderate |
| Blood Vessel | Pulmn Artery | Mineral | Moderate |
| * Bone | | Fibrous Osteodystrophy | Mild |
| * Epididymis | | Exfoliated Germ Cell | Moderate |
| * Eye | Cornea, Epithelium | Hyperplasia | Minimal |
| | Antr Chamber | Inflammation | Acute, Minimal |
| | Cornea | Inflammation | Acute, Mild |
| * Heart | | Cardiomyopathy | Moderate |
| * Intestine Large, Cecum | Artery | Inflammation | Chronic Active, Minimal |
| * Intestine Large, Colon | Artery | Inflammation | Chronic Active, Minimal |
| * Kidney | Renal Tubule | Cyst | |
| | | Nephropathy | Chronicprogr, Marked |
| | | | [Cyst TGLs = 1-20] |
| | | | [Nephropathy TGLs = 2-13] |
| * Liver | Bile Duct | Cyst | |
| | | | [Cyst TGLs = 3-20] |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| Lymph Node | Lymph Sinus, Renal | Ectasia | Mild |
| | Renal | Erythrophagocytosis | Moderate |
| | | | [Ectasia TGLs = 7-21] |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1437

TRT#: 3

SEX: Male

DAY ON TEST: 568

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1437

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------------------|---|--|
| | [Erythrophagocytosis TGLs = 8-21] | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia Erythrophagocytosis Proliferation | Mild Minimal Plasma Cell, Moderate |
| | [Ectasia TGLs = 4-9] | | |
| Mesentery | Artery Vein Artery | Inflammation Inflammation Mineral Neovascularization | Chronic Active, Mild Chronic Active, Mild Mild Mild |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus Artery | Adenoma Hyperplasia | Marked Chronic Active, Mild |
| * Peripheral Nerve, Sciatic | | Inflammation | Chronic Active, Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Salivary Glands | Parotid GI Duct, Parotid GI | Degeneration Atrophy Inflammation | Mild Marked Acute, Moderate |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration Degeneration | Moderate Minimal |
| * Spleen | Red Pulp | Atrophy | Mild |
| | [Atrophy TGLs = 6-12] | | |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell Artery | Degeneration Inflammation | Mild Chronic Active, Minimal |
| * Thymus | | Atrophy | Marked |
| | [Atrophy TGLs = 14-6] | | |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 5,9,10,11,12,13 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1438

TRT#: 3

SEX: Male

DAY ON TEST: 610

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1438

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------------|---------------|-----------------|-------------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 10-4] | | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| * Prostate | | Inflammation | Acute, Minimal |
| * Skin | | Keratoacanthoma | |
| [Keratoacanthoma TGLs = 11-20] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Minimal |
| | | Pigment | Mild |
| [Atrophy TGLs = 8-12] | | | |
| * Testis | Seminif Tub | Dilation | Mild |
| [Dilation TGLs = 1-16A] | | | |
| * Thymus | | Atrophy | Moderate |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 3,4,6,12,13 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1439

TRT#: 3

SEX: Male

DAY ON TEST: 662

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1439

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Thyroid Gland
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Trachea
- * Eye
- * Intestine Small, Duodenum
- * Lung
- * Salivary Glands
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Bone
- * Bone Marrow
- * Brain
- * Epididymis
- * Harderian Gland
- * Heart
- * Kidney
- * Liver
- * Lymph Node, Mandibular
- * Nose
- * Pancreas
- Pineal Gland
- Pineal Gland
- Ventricl Rgt
- Renal Tubule
- Renal Tubule
- [Hypospermia TGLs = 7-16A]
- [Cyst TGLs = 1,2-13,20.1]
- [Nephropathy TGLs = 3,4,5-13]
- [Proliferation TGLs = 9-9]
- [Adenoma TGLs = 13-6]
- Hyperplasia
- Fibrous Osteodystrophy
- Hypercellularity
- Mineral
- Mineral
- Vacuolation, Cytoplasmic
- Exfoliated Germ Cell
- Hypospermia
- Inflammation
- Cardiomyopathy
- Cardiomyopathy
- Cyst
- Hyperplasia
- Nephropathy
- Infiltration Cellular
- Proliferation
- Accumulation, Hyaline Droplet
- Adenoma
- Minimal
- Mild
- Minimal
- Minimal
- Minimal
- Moderate
- Moderate
- Acute, Moderate
- Mild
- Minimal
- Atypical, Mild
- Chronicprogr, Marked
- Mixed Cell, Minimal
- Plasma Cell, Mild
- Minimal
- Multiple

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1439

TRT#: 3

SEX: Male

DAY ON TEST: 662

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1439

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|---------------------------|----------------------|
| * Parathyroid Gland | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| | [Inflammation TGLs = 12-16] | | |
| * Prostate | | Inflammation | Acute, Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | [Decreased Secretory Fluid TGLs = 8-16] | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Skin | | Keratoacanthoma | |
| | [Keratoacanthoma TGLs = 11-20.1] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Minimal |
| * Stomach, Forestomach | | Edema | Minimal |
| | Epithelium | Hyperplasia | Mild |
| | | Ulcer | Mild |
| * Testis | Germ Cell | Degeneration | Moderate |
| | [Degeneration TGLs = 6-16A] | | |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Skin Keratoacanthoma

Animal Note: TGL 10 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1440

TRT#: 3

SEX: Male

DAY ON TEST: 447

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1440

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lymph Node, Mandibular | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nerve Trigeminal | * Parathyroid Gland | * Pituitary Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | Skeletal Muscle |
| * Spinal Cord, Cervical | * Spinal Cord, Lumbar | * Spinal Cord, Thoracic | * Stomach, Forestomach |
| * Testis | * Thyroid Gland | * Trachea | * Urinary Bladder |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|-----------------------------|-------------------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| * Bone Marrow | | Hypercellularity | Moderate |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Hyperplasia | Mild |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | | Extramedullary Hematopoiesis | Mild |
| | Hepatocyte | Necrosis | Mild |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Atrophy | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| * Skin | Subcut Tiss | Fibroma | |
| | [Fibroma TGLs = 1-20] | | |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| * Stomach, Glandular | | Erosion | Minimal |
| * Thymus | | Atrophy | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1440

TRT#: 3

SEX: Male

DAY ON TEST: 447

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1440

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Fibroma

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1441

TRT#: 3

SEX: Male

DAY ON TEST: 404

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1441

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|------------------------------|-------------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Cyst | |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| * Skin | Subcut Tiss | Hemorrhage | Marked |
| Note: Possibly remnant of inclusion cyst, but no identifying features in tissue surrounding region of hemorrhage. | | | |
| [Hemorrhage TGLs = 8-20,21RT] | | | |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| [Extramedullary Hematopoiesis TGLs = 3-12] | | | |
| * Thymus | | Atrophy | Moderate |
| [Atrophy TGLs = 5-6] | | | |

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Hemorrhage

Animal Note: TGLs 6,9,10 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1442

TRT#: 3

SEX: Male

DAY ON TEST: 615

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1442

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone Marrow
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Thyroid Gland
- * Esophagus
- * Intestine Small, Jejunum
- * Mammary Gland
- * Trachea
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Prostate
- Trigeminal Ganglion
- * Intestine Large, Rectum
- * Liver
- * Skin
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum

OBSERVATIONS

| | | | |
|--------------------------|---------------------------------|--------------------------|-------------------------|
| * Adrenal Cortex | | Vacuolation, Cytoplasmic | Minimal |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Aorta | | Dilation | Minimal |
| | | Mineral | Moderate |
| | [Dilation TGLs = 13-11,20] | | |
| | [Mineral TGLs = 14-11,20] | | |
| * Bone | | Fibrous Osteodystrophy | Minimal |
| * Brain | Pineal Gland | Mineral | Minimal |
| | | Necrosis | Minimal |
| | Pineal Gland | Vacuolation, Cytoplasmic | Mild |
| * Epididymis | | Exfoliated Germ Cell | Moderate |
| | | Hypospermia | Moderate |
| * Eye | Antr Chamber | Inflammation | Acute, Minimal |
| | Cornea | Inflammation | Acute, Minimal |
| * Harderian Gland | | Infiltration Cellular | Lymphocyte, Minimal |
| * Heart | | Cardiomyopathy | Moderate |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Intestine Small, Ileum | | Congestion | Mild |
| | | Inflammation | Acute, Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 1,2,3-13] | | |
| * Lung | Artery | Inflammation | Chronic Active, Minimal |
| | Interstitium | Inflammation | Chronic, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1442

TRT#: 3

SEX: Male

DAY ON TEST: 615

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1442

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|-------------------------------|-------------------------|
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | | Adenoma | |
| | Acinus | Hyperplasia | Moderate |
| | Artery | Inflammation | Chronic Active, Mild |
| [Adenoma TGLs = 12-6] | | | |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| * Salivary Glands | Parotid GI | Atrophy | Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| [Decreased Secretory Fluid TGLs = 6-16] | | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Minimal |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Moderate |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Moderate |
| | Artery | Inflammation | Chronic Active, Mild |
| [Degeneration TGLs = 4-16A] | | | |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 5,7,8,9,10,11 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1443

TRT#: 3

SEX: Male

DAY ON TEST: 597

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1443

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Brain | * Esophagus |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lung | * Lymph Node, Mesenteric | * Mammary Gland | * Prostate |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|---|--------------------------------|---|---------------------------------------|
| * Adrenal Cortex | | Hyperplasia Vacuolation, Cytoplasmic | Mild Moderate |
| * Adren Medulla | | | |
| Note: Numerous small arteries affected by chronic active inflammation and fibrinoid necrosis. | | | |
| * Bone | | Fibrous Osteodystrophy | Mild |
| * Bone Marrow | | Hypercellularity | Mild |
| * Epididymis | | Exfoliated Germ Cell Hypospermia | Mild Marked |
| | [Hypospermia TGLs = 2-16A] | | |
| * Eye | Retina | Atrophy | Minimal |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | Renal Tubule | Cyst Nephropathy | Chronicprogr, Marked |
| | [Cyst TGLs = 8-13,20] | | |
| | [Nephropathy TGLs = 7-13,20] | | |
| * Liver | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia Proliferation | Lymphocyte, Mild Plasma Cell, Mild |
| | Mesentery | Inflammation | Chronic Active, Mild |
| | Artery | Mineral | Mild |
| * Nerve Trigeminal | Artery | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1443

TRT#: 3

SEX: Male

DAY ON TEST: 597

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1443

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------|------------------------------|--------------------------|
| * Pancreas | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Preputial Gland | Duct | Dilation | Mild |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Mild |
| | Parotid GI | Inflammation | Acute, Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| [Decreased Secretory Fluid | TGLs = 3-16] | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Marked |
| | Artery | Inflammation | Chronic Active, Moderate |
| [Degeneration | TGLs = 1-16A] | | |
| * Thymus | | Atrophy | Marked |
| | | Ectopic Parathyroid Gland | |
| | Artery | Inflammation | Chronic Active, Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 4,5,9,10 = NCL (No Corresponding Lesion)

Animal Note: TGL 6 = NST (No Section Taken)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1444

TRT#: 3

SEX: Male

DAY ON TEST: 717

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1444

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Trachea
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skin
- * Urinary Bladder
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Necrosis
 - Vacuolation, Cytoplasmic
- Mild
 - Mild
 - Moderate
 - Minimal
- [Necrosis TGLs = 1-7]
- * Aorta
 - Dilation
 - Mineral
- Mild
 - Moderate
- [Dilation TGLs = 25-11]
- * Bone
 - Fibrous Osteodystrophy
- * Bone Marrow
 - Hemorrhage
- * Brain
 - Edema
 - Necrosis
- Minimal
 - Minimal
- Pineal Gland
 - Vacuolation, Cytoplasmic
 - Hypospermia
- * Epididymis
 - Minimal
 - Marked
- [Hyospermia TGLs = 5-16A]
- * Eye
 - Cornea
 - Antr Chamber
 - Cornea
- Inflammation
 - Inflammation
 - Ulcer
- Acute, Mild
 - Acute, Mild
 - Mild
- * Heart
 - Cardiomyopathy
 - Ventricl Rgt
 - Artery
- Cardiomyopathy
 - Mineral
- Marked
 - Minimal
 - Mild
- * Kidney
 - Renal Tubule
- Cyst
 - Nephropathy
- Chronicprogr, Marked
- [Cyst TGLs = 15-13]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1444

TRT#: 3

SEX: Male

DAY ON TEST: 717

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1444

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|-------------------------|
| | [Nephropathy TGLs = 13,14-13] | | |
| * Liver | | Eosinophilic Focus | |
| | | Hepatodiaphragmatic Nodule | |
| | Bile Duct | Hyperplasia | Minimal |
| | Hepatocyte | Necrosis | Mild |
| | [Hepatodiaphragmatic Nodule TGLs = 17-20] | | |
| | [Necrosis TGLs = 12-12] | | |
| * Lung | Interstitialium | Inflammation | Chronic, Minimal |
| Lymph Node | Renal | Erythrophagocytosis | Moderate |
| | [Erythrophagocytosis TGLs = 22,23-21] | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| | [Ectasia TGLs = 2-9] | | |
| Mesentery | Artery | Inflammation | Chronic Active, Minimal |
| | Artery | Mineral | Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Atrophy | Minimal |
| | Acinus | Hyperplasia | Moderate |
| | Artery | Inflammation | Chronic Active, Mild |
| | Artery | Mineral | Mild |
| | [Hyperplasia TGLs = 21-6] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Note: Hemorrhage within cyst. | | |
| | [Cyst TGLs = 20-4] | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| | [Dilation TGLs = 19-16] | | |
| * Prostate | Artery | Thrombus | Marked |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| | Parotid GI | Inflammation | Acute, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1444

TRT#: 3

SEX: Male

DAY ON TEST: 717

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1444

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------|---------------------------|------------------------|
| * Seminal Vesicle | Artery | Mineral | Mild |
| [Decreased Secretory Fluid | TGLs = 6-16] | Decreased Secretory Fluid | Marked |
| Skeletal Muscle | | Degeneration | Minimal |
| [Hernia | TGLs = 16-20] | Hernia | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| [Atrophy | TGLs = 18-12] | Red Pulp | Mild |
| * Stomach, Forestomach | | Edema | Moderate |
| | | Inflammation | Acute, Minimal |
| | | Ulcer | Minimal |
| * Stomach, Glandular | | Mineral | Marked |
| * Testis | Germ Cell | Degeneration | Marked |
| [Degeneration | TGLs = 4-16A] | Artery | Inflammation |
| | | | Chronic Active, Marked |
| * Thymus | | Atrophy | Marked |
| | | Cyst | |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 7,8,9,10,11,24 = NCL (No Corresponding Lesion)

Animal Note: TGL 3 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1445

TRT#: 3

SEX: Male

DAY ON TEST: 582

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1445

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Esophagus | * Harderian Gland |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Mammary Gland | * Nerve Trigeminal |
| * Parathyroid Gland | * Preputial Gland | * Prostate | * Salivary Glands |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Spinal Cord, Thoracic |
| * Stomach, Forestomach | * Stomach, Glandular | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|--------------------------|--------------|--------------------------|--------------------------------|
| * Adrenal Cortex | | Vacuolation, Cytoplasmic | Moderate |
| * Bone | | Fibrous Osteodystrophy | Minimal |
| * Bone Marrow | | Hypercellularity | Mild |
| * Brain | Meninges | Fibrosis | Minimal |
| | | Hemorrhage | Minimal |
| | | Necrosis | Minimal |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| | | Hypospermia | Marked |
| * Eye | Antr Chamber | Inflammation | Acute, Minimal |
| * Heart | | Cardiomyopathy | Mild |
| | Artery | Mineral | Minimal |
| * Intestine Large, Cecum | Artery | Inflammation | Chronic Active, Mild |
| * Intestine Large, Colon | Artery | Inflammation | Chronic Active, Minimal |
| * Kidney | Renal Tubule | Cyst | |
| | | Nephropathy | Chronicprogr, Marked |
| | | | [Cyst TGLs = 1,2,3-13] |
| | | | [Nephropathy TGLs = 8,11-13] |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | Artery | Inflammation | Chronic Active, Mild |
| | Artery | Mineral | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| | | Proliferation | Plasma Cell, Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1445

TRT#: 3

SEX: Male

DAY ON TEST: 582

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1445

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------|-------------------------------|-------------------------|
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| [Decreased Secretory Fluid | TGLs = 4-16] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | Red Pulp | Atrophy | Minimal |
| [Atrophy | TGLs = 9-12] | | |
| * Testis | Interstit Cell | Adenoma | |
| | Germ Cell | Degeneration | Marked |
| | Artery | Inflammation | Chronic Active, Minimal |
| [Degeneration | TGLs = 5-16A] | | |
| * Thymus | | Atrophy | Marked |
| | | Ectopic Parathyroid Gland | |
| * Thyroid Gland | C Cell | Adenoma | |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 6,7 = NCL (No Corresponding Lesion)

Animal Note: TGL 10 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1551

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1551

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Seminal Vesicle
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Testis
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Preputial Gland
- * Spinal Cord, Cervical
- * Trachea
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Prostate
- * Stomach, Forestomach
- Trigeminal Ganglion

MISSING

- * Mammary Gland
- * Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 - * Adrenal Medulla
 - Pheochromocytoma Benign
 - * Bone Marrow
 - Hypercellularity
 - * Eye
 - Cornea
 - Fibrosis
 - Cornea, Epithelium
 - Hyperplasia
 - Cornea
 - Inflammation
 - Cornea
 - Neovascularization
 - * Heart
 - Cardiomyopathy
 - * Kidney
 - Ventricl Rgt
 - Cardiomyopathy
 - * Liver
 - Periductal
 - Nephropathy
 - Cholangiofibrosis
 - Mixed Cell Focus
- Note: Intestinal metaplasia of extrahepatic bile duct.
- Note: Intestinal metaplasia of bile ducts within region of fibrosis.
- * Lung
 - Alveolus
 - Infiltration Cellular
 - * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - * Nerve Trigeminal
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1551

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1551

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|-------------------------------|----------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Atrophy | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | Multiple |
| | Pars Distalis | Hyperplasia | Mild |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Mild |
| * Skin | | Cyst Epithelial Inclusion | |
| Note: Inclusion cyst markedly inflamed. | | | |
| [Cyst Epithelial Inclusion TGLs = 1-20] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| * Thyroid Gland | C Cell | Adenoma | |
| [Adenoma TGLs = 3,4-8] | | | |

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1552

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1552

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- Skeletal Muscle
- * Thyroid Gland
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Prostate
- * Skin
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Eye
- [Hyperplasia TGLs = 1-5]
- * Heart
- [Cardiomyopathy TGLs = 7-20]
- * Kidney
- [Nephropathy TGLs = 6-13]
- * Liver
- * Lymph Node, Mandibular
- * Nerve Trigeminal
- * Nose
- * Pancreas
- [Hyperplasia TGLs = 5-6,14]
- * Parathyroid Gland
- Retina
- Cornea, Epithelium
- Cornea
- Cornea
- Ventricl Rgt
- Lymph Sinus
- Olfactory Epi
- Acinus
- Hyperplasia
- Hyperplasia
- Hypercellularity
- Atrophy
- Hyperplasia
- Inflammation
- Neovascularization
- Cardiomyopathy
- Cardiomyopathy
- Nephropathy
- Basophilic Focus
- Mixed Cell Focus
- Ectasia
- Hyperplasia
- Proliferation
- Degeneration
- Accumulation, Hyaline Droplet
- Hyperplasia
- Hyperplasia
- Mild
- Minimal
- Minimal
- Mild
- Acute, Minimal
- Minimal
- Mild
- Minimal
- Chronicprogr, Moderate
- Minimal
- Lymphocyte, Minimal
- Plasma Cell, Mild
- Minimal
- Mild
- Moderate
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1552

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1552

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------------|------------------------------|-------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Preputial Gland | Duct | Dilation | Marked |
| | | Inflammation | Chronic Active, Marked |
| [Inflammation | TGLs = 2,3,4-16,20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Minimal |
| * Thymus | | Hyperplasia | Epithelial, Marked |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1553

TRT#: 5

SEX: Male

DAY ON TEST: 688

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1553

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Stomach, Forestomach
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Trachea
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- Trigeminal Ganglion
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Mammary Gland
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex Extramedullary Hematopoiesis Minimal
- * Adrenal Medulla Hyperplasia Moderate
- * Bone Marrow Hypercellularity Marked
- Coagulating Gland Inflammation Suppurative, Marked
- * Epididymis Exfoliated Germ Cell Mild
- * Eye Cornea Neovascularization Minimal
- * Heart Cardiomyopathy Minimal
- Ventricl Rgt Cardiomyopathy Minimal
- Myocardium Mineral Minimal
- * Kidney Nephropathy Chronicprogr, Moderate
- * Liver Hepatocyte Degeneration Moderate
- Hepatocyte Necrosis Moderate
- Hepatocyte Vacuolation, Cytoplasmic Marked
- [Vacuolation, Cytoplasmic TGLs = 5-12]
- * Nerve Trigeminal Degeneration Moderate
- * Nose Olfactory Epi Accumulation, Hyaline Droplet Moderate
- Note: Approximately two-thirds of level 3 available for evaluation.
- * Pancreas Adenoma
- [Adenoma TGLs = 6-6]
- * Parathyroid Gland Hyperplasia Minimal
- * Peripheral Nerve, Sciatic Degeneration Moderate
- * Peripheral Nerve, Tibial Degeneration Mild
- * Pituitary Gland Pars Distalis Adenoma
- [Adenoma TGLs = 8-4]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1553

TRT#: 5

SEX: Male

DAY ON TEST: 688

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1553

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--|------------------------------|-------------------------|
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| * Prostate | | Inflammation | Acute, Marked |
| | [Inflammation TGLs = 3-16] | | |
| * Salivary Glands | Parotid Gl | Atrophy | Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Minimal |
| | [Decreased Secretory Fluid TGLs = 2-16] | | |
| Skeletal Muscle | | Degeneration | Mild |
| | | Mineral | Minimal |
| * Skin | Subcut Tiss | Hibernoma | |
| | [Hibernoma TGLs = 1-20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | [Extramedullary Hematopoiesis TGLs = 4-12] | | |
| * Stomach, Glandular | | Erosion | Mild |
| | | Necrosis | Mild |
| * Testis | Germ Cell | Degeneration | Mild |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Hibernoma

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1554

TRT#: 5

SEX: Male

DAY ON TEST: 720

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1554

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skin
- * Urinary Bladder
- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Stomach, Glandular
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Thyroid Gland
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Prostate
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Bone
 - Fibrous Osteodystrophy
- * Bone Marrow
 - Hypercellularity
- * Epididymis
 - Exfoliated Germ Cell
 - Hypospermia
- * Eye
 - Cornea
 - Neovascularization
 - Retinal Detachment
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
- * Kidney
 - Artery
 - Inflammation
 - Nephropathy
- * Liver
 - [Inflammation TGLs = 5-13]
 - [Nephropathy TGLs = 3,4-13]
 - Hepatocyte
 - Vacuolation, Cytoplasmic TGLs = 6-12]
- * Lung
 - Alveolus
 - Hemorrhage
 - Infiltration Cellular
 - Inflammation
- Lymph Node
 - [Hemorrhage TGLs = 9-10]
 - [Inflammation TGLs = 8-10]
 - Mediastinal
 - Erythrophagocytosis
 - Mediastinal
 - Infiltration Cellular

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1554

TRT#: 5

SEX: Male

DAY ON TEST: 720

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1554

ORGAN AND ACCOUNTABLE SITE STATUS

[Erythrophagocytosis TGLs = 13-6]

[Infiltration Cellular TGLs = 12-6]

| | | | |
|---|---------------|-------------------------------|--------------------------|
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| Mesentery | Artery | Inflammation | Chronic Active, Marked |
| [Inflammation TGLs = 10-14,20] | | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| [Hyperplasia TGLs = 11-8] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | | Fibrosis | Minimal |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| [Decreased Secretory Fluid TGLs = 2-16.1] | | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Testis | Germ Cell | Degeneration | Moderate |
| | Artery | Inflammation | Chronic Active, Moderate |
| [Degeneration TGLs = 1-16A] | | | |
| * Thymus | | Atrophy | Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Mesentery Artery Inflammation

CONTRIBUTORY CAUSE OF DEATH - Kidney Nephropathy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1554

TRT#: 5

SEX: Male

DAY ON TEST: 720

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1554

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL 7 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1555

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1555

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|--|--------------------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 17-4] | | |
| * Preputial Gland | Duct | Dilation Inflammation | Marked Chronic Active, Marked |
| | [Dilation TGLs = 3,4-16] | | |
| * Prostate | | Decreased Secretory Fluid Inflammation | Mild Chronic Active, Moderate |
| | [Decreased Secretory Fluid TGLs = 8-16] | | |
| * Salivary Glands | Parotid G1 | Atrophy | Marked |
| * Seminal Vesicle | | Inflammation | Acute, Marked |
| | [Inflammation TGLs = 7,18-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | Hair Follicle | Degeneration | Moderate |
| | Note: Hair follicles are dilated with lack of hair shafts. | | |
| | [Degeneration TGLs = 2-20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | Red Pulp | Atrophy Pigment | Mild Marked |
| | [Atrophy TGLs = 19-12] | | |
| * Stomach, Forestomach | | Inflammation Squamous Cell Carcinoma Ulcer | Chronic Active, Moderate Mild |
| * Testis | Germ Cell | Degeneration | Marked |
| | [Degeneration TGLs = 6-16A] | | |
| * Thymus | | Atrophy | Moderate |
| * Thyroid Gland | C Cell C Cell | Adenoma Hyperplasia | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1555

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1555

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLs = 15-8]

Trigeminal Ganglion

Degeneration

Minimal

* Urinary Bladder

Urothelium

Hyperplasia

Minimal

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGLs 12,14,16 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1556

TRT#: 5

SEX: Male

DAY ON TEST: 610

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1556

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|--------------|-------------------------|
| * Pituitary Gland [Adenoma TGLs = 1-4] | Pars Distalis | Adenoma | |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| * Skin | Conjunctiva | Sarcoma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: TGLs 3,7 = NCL (No Corresponding Lesion)

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1557

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1557

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- Skeletal Muscle
- * Thyroid Gland
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Prostate
- * Skin
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
- * Epididymis
- * Heart
- * Kidney
- [Nephropathy TGLs = 1-13]
- * Liver
- Bile Duct
- Hepatocyte
- * Lymph Node, Mandibular
- * Nerve Trigeminal
- * Nose
- * Pancreas
- Acinus
- Artery
- [Adenoma TGLs = 2-6]
- [Hyperplasia TGLs = 2-6,14]
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- Hypertrophy
- Exfoliated Germ Cell
- Cardiomyopathy
- Nephropathy
- Hyperplasia
- Infiltration Cellular
- Mixed Cell Focus
- Necrosis
- Hyperplasia
- Proliferation
- Degeneration
- Accumulation, Hyaline Droplet
- Hyperplasia
- Adenoma
- Hyperplasia
- Inflammation
- Degeneration
- Degeneration
- Minimal
- Minimal
- Minimal
- Chronicprogr, Marked
- Minimal
- Mixed Cell, Minimal
- Mild
- Lymphocyte, Moderate
- Plasma Cell, Mild
- Moderate
- Mild
- Minimal
- Marked
- Chronic Active, Minimal
- Marked
- Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1557

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1557

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|---------------|------------------------------|-------------------------|
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1559

TRT#: 5

SEX: Male

DAY ON TEST: 642

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1559

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Harderian Gland
- * Islets, Pancreatic
- * Pituitary Gland
- * Seminal Vesicle
- * Stomach, Glandular
- Trigeminal Ganglion
- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Liver
- * Preputial Gland
- Skeletal Muscle
- * Testis
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Prostate
- * Skin
- * Thyroid Gland
- * Bone Marrow
- * Eye
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Salivary Glands
- * Stomach, Forestomach
- * Trachea

MISSING

- * Mammary Gland

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Large, Rectum

INSUFFICIENT TISSUE

- * Nerve Trigeminal

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 Minimal
- * Heart
 - Cardiomyopathy
 - Ventricl Rgt
 - Myocardium
 - Cardiomyopathy
 - Schwannoma Malignant
 - Adenocarcinoma
 Mild
Minimal
- * Intestine Small, Duodenum
 - [Adenocarcinoma TGLs = 1-20]
- * Kidney
 - Nephropathy
 Chronicprogr, Moderate
- * Lung
 - Congestion
 - Foreign Body
 - Inflammation
 - Mediastinum
 - Inflammation
 Mild
Suppurative, Mild
Suppurative, Moderate

Note: Plant based material present in airways.

[Congestion TGLs = 3-10]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1559

TRT#: 5

SEX: Male

DAY ON TEST: 642

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1559

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|-------------------------------|-------------------|
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| | | Inflammation | Suppurative, Mild |
| * Pancreas | Acinus | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Pigment | Moderate |
| * Thymus | | Atrophy | Mild |

PRIMARY CAUSE OF DEATH - Intestine Small, Duodenum Adenocarcinoma

CONTRIBUTORY CAUSE OF DEATH - Lung Inflammation

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1560

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1560

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|--------------------------|
| * Nerve Trigeminal | | Proliferation | Plasma Cell, Mild |
| * Nose | Olfactory Epi | Degeneration | Moderate |
| * Pancreas | | Accumulation, Hyaline Droplet | Mild |
| | Acinus | Adenoma | Multiple |
| | Artery | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Mild |
| | [Adenoma TGLs = 8-6] | | |
| | [Hyperplasia TGLs = 8-6,14] | | |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| | [Hyperplasia TGLs = 9-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Preputial Gland | Duct | Dilation | Minimal |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | | Squamous Cell Papilloma | |
| | [Squamous Cell Papilloma TGLs = 1-20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Minimal |

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1561

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1561

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|---|---------------------------|
| | Respirat Epith | Foreign Body Hyperplasia Inflammation | Mild Suppurative, Mild |
| * Pancreas | Acinus | Adenoma Hyperplasia | Marked |
| | [Adenoma TGLs = 3-6] | | |
| | [Hyperplasia TGLs = 3,5-6,14,22] | | |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | | Cyst Epithelial Inclusion | |
| | [Cyst Epithelial Inclusion TGLs = 4-21] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis Pigment | Minimal Minimal |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1562

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1562

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|----------------|------------------------------|-------------------------|
| * Pancreas | Respirat Epith | Hyperplasia | Mild |
| | Acinus | Adenoma | |
| | | Hyperplasia | Marked |
| [Hyperplasia TGLs = 4-6,14] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Testis | Germ Cell | Degeneration | Marked |
| [Degeneration TGLs = 1-16A] | | | |
| * Thymus | | Atrophy | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1563

TRT#: 5

SEX: Male

DAY ON TEST: 592

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1563

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Harderian Gland
- * Preputial Gland
- * Thyroid Gland
- * Bone
- * Intestine Large, Colon
- Skeletal Muscle
- * Trachea
- * Esophagus
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Eye
- * Pituitary Gland
- * Spinal Cord, Thoracic

MISSING

- * Mammary Gland

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Large, Rectum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
 - * Aorta
 - * Bone Marrow
 - * Brain
 - * Epididymis
 - * Eye
 - Note: Eyes located on slide 5A.
 - * Heart
 - * Intestine Small, Duodenum
 - * Islets, Pancreatic
 - * Kidney
 - [Nephropathy TGLs = 12-13]
 - * Liver
 - [Lymphoma Malignant TGLs = 11-12]
 - * Lung
 - [Lymphoma Malignant TGLs = 9,10-10]
 - Lymph Node
 - Mediastinal
 - [Lymphoma Malignant TGLs = 4-20]
 - * Lymph Node, Mandibular
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Nephropathy
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Minimal
- Chronicprogr, Mild
- Lymphoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1563

TRT#: 5

SEX: Male

DAY ON TEST: 592

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1563

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|----------|
| | [Lymphoma Malignant TGLs = 1-9.1] | | |
| * Lymph Node, Mesenteric | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 6-15] | | |
| * Nerve Trigeminal | | Lymphoma Malignant | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| | | Lymphoma Malignant | |
| * Pancreas | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 7-6] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Prostate | | Lymphoma Malignant | |
| * Salivary Glands | | Lymphoma Malignant | |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| | | Lymphoma Malignant | |
| | [Decreased Secretory Fluid TGLs = 2-16] | | |
| * Skin | Subcut Tiss | Lymphoma Malignant | |
| * Spinal Cord, Lumbar | | Degeneration | Mild |
| | Note: Predominantly affecting adjacent spinal nerves. | | |
| * Spleen | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 8-12] | | |
| * Stomach, Forestomach | | Lymphoma Malignant | |
| * Stomach, Glandular | | Lymphoma Malignant | |
| * Testis | Germ Cell | Degeneration | Minimal |
| * Thymus | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 3-6] | | |
| Trigeminal Ganglion | | Lymphoma Malignant | |
| * Urinary Bladder | | Lymphoma Malignant | |

PRIMARY CAUSE OF DEATH - Thymus Lymphoma Malignant

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1564

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1564

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- Trigeminal Ganglion
- * Bone
- * Harderian Gland
- * Intestine Small, Jejunum
- * Mammary Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone Marrow
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- * Brain
- * Intestine Small, Duodenum
- * Lung
- * Seminal Vesicle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hyperplasia
 - Vacuolation, Cytoplasmic
 - [Accessory Adrenal Cortical Nodule TGLs = 2-7]
 - * Adrenal Medulla
 - * Epididymis
 - * Eye
 - Retina
 - Cornea, Epithelium
 - Antr Chamber
 - Cornea
 - Cornea
 - [Hyperplasia TGLs = 8-5]
 - * Heart
 - Ventricle Rgt
 - Cardiomyopathy
 - Cardiomyopathy
 - [Cardiomyopathy TGLs = 9-11]
 - * Intestine Large, Cecum
 - * Intestine Large, Colon
 - * Kidney
 - [Nephropathy TGLs = 3-13]
 - * Liver
 - Hepatocellular Adenoma
 - [Hepatocellular Adenoma TGLs = 4-20]
 - * Lymph Node, Mandibular
- Accessory Adrenal Cortical Nodule
 Hyperplasia Mild
 Vacuolation, Cytoplasmic Mild
 Hyperplasia Mild
 Exfoliated Germ Cell Minimal
 Atrophy Minimal
 Hyperplasia Moderate
 Inflammation Acute, Minimal
 Inflammation Acute, Mild
 Neovascularization Minimal
 Cardiomyopathy Mild
 Cardiomyopathy Mild
 Inflammation Chronic Active, Mild
 Inflammation Chronic Active, Mild
 Nephropathy Chronicprogr, Marked
 Eosinophilic Focus
 Hepatocellular Adenoma
 Hyperplasia Lymphocyte, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1564

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1564

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|-------------------------------|--------------------------|
| Mesentery | Artery | Proliferation | Plasma Cell, Moderate |
| * Nerve Trigeminal | | Inflammation | Chronic Active, Minimal |
| * Nose | Olfactory Epi | Degeneration | Mild |
| * Pancreas | | Accumulation, Hyaline Droplet | Mild |
| | Acinus | Adenoma | |
| | Artery | Hyperplasia | Moderate |
| [Adenoma TGLs = 5-6] | | Inflammation | Chronic Active, Minimal |
| * Parathyroid Gland | | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Intermed | Cyst | |
| | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Mild |
| [Dilation TGLs = 1-16] | | | |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| Skeletal Muscle | | Hemangiosarcoma | |
| [Hemangiosarcoma TGLs = 6-20] | | | |
| * Skin | | Ulcer | Mild |
| [Ulcer TGLs = 7-20] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1565

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1565

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Forestomach
- * Trachea
- * Aorta
- * Epididymis
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- Skeletal Muscle
- * Stomach, Glandular
- Trigeminal Ganglion
- * Bone
- * Esophagus
- * Intestine Small, Duodenum
- * Lung
- * Pituitary Gland
- * Skin
- * Testis
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Cervical
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia Mild
 - Hypertrophy Minimal
- * Eye
 - Cornea, Epithelium Degeneration Minimal
 - Cornea, Epithelium Hyperplasia Minimal
 - Cornea Inflammation Acute, Minimal
 - Phthisis Bulbi Phthisis Bulbi Moderate
- [Hyperplasia TGLs = 2-5]
- [Phthisis Bulbi TGLs = 1-5]
- * Harderian Gland
 - Inflammation Chronic Active, Mild
- * Heart
 - Cardiomyopathy Mild
- * Kidney
 - Ventricle Rgt Cardiomyopathy Mild
 - Nephropathy Chronicprogr, Mild
- * Liver
 - Eosinophilic Focus
 - Bile Duct Hyperplasia Minimal
 - Mixed Cell Focus
- * Lymph Node, Mandibular
 - Lymph Sinus Ectasia Minimal
 - Hyperplasia Lymphocyte, Minimal
 - Proliferation Plasma Cell, Minimal
- * Nerve Trigeminal
 - Degeneration Minimal
- * Nose
 - Olfactory Epi Accumulation, Hyaline Droplet Mild
- * Pancreas
 - Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1565

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1565

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|------------------------------|------------------------------|-------------------------|
| | Acinus | Hyperplasia | Moderate |
| | [Adenoma TGLs = 6-6] | | |
| | [Hyperplasia TGLs = 6-6] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| | [Dilation TGLs = 3,4,5-16] | | |
| * Prostate | | Inflammation | Acute, Marked |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| * Urinary Bladder | Urothelium | Hyperplasia | Minimal |
| | Serosa | Inflammation | Chronic Active, Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1566

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1566

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Colon
- * Lymph Node, Mandibular
- * Prostate
- * Testis
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Mammary Gland
- * Salivary Glands
- * Thyroid Gland
- * Bone
- * Eye
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Skeletal Muscle
- * Trachea
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Stomach, Glandular
- * Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 Mild
Minimal
- * Adren Medulla
 - Note: One of pair available for evaluation.
- * Bone Marrow
 - Hypercellularity
 Marked
- * Harderian Gland
 - Degeneration
 Cystic, Minimal
- * Heart
 - Cardiomyopathy
 Mild
- * Intestine Small, Duodenum
 - [Osteosarcoma TGLs = 6,7-20]
- * Islets, Pancreatic
 - [Carcinoma TGLs = 14-6]
 Carcinoma
- * Kidney
 - Nephropathy
 Chronicprogr, Minimal
- * Liver
 - Extramedullary Hematopoiesis
 Minimal
- * Lung
 - Alveolus
 - Infiltration Cellular
 Histiocyte, Minimal
- * Lymph Node, Mesenteric
 - Lymph Sinus
 - [Ectasia TGLs = 8-15]
 Ectasia
Mild
- * Nerve Trigeminal
 - Degeneration
 Moderate
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 Mild
- * Pancreas
 - Acinus
 - Hyperplasia
 Marked
- * Peripheral Nerve, Sciatic
 - Degeneration
 Moderate
- * Peripheral Nerve, Tibial
 - Degeneration
 Moderate
- * Pituitary Gland

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1566

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1566

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Pars distalis available for evaluation.

| | | | |
|--|-------------|------------------------------|----------------------|
| * Preputial Gland | Duct | Dilation | Marked |
| [Dilation TGLs = 1-16] | | | |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| [Decreased Secretory Fluid TGLs = 13-16] | | | |
| * Skin | Subcut Tiss | Fibroma | Multiple |
| [Fibroma TGLs = 2,3-20,21] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | | Hemorrhage | Minimal |
| [Extramedullary Hematopoiesis TGLs = 4-12] | | | |
| [Hemorrhage TGLs = 5-12] | | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Marked |
| | | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Moderate |
| | | Ectopic Parathyroid Gland | |

Animal Note: TGLs 9,10,11,12 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1567

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1567

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Small, Duodenum
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Skeletal Muscle
- * Stomach, Glandular
- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Prostate
- * Skin
- * Trachea
- * Brain
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Cervical
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Hyperplasia
 - Pheochromocytoma Malignant
- [Pheochromocytoma Malignant TGLs = 1-7]
- * Epididymis
 - Exfoliated Germ Cell
- * Eye
 - Retina
 - Atrophy
- * Heart
 - Cardiomyopathy
 - Cardiomyopathy
 - Inflammation
- * Intestine Large, Cecum
 - Ventricl Rgt
 - Artery
 - Inflammation
- * Islets, Pancreatic
 - Carcinoma
 - Hyperplasia
- * Kidney
 - Nephropathy
- [Nephropathy TGLs = 2-13]
- * Liver
 - Basophilic Focus
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - Infiltration Cellular
 - Inflammation
 - Pheochromocytoma Malignant
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
- Mesentery
 - Artery
 - Inflammation

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1567

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1567

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|-------------------------------|--------------------------|
| * Nose | Olfactory Epi | Neovascularization | Minimal |
| * Pancreas | Acinus | Accumulation, Hyaline Droplet | Moderate |
| * Parathyroid Gland | | Atrophy | Minimal |
| * Peripheral Nerve, Sciatic | | Hyperplasia | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Degeneration | Moderate |
| * Preputial Gland | | Hyperplasia | Minimal |
| * Spinal Cord, Lumbar | Nerve | Inflammation | Chronic Active, Mild |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Degeneration | Minimal |
| | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Adenoma | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1569

TRT#: 5

SEX: Male

DAY ON TEST: 471

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1569

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Rectum
- * Mammary Gland
- * Seminal Vesicle
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Aorta
- * Eye
- * Intestine Small, Duodenum
- * Pancreas
- Skeletal Muscle
- * Testis
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Skin
- * Thyroid Gland
- * Epididymis
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Prostate
- * Spinal Cord, Cervical
- * Trachea

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Brain
 - Note: Multiple infarcts.
 - [Leukemia Mononuclear TGLs = 3-2]
- * Heart
- * Kidney
- * Liver
 - Hepatocyte
 - [Leukemia Mononuclear TGLs = 4,6,7-12,20]
- * Lung
- * Lymph Node, Mandibular
- * Lymph Node, Mesenteric
 - Mesentery
 - [Necrosis TGLs = 1,5-6,20]
- * Nerve Trigeminal
- * Nose
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- Leukemia Mononuclear
- Leukemia Mononuclear
- Leukemia Mononuclear
- Leukemia Mononuclear
- Nephropathy
- Leukemia Mononuclear
- Vacuolation, Cytoplasmic
- Leukemia Mononuclear
- Leukemia Mononuclear
- Leukemia Mononuclear
- Necrosis
- Degeneration
- Accumulation, Hyaline Droplet
- Degeneration
- Degeneration
- Adenoma
- Chronicprogr, Mild
- Mild
- Marked
- Minimal
- Mild
- Minimal
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1569

TRT#: 5

SEX: Male

DAY ON TEST: 471

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1569

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------|--------------------------------------|----------------------|-------------------------|
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| * Salivary Glands | Parotid GI | Atrophy | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLs = 2-12] | Leukemia Mononuclear | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Stomach, Glandular | | Erosion | Minimal |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1570

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1570

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Mammary Gland | * Parathyroid Gland | * Salivary Glands |
| * Seminal Vesicle | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

OBSERVATIONS

| | | | |
|-------------------------------|----------------|-------------------------------|--------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Minimal |
| * Heart | | Cardiomyopathy | Mild |
| | Artery | Inflammation | Chronic Active, Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| [Nephropathy TGLs = 2-13] | | | |
| * Liver | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| Mesentery | Artery | Inflammation | Chronic Active, Moderate |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | | Foreign Body | |
| | Respirat Epith | Hyperplasia | Minimal |
| | | Inflammation | Suppurative, Minimal |
| * Pancreas | Acinus | Hyperplasia | Marked |
| | Artery | Inflammation | Chronic Active, Marked |
| [Hyperplasia TGLs = 3-6,15] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1570

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1570

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|------------------------------|----------------------|
| * Pituitary Gland [Hyperplasia TGLs = 4-4] | Pars Distalis | Hyperplasia | Marked |
| * Preputial Gland | | Fibrosis | Mild |
| * Prostate | | Adenoma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Moderate |

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1571

TRT#: 5

SEX: Male

DAY ON TEST: 619

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1571

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-----------|---------------------------|--------------------------|
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Prostate | | Decreased Secretory Fluid | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spleen | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Schwannoma Malignant | |

[Schwannoma Malignant TGLs = 4-6]

PRIMARY CAUSE OF DEATH - Thymus Schwannoma Malignant

Animal Note: TGLs 5,6,8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1572

TRT#: 5

SEX: Male

DAY ON TEST: 664

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1572

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|---------------|------------------------------|-----------------|
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| [Hyperplasia TGLs = 16-4] | | | |
| * Prostate | | Hemorrhage | Marked |
| [Hemorrhage TGLs = 4-16] | | | |
| * Salivary Glands | Parotid GI | Inflammation | Acute, Mild |
| * Seminal Vesicle | | Hemorrhage | Moderate |
| [Hemorrhage TGLs = 3-16] | | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Marked |
| * Stomach, Glandular | | Mineral | Moderate |
| | | Necrosis | Minimal |
| * Testis | Germ Cell | Degeneration | Minimal |
| [Degeneration TGLs = 8-16A] | | | |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Tissue NOS | Fat | Hemorrhage | Moderate |
| [Hemorrhage TGLs = 10-20] | | | |
| * Urinary Bladder | | Hemorrhage | Marked |
| | | Inflammation | Acute, Moderate |
| | | Necrosis | Moderate |
| [Hemorrhage TGLs = 1,2-13] | | | |

PRIMARY CAUSE OF DEATH - Urinary Bladder Necrosis

Animal Note: TGLs 5,9,11,13,14,15 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1573

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1573

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Seminal Vesicle
- * Testis
- * Urinary Bladder
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Prostate
- * Stomach, Forestomach
- * Trachea
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Salivary Glands
- * Stomach, Glandular
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hypertrophy Mild
 - Vacuolation, Cytoplasmic Mild
 - [Hypertrophy TGLs = 7-7]
- * Adrenal Medulla
 - Hyperplasia Moderate
 - Pheochromocytoma Benign
 - [Pheochromocytoma Benign TGLs = 7-7]
- * Brain
 - Compression Minimal
 - [Compression TGLs = 11-2]
- * Heart
- * Islets, Pancreatic
 - Cardiomyopathy Mild
 - Adenoma
 - Carcinoma
 - Hyperplasia Mild
 - [Carcinoma TGLs = 9-6,14]
- * Kidney
 - Nephropathy Chronicprogr, Mild
 - [Nephropathy TGLs = 8-13]
- * Liver
- * Lung
 - Alveolus
 - Infiltration Cellular Histiocyte, Minimal
 - Lymph Node
 - Ectasia Mild
 - [Ectasia TGLs = 6-20]
- * Lymph Node, Mandibular
 - Ectasia Marked
- * Mammary Gland
 - Duct Moderate
 - Galactocele

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1573

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1573

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | | |
|-----------------------------|------------------------------|---------------|-------------------------------|--------------------------|
| | [Dilation TGLs = 1-9] | | | |
| | [Galactocoele TGLs = 5-21] | | | |
| * Nerve Trigeminal | | | Degeneration | Mild |
| * Nose | | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | | | Inflammation | Suppurative, Minimal |
| | | Olfactory Epi | Metaplasia | Respiratory, Minimal |
| * Pancreas | | Acinus | Hyperplasia | Moderate |
| | [Hyperplasia TGLs = 9-6] | | | |
| * Parathyroid Gland | | | Adenoma | |
| * Peripheral Nerve, Sciatic | | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | | Degeneration | Marked |
| * Pituitary Gland | | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 10-4] | | | |
| * Preputial Gland | | Duct | Dilation | Moderate |
| | | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 4-16] | | | |
| Skeletal Muscle | | | Degeneration | Minimal |
| * Skin | | Subcut Tiss | Inflammation | Chronic Active, Moderate |
| | | | Ulcer | Minimal |
| | [Inflammation TGLs = 2-20] | | | |
| | [Ulcer TGLs = 3-20] | | | |
| * Spinal Cord, Lumbar | | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | | Degeneration | Minimal |
| * Spleen | | | Extramedullary Hematopoiesis | Moderate |
| | | | Pigment | Moderate |
| * Thymus | | | Atrophy | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1574

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1574

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lung | * Lymph Node, Mesenteric | * Mammary Gland | * Parathyroid Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Thymus | * Trachea | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|-----------------------------|--|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Mild |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Mild |
| | [Hyperplasia TGLs = 1-6] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| | Note: Longitudinal section available for evaluation. | | |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Marked |
| * Preputial Gland | Duct | Dilation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1574

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1574

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------|-----------|-------------------------|-----------------|
| * Testis | Germ Cell | Pigment Degeneration | Mild Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1575

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1575

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--------------------------------|------------------------------|----------|
| | Acinus | Hyperplasia | Marked |
| | [Carcinoma TGLs = 14-21] | | |
| | [Hyperplasia TGLs = 12-6,14] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Hyperplasia | Mild |
| | [Adenoma TGLs = 10-4] | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| | [Dilation TGLs = 2,3-16] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | Germ Cell | Degeneration | Mild |
| | [Degeneration TGLs = 4-16A] | | |
| * Thymus | | Atrophy | Mild |

Animal Note: TGLs 5,7,9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1576

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1576

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Islets, Pancreatic
- * Preputial Gland
- * Skin
- * Thyroid Gland
- * Bone
- * Harderian Gland
- * Liver
- * Prostate
- * Spinal Cord, Cervical
- * Trachea
- * Bone Marrow
- * Intestine Large, Colon
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Epididymis
- * Intestine Small, Duodenum
- * Parathyroid Gland
- * Seminal Vesicle
- * Stomach, Glandular

MISSING

- * Thymus

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Jejunum
- * Intestine Large, Cecum
- * Intestine Large, Rectum
- * Intestine Small, Ileum

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Brain
- * Heart
- * Kidney
- * Lung
- * Lymph Node, Mandibular
- * Mammary Gland
- * Nerve Trigeminal
- * Nose
- * Pancreas
- Hyperplasia
- Hyperplasia
- Compression
- Cardiomyopathy
- Ventricl Rgt
- Cardiomyopathy
- Nephropathy
- Congestion
- Congestion
- Proliferation
- Dilation
- Degeneration
- Accumulation, Hyaline Droplet
- Adenoma
- Mild
- Marked
- Minimal
- Moderate
- Mild
- Chronicprogr, Marked
- Moderate
- Mild
- Plasma Cell, Mild
- Mild
- Mild
- Moderate
- Multiple

[Congestion TGLs = 7-10]

[Congestion TGLs = 2-9]

[Proliferation TGLs = 1-9]

[Adenoma TGLs = 4-6]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1576

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1576

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|----------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 3-4] | | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 5,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1577

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1577

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Bone Marrow
- * Intestine Large, Rectum
- * Parathyroid Gland
- Skeletal Muscle
- * Trachea
- * Brain
- * Intestine Small, Ileum
- * Prostate
- * Skin
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hyperplasia Mild
 - Hypertrophy Mild
 - Vacuolation, Cytoplasmic Mild
- * Adrenal Medulla
 - Hyperplasia Minimal
 - Pheochromocytoma Benign
- * Epididymis
 - Exfoliated Germ Cell Minimal
- * Eye
 - Retina Atrophy Minimal
- Note: Both corneas incomplete.
- * Heart
 - Cardiomyopathy Minimal
- Ventricl Rgt
 - Cardiomyopathy Minimal
- * Intestine Large, Cecum
 - Artery Inflammation Chronic Active, Mild
- * Intestine Large, Colon
 - Artery Inflammation Chronic Active, Mild
- * Intestine Small, Duodenum
 - Artery Inflammation Chronic Active, Moderate
- * Intestine Small, Jejunum
 - Artery Inflammation Chronic Active, Mild
- * Islets, Pancreatic
 - Adenoma
- [Adenoma TGLs = 3-6]
- * Kidney
 - Renal Tubule Cyst
 - Nephropathy Chronicprogr, Marked
- [Cyst TGLs = 1-13]
- [Nephropathy TGLs = 2-13]
- * Liver
 - Eosinophilic Focus
 - Bile Duct Hyperplasia Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1577

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1577

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|--------------------------------|--------------------------|
| * Lung | | Alveolar/Bronchiolar Carcinoma | |
| | [Alveolar/Bronchiolar Carcinoma TGLs = 4-20,10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | Artery | Inflammation | Chronic Active, Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Adenoma | |
| | C Cell | Hyperplasia | Moderate |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1578

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1578

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone
- * Eye
- * Intestine Large, Rectum
- * Mammary Gland
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Salivary Glands
- * Stomach, Forestomach
- * Trachea
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Seminal Vesicle
- * Stomach, Glandular
- Trigeminal Ganglion
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- Skeletal Muscle
- * Testis
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Hyperplasia
- * Aorta
 - Mineral
- * Brain
 - Meninges
 - Hyperplasia
 - Mineral
 - Pineal Gland
 - Vacuolation, Cytoplasmic
- Coagulating Gland
 - Inflammation
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
- [Cardiomyopathy TGLs = 6-11,20]
- * Islets, Pancreatic
 - Adenoma
 - Hyperplasia
- [Adenoma TGLs = 3-6]
- * Kidney
 - Urothelium
 - Hyperplasia
 - Liposarcoma
 - Nephropathy
- [Liposarcoma TGLs = 2-13,20]
- * Liver
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - Infiltration Cellular
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Lymph Node, Mesenteric
 - Lymph Sinus
 - Ectasia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1578

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1578

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-----------------------------------|-------------------------------|--------------------------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Atrophy | Mild |
| | Acinus | Hyperplasia | Mild |
| | [Hyperplasia TGLs = 3-6,14] | | |
| * Parathyroid Gland | | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| | | Infiltration Cellular | Histiocyte, Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Moderate |
| | [Dilation TGLs = 1-16] | | |
| * Prostate | | Inflammation | Chronic Active, Moderate |
| * Skin | | Keratoacanthoma | |
| | [Keratoacanthoma TGLs = 4,5-21] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1579

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1579

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Nerve Trigeminal
- * Seminal Vesicle
- * Stomach, Forestomach
- * Aorta
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Prostate
- * Skin
- * Trachea
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Cervical
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hyperplasia Moderate
 - Hypertrophy Minimal
 - Vacuolation, Cytoplasmic Mild
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy Mild
 - Cardiomyopathy Mild
- * Islets, Pancreatic
 - Adenoma
 - Carcinoma
 - [Adenoma TGLs = 4-6]
 - [Carcinoma TGLs = 4-6]
- * Kidney
 - Nephropathy Chronicprogr, Marked
- * Liver
 - Hepatocyte
 - Mixed Cell Focus
 - Vacuolation, Cytoplasmic Minimal
 - [Vacuolation, Cytoplasmic TGLs = 3-12]
- * Lung
 - Alveolus
 - Infiltration Cellular
 - [Infiltration Cellular TGLs = 5-20,10]
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia Minimal
 - Hyperplasia Lymphocyte, Minimal
 - Proliferation Plasma Cell, Minimal
- * Mammary Gland
 - Duct
 - Dilation Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1580

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1580

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mandibular | * Lymph Node, Mesenteric |
| * Parathyroid Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|-----------------------------|------------------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| | | Pheochromocytoma Benign | |
| * Eye | Cornea | Neovascularization | Minimal |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricl Rgt | Cardiomyopathy | Mild |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | | Eosinophilic Focus | |
| | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Mammary Gland | Duct | Dilation | Minimal |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Artery | Inflammation | Chronic Active, Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 2-4] | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1580

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1580

ORGAN AND ACCOUNTABLE SITE STATUS

* Spinal Cord, Thoracic

Degeneration

Mild

* Spleen

Extramedullary Hematopoiesis

Mild

Pigment

Mild

* Testis

Artery

Inflammation

Chronic Active, Minimal

* Thymus

Atrophy

Mild

Animal Note: TGI 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1582

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1582

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Prostate
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Thyroid Gland
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pituitary Gland
- Skeletal Muscle
- * Trachea

MISSING

- * Mammary Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Mineral
 - Mesothelioma Malignant
 - Cardiomyopathy
 - Cardiomyopathy
 - Nephropathy
 - Hepatocellular Adenoma
 - Mixed Cell Focus
- * Brain
- * Epididymis
- * Heart
 - Ventricl Rgt
 - Minimal
- * Kidney
- * Liver
 - [Hepatocellular Adenoma TGLs = 4-21,12]
 - Hepatocellular Adenoma
 - Alveolus
 - Infiltration Cellular
 - Mixed Cell Focus
 - Ectasia
 - Histiocyte, Minimal
- * Lung
 - Lymph Node
 - Iliac, Lymph Sinus
 - Ectasia TGLs = 3-21]
 - Moderate
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Minimal
 - Hyperplasia
 - Lymphocyte, Minimal
 - Proliferation
 - Plasma Cell, Minimal
 - Degeneration
 - Moderate
- * Nerve Trigeminal
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Mild
- * Pancreas
 - Acinus
 - Hyperplasia
 - Moderate
 - [Hyperplasia TGLs = 2-6,14]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1582

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1582

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------|------------------------------|----------|
| * Parathyroid Gland | | Adenoma | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Preputial Gland | Duct | Dilation | Moderate |
| * Skin | Subcut Tiss | Lipoma | |
| [Lipoma TGLs = 1-20.1] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| * Testis | | Mesothelioma Malignant | |
| * Thymus | | Atrophy | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1583

TRT#: 5

SEX: Male

DAY ON TEST: 595

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1583

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|----------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Preputial Gland | Duct | Dilation | Marked |
| | | Inflammation | Chronic Active, Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1584

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1584

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|----------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1585

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1585

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- Skeletal Muscle
- * Testis
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Prostate
- * Skin
- * Trachea
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Lung
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex: Hypertrophy (Mild)
- * Heart: Vacuolation, Cytoplasmic (Minimal)
- * Heart: Cardiomyopathy (Minimal)
- * Heart: Ventricl Rgt: Cardiomyopathy (Minimal)
- * Islets, Pancreatic: Hyperplasia (Mild)
- * Kidney: Nephropathy (Chronicprogr, Moderate)
- * Liver: Mixed Cell Focus
- * Lymph Node, Mandibular: Lymph Sinus: Ectasia (Mild)
- * Lymph Node, Mandibular: Lymph Sinus: Hyperplasia (Lymphocyte, Minimal)
- * Lymph Node, Mandibular: Lymph Sinus: Proliferation (Plasma Cell, Minimal)
- * Mammary Gland: Fibroadenoma TGLs = 1-20 (Fibroadenoma)
- * Nerve Trigeminal: Degeneration (Moderate)
- * Nose: Olfactory Epi: Accumulation, Hyaline Droplet (Mild)
- * Pancreas: Acinus: Hyperplasia (Marked)
- * Pancreas: [Hyperplasia TGLs = 4-6]
- * Peripheral Nerve, Sciatic: Degeneration (Moderate)
- * Peripheral Nerve, Tibial: Degeneration (Moderate)
- * Pituitary Gland: Pars Distalis: Hyperplasia (Moderate)
- * Preputial Gland: Duct: Dilatation (Moderate)

Note: One of pair available for evaluation.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1585

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1585

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|----------|
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |
| Zymbal's Gland | | Adenoma | |
| [Adenoma TGLs = 2-9] | | | |

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1586

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1586

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Lung
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Prostate
- * Stomach, Forestomach
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Glandular
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Seminal Vesicle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex [Hypertrophy TGLs = 6-7] Hypertrophy Minimal
- * Adrenal Medulla [Pheochromocytoma Benign TGLs = 5-7] Hyperplasia Pheochromocytoma Benign Minimal
- * Brain Note: Olfactory bulbs unavailable for evaluation.
- * Epididymis Exfoliated Germ Cell Minimal
- * Eye Retina Atrophy Minimal
- * Heart Ventricl Rgt Cardiomyopathy Minimal
- * Islets, Pancreatic Carcinoma Mild
- * Kidney [Carcinoma TGLs = 7-14] Hyperplasia Mild
- * Liver Nephropathy Chronicprogr, Marked
- * Lymph Node Mediastinal Mixed Cell Focus Erythrophagocytosis Moderate
- * Mammary Gland Duct [Erythrophagocytosis TGLs = 8,9,20] Dilation Mild
- * Nose [Dilation TGLs = 1-9,20] Olfactory Epi Accumulation, Hyaline Droplet Mild
- * Pancreas Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1586

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1586

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|------------------------------|--------------------------|
| [Adenoma TGLs = 7-6] [Hyperplasia TGLs = 7-6,14] | Acinus | Hyperplasia | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland [Adenoma TGLs = 10-4] | Pars Distalis | Adenoma | |
| * Preputial Gland | | Inflammation | Chronic Active, Moderate |
| Skeletal Muscle | | Degeneration | Mild |
| * Skin [Fibroma TGLs = 2-21] | Subcut Tiss | Fibroma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| * Thyroid Gland | C Cell | Adenoma | |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGLs 3,4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1587

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1587

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Prostate
- * Spleen
- Trigeminal Ganglion
- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Pituitary Gland
- Skeletal Muscle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - [Hyperplasia TGLs = 9-7]
- * Bone Marrow
 - Hypercellularity
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Epididymis
 - Exfoliated Germ Cell
 - Hypospermia
 - [Hypospermia TGLs = 7-16A]
- * Eye
 - Cornea, Epithelium
 - Cornea
 - Cornea
- * Kidney
 - Neovascularization
 - Nephropathy
- * Liver
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - Infiltration Cellular
 - [Infiltration Cellular TGLs = 10-10]
- * Lymph Node, Mandibular
 - Lymph Sinus
- * Nose
 - Olfactory Epi
- * Peripheral Nerve, Sciatic
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1587

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1587

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------------|----------------|--------------------------|--------------------------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | Duct | Dilation Inflammation | Moderate Chronic Active, Moderate |
| [Dilation TGLs = 4,5-16] | | | |
| * Skin | Subcut Tiss | Lipoma | |
| [Lipoma TGLs = 2,3-20,21] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| Testes | | | |
| Note: Altered spermatogenesis. | | | |
| * Testis | Interstit Cell | Adenoma | |
| [Adenoma TGLs = 8-16A] | | | |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGL 6 = NCL

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1588

TRT#: 5

SEX: Male

DAY ON TEST: 383

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1588

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Brain | * Epididymis | * Esophagus |
| * Eye | * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lung | * Lymph Node, Mandibular | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nerve Trigeminal | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Testis | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

MISSING

- * Preputial Gland

OBSERVATIONS

- | | | | |
|-----------------------------|-------------------------|-------------------------------|-----------------------|
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Infiltration Cellular | Mixed Cell, Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Skin | Subcut Tiss | Fibroma | |
| | [Fibroma TGLs = 1-20] | | |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| * Thymus | | Atrophy | Mild |

PRIMARY CAUSE OF DEATH

- Skin Subcut Tiss Fibroma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1589

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1589

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Mammary Gland | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | * Seminal Vesicle | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Thyroid Gland | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|------------------------------|----------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Marked |
| | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| Coagulating Gland | | Inflammation | Chronic Active, Mild |
| [Inflammation TGLs = 5-16] | | | |
| * Heart | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | | Clear Cell Focus | |
| | | Mixed Cell Focus | |
| * Lung | Epithlm Alvlus | Hyperplasia | Minimal |
| | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Mild |
| | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| [Ectasia TGLs = 6-9] | | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | Respirat Epith | Hyperplasia | Mild |
| | | Inflammation | Suppurative, Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1589

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1589

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------------|-------------|-----------------------------|---------------------------------|
| * Preputial Gland | Duct | Dilation Inflammation | Minimal Chronic Active, Mild |
| [Dilation TGLs = 2,3-16] | | | |
| [Inflammation TGLs = 4-16] | | | |
| * Prostate | Epithelium | Hyperplasia Inflammation | Mild Chronic Active, Marked |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | Subcut Tiss | Inflammation | Chronic, Mild |
| [Inflammation TGLs = 1-20] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Pigment | Minimal |
| * Thymus | | Atrophy | Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGLs 8,9,11 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1590

TRT#: 5

SEX: Male

DAY ON TEST: 393

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1590

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|-----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Mammary Gland | * Nerve Trigeminal | * Pancreas |
| * Parathyroid Gland | * Peripheral Nerve, Sciatic | * Pituitary Gland | * Preputial Gland |
| * Prostate | * Salivary Glands | Skeletal Muscle | * Skin |
| * Stomach, Glandular | * Testis | * Thyroid Gland | * Trachea |

INSUFFICIENT TISSUE

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|----------------------------|---|-------------------------------|-----------------------|
| * Bone Marrow | | Leukemia Mononuclear | |
| * Brain | | Leukemia Mononuclear | |
| | Pineal Gland | Vacuolation, Cytoplasmic | Minimal |
| | [Leukemia Mononuclear TGLs = 8-2] | | |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | Hepatocyte | Necrosis | Minimal |
| * Lung | | Hemorrhage | Moderate |
| | [Hemorrhage TGLs = 6-10] | | |
| Lymph Node | Mediastinal | Extramedullary Hematopoiesis | Mild |
| | Note: Some of the hematopoietic cells are necrotic. | | |
| | [Extramedullary Hematopoiesis TGLs = 9-20] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Prostate | | | |
| | Note: No correlate to TGL 1 "enlarged" | | |
| * Seminal Vesicle | Lumen | Hemorrhage | Mild |
| | | Inflammation | Acute, Minimal |
| | [Hemorrhage TGLs = 2-16] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1590

TRT#: 5

SEX: Male

DAY ON TEST: 393

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1590

ORGAN AND ACCOUNTABLE SITE STATUS

- * Spinal Cord, Cervical
- * Spinal Cord, Lumbar
- * Spinal Cord, Thoracic
- * Spleen

Leukemia Mononuclear
 Leukemia Mononuclear
 Leukemia Mononuclear
 Extramedullary Hematopoiesis
 Leukemia Mononuclear

Marked

Note: Necrosis of hematopoietic cells

[Extramedullary Hematopoiesis TGLs = 5-12]

[Leukemia Mononuclear TGLs = 10-12]

- * Stomach, Forestomach
- * Thymus
- * Urinary Bladder

Inflammation
 Atrophy
 Hemorrhage

Acute, Minimal
 Moderate
 Marked

[Hemorrhage TGLs = 3,4-13]

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Animal Note: TGL 7 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1591

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1591

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Seminal Vesicle
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- Skeletal Muscle
- * Testis
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Prostate
- * Skin
- * Thyroid Gland
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Mammary Gland
- * Salivary Glands
- * Stomach, Forestomach
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
- * Eye
- * Heart
- * Islets, Pancreatic
- * Kidney
- * Liver
- * Lung
- * Lymph Node, Mandibular
- * Nose
- * Pancreas
- [Adenoma TGLs = 3-6]
- [Hyperplasia TGLs = 3-6]
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Preputial Gland
- [Dilation TGLs = 1,2-16]
- Retina
- Ventricl Rgt
- Alveolus
- Olfactory Epi
- Acinus
- Pars Distalis
- Duct
- Hypertrophy
- Atrophy
- Cardiomyopathy
- Cardiomyopathy
- Hyperplasia
- Nephropathy
- Eosinophilic Focus
- Mixed Cell Focus
- Infiltration Cellular
- Hyperplasia
- Proliferation
- Accumulation, Hyaline Droplet
- Adenoma
- Hyperplasia
- Degeneration
- Degeneration
- Adenoma
- Dilation
- Minimal
- Minimal
- Mild
- Minimal
- Minimal
- Chronicprogr, Mild
- Histiocyte, Minimal
- Lymphocyte, Mild
- Plasma Cell, Mild
- Moderate
- Marked
- Marked
- Moderate
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1591

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1591

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------|------------------------------|---------|
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1592

TRT#: 5

SEX: Male

DAY ON TEST: 606

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1592

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Bone | * Epididymis | * Esophagus |
| * Eye | * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Salivary Glands | * Seminal Vesicle | * Skin |
| * Stomach, Forestomach | * Thyroid Gland | * Trachea | Trigeminal Ganglion |

MISSING

- * Mammary Gland

OBSERVATIONS

- | | | | |
|--------------------------|--|-------------------------------|----------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| | | Leukemia Mononuclear | |
| * Aorta | | Leukemia Mononuclear | |
| * Bone Marrow | | Leukemia Mononuclear | |
| * Brain | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLs = 3-1,2] | | |
| * Eye | | | |
| | Note: Retina largely absent for one eye. | | |
| * Heart | Ventricle Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 4-13] | | |
| * Liver | | Leukemia Mononuclear | |
| * Lung | | Leukemia Mononuclear | |
| Lymph Node | Mediastinal | Leukemia Mononuclear | |
| * Lymph Node, Mandibular | | Leukemia Mononuclear | |
| * Lymph Node, Mesenteric | | Leukemia Mononuclear | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Marked |
| | | Leukemia Mononuclear | |
| * Parathyroid Gland | | Hyperplasia | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1592

TRT#: 5

SEX: Male

DAY ON TEST: 606

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1592

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--------------------------------------|----------------------|-------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Prostate | Epithelium | Hyperplasia | Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Leukemia Mononuclear | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Leukemia Mononuclear | |
| * Spinal Cord, Thoracic | | Leukemia Mononuclear | |
| * Spleen | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLs = 1-12] | | |
| * Stomach, Glandular | | Leukemia Mononuclear | |
| * Testis | Germ Cell | Degeneration | Minimal |
| * Thymus | | Atrophy | Moderate |
| * Urinary Bladder | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLs = 2-12] | | |

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1593

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1593

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Salivary Glands
- * Testis
- * Urinary Bladder
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Thyroid Gland
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Stomach, Forestomach
- * Trachea
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Stomach, Glandular
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Adrenal Medulla
 - Pheochromocytoma Benign
 - Pheochromocytoma Malignant
- [Pheochromocytoma Malignant TGLs = 6,7-7]
- * Bone Marrow
 - Pheochromocytoma Malignant
- * Epididymis
 - Inflammation
- * Eye
 - Retina
 - Cornea
 - Cornea
- * Heart
 - Ventricle Rgt
 - Cardiomyopathy
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- [Nephropathy TGLs = 5-13]
- * Liver
 - Bile Duct
 - Hyperplasia
 - Mixed Cell Focus
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Hyperplasia
 - Proliferation
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1593

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1593

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------------|---------------|------------------------------|----------------------|
| * Pancreas | Acinus | Atrophy | Minimal |
| | Acinus | Hyperplasia | Marked |
| [Hyperplasia TGLs = 8-6] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| [Hyperplasia TGLs = 9-4] | | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Mild |
| [Dilation TGLs = 2,3-16] | | | |
| * Prostate | | Inflammation | Chronic Active, Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | | Inflammation | Chronic Active, Mild |
| [Inflammation TGLs = 1-20] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1594

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1594

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nerve Trigeminal | * Prostate | * Salivary Glands |
| * Seminal Vesicle | Skeletal Muscle | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|-------------------|--|--------------------------|----------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Marked |
| | | Pheochromocytoma Benign | |
| | [Hyperplasia TGLs = 7-7] | | |
| | [Pheochromocytoma Benign TGLs = 7-7] | | |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Cyst | |
| | Renal Tubule | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 8,9-13] | | |
| * Liver | | Hepatocellular Adenoma | |
| | | Hepatocellular Carcinoma | |
| | Hepatocyte | Necrosis | Moderate |
| | [Hepatocellular Adenoma TGLs = 4-12] | | |
| | [Hepatocellular Carcinoma TGLs = 6-20] | | |
| | [Necrosis TGLs = 5-12] | | |
| * Lung | | Infiltration Cellular | Histiocyte, Minimal |
| | Alveolus | | |
| | [Infiltration Cellular TGLs = 13-10] | | |
| Lymph Node | | Erythrophagocytosis | Moderate |
| | Renal | Hyperplasia | Lymphocyte, Minimal |
| | Mediastinal | | |
| | [Erythrophagocytosis TGLs = 10-21] | | |
| | [Hyperplasia TGLs = 11-6] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1594

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1594

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|-------------------------------|--------------------------------|
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia Proliferation | Marked Plasma Cell, Minimal |
| [Ectasia TGLs = 1-20] | | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Minimal |
| | Artery | Inflammation | Chronic Active, Minimal |
| * Parathyroid Gland | | Hyperplasia | Mild |
| [Hyperplasia TGLs = 12-8] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Preputial Gland | Duct | Dilation | Moderate |
| [Dilation TGLs = 2,3-16] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Adenoma | |

Animal Note: TGL 14 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1597

TRT#: 5

SEX: Male

DAY ON TEST: 604

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1597

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|------------------------|--------------------------|-------------------------|-----------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Esophagus | * Harderian Gland | * Islets, Pancreatic |
| * Liver | * Lymph Node, Mesenteric | * Nerve Trigeminal | * Salivary Glands |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Spinal Cord, Lumbar |
| * Stomach, Forestomach | * Stomach, Glandular | * Trachea | Trigeminal Ganglion |
| * Urinary Bladder | | | |

MISSING

- * Parathyroid Gland

AUTO PRECLUDES DIAG.

- | | | | |
|--------------------------|----------------------------|--------------------------|---------------------------|
| * Eye | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Thyroid Gland | |

OBSERVATIONS

- | | | | |
|---|----------------------------------|-------------------------------|----------------------|
| * Brain | | Meningioma Benign Necrosis | Minimal |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Intestine Small, Duodenum | Artery | Inflammation | Chronic Active, Mild |
| * Kidney | Bilateral, Renal Tubule | Carcinoma | |
| | Renal Tubule | Hyperplasia | Atypical, Marked |
| | | Nephropathy | Chronicprogr, Marked |
| | [Carcinoma TGLs = 2,3,4,11-13] | | |
| * Lung | | Congestion | Mild |
| | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | Artery | Inflammation | Chronic Active, Mild |
| | [Congestion TGLs = 5-10] | | |
| Lymph Node | Iliac | Pigment | Mild |
| | [Pigment TGLs = 8-20] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1597

TRT#: 5

SEX: Male

DAY ON TEST: 604

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1597

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|-------------------------------|---------------------------|
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia Proliferation | Mild Plasma Cell, Mild |
| * Mammary Gland [Dilation TGLs = 1-9] | Duct | Dilation | Mild |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland [Adenoma TGLs = 9-4] | Pars Distalis | Adenoma | |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| * Prostate | Artery | Inflammation | Chronic Active, Moderate |
| * Seminal Vesicle [Decreased Secretory Fluid TGLs = 10-16] | | Decreased Secretory Fluid | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Pigment | Moderate |
| * Testis | | Hemangioma | |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

CONTRIBUTORY CAUSE OF DEATH - Kidney Bilateral Renal Tubule Carcinoma

Animal Note: TGLs 6,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1599

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1599

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Seminal Vesicle
- * Thyroid Gland
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Stomach, Forestomach
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Parathyroid Gland
- * Stomach, Glandular
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Testis

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Vacuolation, Cytoplasmic
 Mild
Minimal
- * Adrenal Medulla
 - Hyperplasia
 Moderate
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Eye
 - Cornea
 Neovascularization
Minimal
- * Heart
 - Ventricl Rgt
 Cardiomyopathy
Minimal
- * Kidney
 - Nephropathy
 Chronicprogr, Minimal
- * Liver
 - Mixed Cell Focus
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 Lymphocyte, Minimal
Plasma Cell, Minimal
- * Nerve Trigeminal
 - Degeneration
 Mild
- * Nose
 - Olfactory Epi
 Accumulation, Hyaline Droplet
Mild
- * Peripheral Nerve, Sciatic
 - Degeneration
 Marked
- * Peripheral Nerve, Tibial
 - Degeneration
 Marked
- * Pituitary Gland
 - Pars Distalis
 - Pars Distalis
 Cyst
Hyperplasia
Mild
- * Preputial Gland
 - Inflammation
 Chronic Active, Mild
- * Prostate
 - Inflammation
 Chronic Active, Minimal
- * Skeletal Muscle
 - Degeneration
 Minimal
- * Skin
 - Inflammation
 Chronic Active, Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1599

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1599

ORGAN AND ACCOUNTABLE SITE STATUS

Keratoacanthoma

Subcut Tiss

Necrosis

Marked

Ulcer

Marked

[Inflammation TGLs = 1-20]

[Keratoacanthoma TGLs = 2-21]

[Necrosis TGLs = 3-22]

* Spinal Cord, Cervical

Degeneration

Minimal

* Spinal Cord, Lumbar

Nerve

Degeneration

Moderate

* Spinal Cord, Thoracic

Degeneration

Mild

* Spleen

Extramedullary Hematopoiesis

Mild

* Thymus

Pigment

Mild

Atrophy

Minimal

Cyst

Trigeminal Ganglion

Degeneration

Minimal

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1600

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1600

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric | * Mammary Gland |
| * Pancreas | * Preputial Gland | * Prostate | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|---|--------------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Epididymis | | Exfoliated Germ Cell | Mild |
| | | Hypospermia | Mild |
| * Eye | Cornea, Epithelium | Hyperplasia | Minimal |
| | Cornea | Inflammation | Acute, Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| * Liver | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| Mesentery | | Neovascularization | Moderate |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Parathyroid Gland | | Hyperplasia | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1600

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1600

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------------|------------------------------|----------------------|
| | [Hyperplasia TGLs = 2-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | [Cyst TGLs = 3-4] | | |
| * Salivary Glands | Sublingual GI | Atrophy | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| | [Degeneration TGLs = 1-16A] | | |
| * Thymus | | Atrophy | Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1602

TRT#: 5

SEX: Male

DAY ON TEST: 677

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1602

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------------------------|--|--|
| * Nose | Olfactory Epi Respirat Epith | Accumulation, Hyaline Droplet Hyperplasia Inflammation | Moderate Mild Suppurative, Minimal |
| Note: Approximately one-quarter of Level 3 available for evaluation. | | | |
| * Pancreas | Acinus Artery | Hyperplasia Inflammation | Mild Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Salivary Glands | Duct, Parotid GI | Dilation | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spleen | White Pulp Red Pulp | Atrophy Atrophy Pigment | Moderate Moderate Mild |
| [Atrophy TGLs = 6-12] | | | |
| * Stomach, Glandular | | Mineral Necrosis | Moderate Minimal |
| * Testis | Germ Cell Artery | Degeneration Inflammation | Moderate Chronic Active, Mild |
| [Degeneration TGLs = 1-16A] | | | |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Adenoma | |
| [Adenoma TGLs = 10-8] | | | |
| Trigeminal Ganglion | | Degeneration | Mild |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 4,5 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1604

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1604

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Stomach, Forestomach
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Testis
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- Skeletal Muscle
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Hyperplasia
- * Bone Marrow
 - Hypercellularity
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Epididymis
 - Artery
 - Inflammation
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- * Liver
 - Bile Duct
 - Eosinophilic Focus
 - Hyperplasia
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - Infiltration Cellular TGLs = 4-10]
 - Lymph Node
 - Pancreatic
 - [Erythrophagocytosis TGLs = 3-6]
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Pancreas
 - Acinus
 - Atrophy
 - Acinus
 - Hyperplasia
- * Peripheral Nerve, Sciatic
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1604

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1604

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---|-------------------------|----------|
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Preputial Gland | Duct | Dilation | Minimal |
| * Prostate | Epithelium | Hyperplasia | Mild |
| * Skin | | Squamous Cell Carcinoma | |
| | [Squamous Cell Carcinoma TGLs = 1-20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Congestion | Moderate |
| | | Necrosis | Minimal |
| | [Congestion TGLs = 2-12] | | |
| * Thymus | | Atrophy | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1605

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1605

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Stomach, Glandular
Trigeminal Ganglion
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Prostate
- * Testis
- * Urinary Bladder
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Thyroid Gland
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Skin
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Pheochromocytoma Benign
- * Eye
 - Retina
 - Atrophy
 - Note: Lens only available for one eye.
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- * Liver
 - Clear Cell Focus
 - Hepatocellular Adenoma
 - Bile Duct
 - Hyperplasia
 - Mixed Cell Focus
- * Lung
 - [Hepatocellular Adenoma TGLs = 3-12]
 - Alveolus
 - Infiltration Cellular
 - [Infiltration Cellular TGLs = 4-10]
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Hyperplasia
 - Proliferation
 - [Ectasia TGLs = 2-9]
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Pancreas
 - Acinus
 - Adenoma
 - Hyperplasia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1606

TRT#: 5

SEX: Male

DAY ON TEST: 711

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1606

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---|---------------------------|----------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Skin | | Cyst Epithelial Inclusion | |
| | [Cyst Epithelial Inclusion TGLs = 1-20] | | |
| * Spinal Cord, Cervical | Meninges | Inflammation | Suppurative, Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| | Meninges | Inflammation | Suppurative, Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | | Pigment | Moderate |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Moderate |

PRIMARY CAUSE OF DEATH - Heart Thrombus

Animal Note: Widespread intravascular bacterial colonies.

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1607

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1607

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------------|-------------|------------------------------|------------------------|
| [Dilation TGLs = 2-16] | | | |
| Skeletal Muscle | | Inflammation | Chronic Active, Marked |
| [Inflammation TGLs = 4-21] | | | |
| * Skin | Subcut Tiss | Fibroma | |
| [Fibroma TGLs = 1-20] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Basal Cell, Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Ectopic Parathyroid Gland | |
| * Thyroid Gland | C Cell | Adenoma | |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1608

TRT#: 5

SEX: Male

DAY ON TEST: 694

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1608

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Eye
- * Intestine Small, Ileum
- * Pancreas
- * Thyroid Gland
- * Bone
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Parathyroid Gland
- * Trachea
- * Bone Marrow
- * Intestine Large, Rectum
- * Lung
- * Skin
- Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex: Hyperplasia (Minimal), Hypertrophy (Mild)
- * Brain: Compression (Mild)
Note: Olfactory bulbs unavailable for evaluation.
[Compression TGLs = 11-2]
- Ductus Deferens: Leiomyoma
- * Epididymis: Exfoliated Germ Cell (Minimal)
- * Harderian Gland: Atrophy (Minimal)
- * Heart: Cardiomyopathy (Mild)
- * Kidney: Ventricl Rgt, Cardiomyopathy (Mild), Nephropathy (Chronicprogr, Marked)
[Nephropathy TGLs = 9-13]
- * Liver: Bile Duct, Hepatocyte, Mediastinal, Mediastinal (Hyperplasia, Necrosis, Erythrophagocytosis, Hemorrhage)
[Hemorrhage TGLs = 6,7-20]
- * Lymph Node, Mandibular: Proliferation (Plasma Cell, Moderate)
- * Mammary Gland: Duct, Dilation (Mild)
[Dilation TGLs = 1-9]
- * Nerve Trigeminal: Degeneration (Mild)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1608

TRT#: 5

SEX: Male

DAY ON TEST: 694

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1608

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------------------------|--|--------------------------------------|
| * Nose | Olfactory Epi Respirat Epith | Accumulation, Hyaline Droplet Hyperplasia Inflammation | Mild Mild Suppurative, Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland [Adenoma TGLs = 10-4] | Pars Distalis | Adenoma | |
| * Preputial Gland | Duct | Dilation Inflammation | Mild Chronic Active, Mild |
| * Prostate [Decreased Secretory Fluid TGLs = 3-16] | Artery | Decreased Secretory Fluid Inflammation | Mild Chronic Active, Mild |
| * Salivary Glands | Parotid Gl | Atrophy | Mild |
| * Seminal Vesicle [Decreased Secretory Fluid TGLs = 2-16] | | Decreased Secretory Fluid | Moderate |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration Degeneration | Marked Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy Pigment | Minimal Marked |
| * Stomach, Forestomach | Epithelium | Hyperplasia Inflammation | Moderate Chronic Active, Mild |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 4,5,8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1609

TRT#: 5

SEX: Male

DAY ON TEST: 495

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1609

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|--------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic | * Lung |
| * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Preputial Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Spinal Cord, Thoracic |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

MISSING

- * Mammary Gland

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- | | | | |
|-----------------------------|---------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| * Testis | Germ Cell | Degeneration | Minimal |
| * Thymus | | Atrophy | Minimal |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1609

TRT#: 5

SEX: Male

DAY ON TEST: 495

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1609

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1610

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1610

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-----------|------------------------------|-------------------------|
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| * Prostate | | Inflammation | Chronic Active, Mild |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Testis | Germ Cell | Degeneration | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Ectopic Parathyroid Gland | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1611

TRT#: 5

SEX: Male

DAY ON TEST: 698

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1611

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Intestine Large, Colon
- * Pancreas
- * Stomach, Glandular
- * Bone
- * Intestine Small, Ileum
- * Pituitary Gland
- * Thyroid Gland
- * Esophagus
- * Islets, Pancreatic
- * Skin
- * Trachea
- * Harderian Gland
- * Liver
- * Stomach, Forestomach
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
 - Thrombus Moderate
 - Vacuolation, Cytoplasmic Mild
- * Adrenal Medulla
 - Pheochromocytoma Benign Multiple
- * Bone Marrow
 - Hemorrhage Moderate
- * Brain
 - Pineal Gland
 - Mineral Minimal
 - Pineal Gland
 - Vacuolation, Cytoplasmic Mild
- * Epididymis
 - Exfoliated Germ Cell Mild
- * Eye
 - Cornea, Epithelium
 - Hyperplasia Minimal
 - Cornea
 - Inflammation Acute, Mild
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy Moderate
 - Cardiomyopathy Minimal
 - Thrombus Marked
- * Kidney
 - [Thrombus TGLs = 8,11-11]
 - [Nephropathy TGLs = 6-13]
 - Nephropathy
 - Chronicprogr, Marked
- * Lung
 - Congestion Mild
 - Alveolus
 - Infiltration Cellular Histiocyte, Marked
 - [Congestion TGLs = 7-10]
- * Lymph Node, Mandibular
 - Hyperplasia Lymphocyte, Mild
 - Proliferation Plasma Cell, Mild
- * Lymph Node, Mesenteric
 - Erythrophagocytosis Mild
- * Mammary Gland
 - Atrophy Mild
- * Nerve Trigeminal
 - Degeneration Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1611

TRT#: 5

SEX: Male

DAY ON TEST: 698

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1611

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|--------------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 1-16] | | |
| * Prostate | | Decreased Secretory Fluid | Mild |
| | | Inflammation | Acute, Moderate |
| | [Decreased Secretory Fluid TGLs = 5-16] | | |
| * Salivary Glands | Parotid GI | Atrophy | Marked |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | | Inflammation | Acute, Mild |
| | [Decreased Secretory Fluid TGLs = 4-16] | | |
| Skeletal Muscle | | Degeneration | Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Moderate |
| | Red Pulp | Atrophy | Moderate |
| | | Pigment | Moderate |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Marked |
| | | Ectopic Parathyroid Gland | |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Heart Thrombus

Animal Note: TGLs 2,3,9 = NCL (No Corresponding Lesion)

Animal Note: TGL 10 = NST (No Section Taken)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1612

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1612

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Preputial Gland
- * Thyroid Gland
- * Esophagus
- * Intestine Small, Duodenum
- * Liver
- * Skin
- * Trachea
- * Harderian Gland
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Spinal Cord, Cervical
- Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum

OBSERVATIONS

- * Adrenal Cortex
 - Necrosis Mild
 - Vacuolation, Cytoplasmic Mild
- * Bone
 - Fibrous Osteodystrophy Moderate
- * Bone Marrow
 - Hemorrhage Mild
- * Brain
 - Pineal Gland
 - Vacuolation, Cytoplasmic Minimal
 - Note: Olfactory bulbs unavailable for evaluation.
- * Epididymis
 - Exfoliated Germ Cell Moderate
 - Hypospermia Marked
- [Hypospermia TGLs = 4-16A]
- * Eye
 - Cornea, Epithelium
 - Hyperplasia Mild
 - Antr Chamber
 - Inflammation Acute, Minimal
 - Cornea
 - Inflammation Acute, Moderate
- [Inflammation TGLs = 24-5]
- * Heart
 - Cardiomyopathy Mild
 - Ventricle Rgt
 - Cardiomyopathy Minimal
 - Atrium Lft
 - Mineral Minimal
- [Cardiomyopathy TGLs = 17-11]
- * Kidney
 - Pelvis
 - Dilation Minimal
 - Nephropathy Chronicprogr, Marked
- [Dilation TGLs = 9-13]
- [Nephropathy TGLs = 6,7,8-13]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1612

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1612

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|-------------------------------|----------------------|
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Marked |
| | [Infiltration Cellular TGLs = 16-10] | | |
| Lymph Node | Renal | Erythrophagocytosis | Moderate |
| | Mediastinal | Erythrophagocytosis | Moderate |
| | [Erythrophagocytosis TGLs = 10,11-20] | | |
| | [Erythrophagocytosis TGLs = 14-6] | | |
| * Mammary Gland | | Atrophy | Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| | | Inflammation | Suppurative, Minimal |
| * Pancreas | Acinus | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 19-6] | | |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| | [Hyperplasia TGLs = 15-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Intermed | Cyst | |
| * Prostate | | Decreased Secretory Fluid | Mild |
| | [Decreased Secretory Fluid TGLs = 25-16] | | |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| | | Developmental Malformation | |
| | Note: Malformation appears to be a duplicate gland with normal morphology. | | |
| | [Decreased Secretory Fluid TGLs = 2-16] | | |
| | [Developmental Malformation TGLs = 3-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Moderate |
| | Red Pulp | Atrophy | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1612

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1612

ORGAN AND ACCOUNTABLE SITE STATUS

Pigment

Mild

[Atrophy TGLs = 5-12]

* Stomach, Glandular

Erosion

Minimal

Mineral

Minimal

* Testis

Germ Cell

Degeneration

Marked

Artery

Inflammation

Chronic Active, Mild

[Degeneration TGLs = 1-16A]

* Thymus

Atrophy

Marked

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 13,18,20,21,22,23,26 = NCL (No Corresponding Lesion)

Animal Note: TGL 12 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1614

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1614

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Aorta
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Seminal Vesicle
- * Thyroid Gland
- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- Skeletal Muscle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hyperplasia
 - Mild
- * Brain
 - Meninges
 - Pineal Gland
 - Granular Cell Tumor Benign
 - Vacuolation, Cytoplasmic
 - Minimal
 - Hypospermia
 - Marked
- * Epididymis
 - [Hypospermia TGLs = 4-16A]
- * Eye
 - Retina
 - Atrophy
 - Minimal
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Minimal
 - Cardiomyopathy
 - Minimal
 - Carcinoma
- * Islets, Pancreatic
 - [Carcinoma TGLs = 5-6]
- * Kidney
 - Renal Tubule
 - Hyperplasia
 - Atypical, Moderate
 - Lipoma
 - Nephropathy
 - Chronicprogr, Mild
 - Hyperplasia
 - Minimal
 - Mixed Cell Focus
- * Liver
 - Bile Duct
 - Hyperplasia
 - Minimal
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - Infiltration Cellular
 - Histiocyte, Minimal
 - [Infiltration Cellular TGLs = 6-10]
- * Nerve Trigeminal
 - Degeneration
 - Minimal
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Mild
 - Foreign Body
 - Respirat Epith
 - Hyperplasia
 - Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1614

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1614

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------------|------------------------------|----------------------|
| * Peripheral Nerve, Sciatic | | Inflammation | Suppurative, Minimal |
| | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Intermed | Cyst | |
| | Pars Distalis | Hyperplasia | Moderate |
| | [Hyperplasia TGLs = 7-4] | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 2-16] | | |
| * Prostate | | Inflammation | Chronic Active, Mild |
| * Skin | Subcut Tiss | Fibroma | |
| | [Fibroma TGLs = 1-20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | Germ Cell | Degeneration | Marked |
| | [Degeneration TGLs = 3-16A] | | |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1615

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1615

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Esophagus | * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Mammary Gland | * Pancreas | * Parathyroid Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

| | | | |
|-----------------------------|------------------------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Mild |
| * Brain | Pineal Gland | Mineral | Minimal |
| | Pineal Gland | Vacuolation, Cytoplasmic | Mild |
| * Epididymis | | Hypospermia | Marked |
| | [Hypospermia TGLs = 3-16A] | | |
| * Eye | Retina | Atrophy | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Moderate |
| | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Minimal |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Preputial Gland | Duct | Dilation | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1615

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1615

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|-----------|------------------------------|---------|
| [Dilation TGLs = 1-16] | | | |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | Germ Cell | Degeneration | Marked |
| [Degeneration TGLs = 2-16A] | | | |
| * Thymus | | Atrophy | Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1616

TRT#: 5

SEX: Male

DAY ON TEST: 647

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1616

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Epididymis |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Mammary Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Stomach, Glandular | * Thyroid Gland | * Trachea | Trigeminal Ganglion |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|-----------------------------|----------------------------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Minimal |
| * Bone Marrow | | Hypercellularity | Minimal |
| * Brain | Pineal Gland | Vacuolation, Cytoplasmic | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| | [Nephropathy TGLs = 3-13] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | [Mixed Cell Focus TGLs = 1-12] | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Minimal |
| * Parathyroid Gland | | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Intermed | Cyst | |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1616

TRT#: 5

SEX: Male

DAY ON TEST: 647

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1616

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------|-------------|------------------------------|---------------------|
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| * Testis | Seminif Tub | Dilation | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1617

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1617

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Bone Marrow |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nerve Trigeminal | * Parathyroid Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|---|-------------------------------|-------------------------------|----------------------|
| * Adrenal Medulla | | Pheochromocytoma Benign | |
| * Brain | | Compression | Minimal |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| | [Compression TGLs = 8-2] | | |
| * Heart | | Cardiomyopathy | Minimal |
| | Myocardium | Schwannoma Malignant | |
| * Kidney | Renal Tubule | Cyst | |
| | | Nephropathy | Chronicprogr, Marked |
| | [Cyst TGLs = 3,4-20,21] | | |
| * Liver | | Eosinophilic Focus | |
| * Lung | | Alveolar/Bronchiolar Adenoma | |
| Lymph Node | Iliac | Hyperplasia | Lymphocyte, Minimal |
| | [Hyperplasia TGLs = 5-20] | | |
| * Lymph Node, Mandibular | | Erythrophagocytosis | Minimal |
| | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | | Adenoma | Multiple |
| | Acinus | Hyperplasia | Mild |
| | [Adenoma TGLs = 6-6] | | |
| | [Hyperplasia TGLs = 6-6,14] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1617

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1617

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|-------------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 9-4] | | | |
| * Preputial Gland | Duct | Dilation | Marked |
| [Dilation TGLs = 2,10-16] | | Inflammation | Chronic Active, Minimal |
| * Skin | Subcut Tiss | Fibroma | |
| [Fibroma TGLs = 1-21] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Minimal |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1618

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1618

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Prostate
- * Skin
- Trigeminal Ganglion
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Lung
- * Salivary Glands
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- Skeletal Muscle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Pheochromocytoma Benign
- * Epididymis
 - Exfoliated Germ Cell
 - Hypospermia
- [Hypospermia TGLs = 2-16A]
- * Harderian Gland
 - Inflammation
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- * Liver
 - Eosinophilic Focus
 - Mixed Cell Focus
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Hyperplasia
 - Proliferation
- * Lymph Node, Mesenteric
 - Hyperplasia
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Pancreas
 - Acinus
 - Hyperplasia
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration
- * Pituitary Gland
 - Pars Distalis
 - Hyperplasia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1618

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1618

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|------------|------------------------------|--------------------------|
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Moderate |
| | | Ulcer | Mild |
| Testes | | | |
| Note: Seminiferous tubules are highly cellular however there are few to elongating/mature spermatids present. | | | |
| * Testis | Germ Cell | Degeneration | Marked |
| [Degeneration TGLs = 1-16A] | | | |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Adenoma | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1619

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1619

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Aorta | * Bone | * Brain | * Epididymis |
| * Esophagus | * Eye | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Lung | * Lymph Node, Mesenteric | * Mammary Gland | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Seminal Vesicle | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|-----------------------------|------------------------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Bone Marrow | | Hypercellularity | Minimal |
| * Harderian Gland | | Inflammation | Granulomatous, Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricle Rgt | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Carcinoma | |
| | [Carcinoma TGLs = 3-6] | | |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Atrophy | Minimal |
| | Duct | Inflammation | Acute, Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | | Inflammation | Chronic Active, Marked |
| | [Inflammation TGLs = 1-16] | | |
| * Prostate | | Inflammation | Chronic Active, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1619

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1619

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|----------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Adenoma | |

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1620

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1620

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung |
| * Lymph Node, Mesenteric | * Mammary Gland | * Parathyroid Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular | * Testis |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|-----------------------------|---------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| * Adrenal Medulla | | Hyperplasia | Marked |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Liver | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | | | |
| [Adenoma TGLs = 3-4] | | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | | |
| [Dilation TGLs = 1-16] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1620

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1620

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Mild

* Thyroid Gland

C Cell

Hyperplasia

Minimal

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1622

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1622

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Prostate
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Salivary Glands
- * Stomach, Glandular
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Parathyroid Gland
- * Seminal Vesicle
- * Testis
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Preputial Gland
- Skeletal Muscle
- * Trachea

MISSING

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Eye
- * Heart
- * Kidney
- * Liver
- * Lymph Node, Mandibular
- * Nose
- * Pancreas
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Skin
- * Spinal Cord, Cervical
- Retina
- Myocardium
- Bile Duct
- Olfactory Epi
- Acinus
- Pars Distalis
- Subcut Tiss
- [Fibrosarcoma TGLs = 1-20]
- Hyperplasia
- Hypertrophy
- Hypercellularity
- Atrophy
- Cardiomyopathy
- Schwannoma Malignant
- Nephropathy
- Hyperplasia
- Mixed Cell Focus
- Hyperplasia
- Proliferation
- Accumulation, Hyaline Droplet
- Hyperplasia
- Degeneration
- Degeneration
- Hyperplasia
- Fibrosarcoma
- Degeneration
- Mild
- Mild
- Marked
- Minimal
- Mild
- Chronicprogr, Mild
- Mild
- Lymphocyte, Mild
- Plasma Cell, Minimal
- Mild
- Mild
- Moderate
- Moderate
- Mild
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1622

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1622

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|---------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Adenoma | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1623

TRT#: 5

SEX: Male

DAY ON TEST: 614

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1623

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|------------------------|
| * Bone Marrow | * Brain | * Esophagus | * Harderian Gland |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic |
| * Liver | * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Mammary Gland |
| * Pituitary Gland | * Prostate | * Salivary Glands | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- * Parathyroid Gland

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- | | | | |
|--------------------------|------------------------------------|--------------------------|-------------------------|
| * Adrenal Cortex | | Vacuolation, Cytoplasmic | Mild |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Aorta | | Mineral | Moderate |
| * Bone | | Fibrous Osteodystrophy | Mild |
| * Epididymis | | Exfoliated Germ Cell | Mild |
| * Eye | Cornea, Epithelium | Hyperplasia | Mild |
| | Cornea | Inflammation | Acute, Mild |
| * Heart | | Cardiomyopathy | Moderate |
| * Intestine Large, Cecum | Artery | Inflammation | Chronic Active, Mild |
| | Artery | Necrosis | Marked |
| | | Thrombus | Marked |
| | [Necrosis TGLs = 3-15] | | |
| * Intestine Large, Colon | Artery | Inflammation | Chronic Active, Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 7,8-13] | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| Lymph Node | Mediastinal | Erythrophagocytosis | Moderate |
| | [Erythrophagocytosis TGLs = 5-6] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1623

TRT#: 5

SEX: Male

DAY ON TEST: 614

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1623

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|---------------|-------------------------------|-------------------------|
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| | Vein | Inflammation | Chronic Active, Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Marked |
| | Artery | Inflammation | Chronic Active, Mild |
| [Hyperplasia TGLs = 1-20RT] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Mild |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 2,4 = NCL (No Corresponding Lesion)

Animal Note: TGL 9 = NST (No Section Taken)

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1624

TRT#: 5

SEX: Male

DAY ON TEST: 726

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1624

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Mammary Gland
- * Stomach, Glandular
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Parathyroid Gland
- * Thyroid Gland
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Salivary Glands
- * Trachea
- * Brain
- * Intestine Large, Colon
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Ileum

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Hyperplasia
- * Epididymis
 - Exfoliated Germ Cell
- * Heart
 - Cardiomyopathy
- * Islets, Pancreatic
 - Carcinoma
- * Kidney
 - [Carcinoma TGLs = 7-21]
 - Nephropathy
 - [Nephropathy TGLs = 3-13]
- * Liver
 - Hepatocyte
 - Vacuolation, Cytoplasmic
- * Lung
 - Congestion
 - Alveolus
 - Infiltration Cellular
 - [Congestion TGLs = 6-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Pancreas
 - Note: Level 3 damaged.
 - Adenoma
 - Acinus
 - Hyperplasia
 - Artery
 - Inflammation
 - [Adenoma TGLs = 8,9-6,22]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1624

TRT#: 5

SEX: Male

DAY ON TEST: 726

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1624

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|---------------------------|-------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Preputial Gland | Duct | Dilation | Moderate |
| | [Dilation TGLs = 1-16] | | |
| * Prostate | | Decreased Secretory Fluid | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| | [Decreased Secretory Fluid TGLs = 5-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | | Keratoacanthoma | |
| | [Keratoacanthoma TGLs = 4-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Pigment | Moderate |
| | [Atrophy TGLs = 2-12] | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Marked |
| | | Hemorrhage | Mild |
| Tissue NOS | Fat | Necrosis | Moderate |
| | Note: Present on slide 6. | | |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 11,13 = NCL (No Corresponding Lesion)

Animal Note: TGL 12 = NST (No Section Taken)

Animal Note: TGL 10 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1625

TRT#: 5

SEX: Male

DAY ON TEST: 652

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1625

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Intestine Large, Colon
- * Lung
- * Seminal Vesicle
- Trigeminal Ganglion
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Skin
- * Urinary Bladder
- * Eye
- * Intestine Small, Duodenum
- * Mammary Gland
- * Stomach, Glandular
- * Harderian Gland
- * Intestine Small, Jejunum
- * Prostate
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - * Adrenal Medulla
 - * Bone
 - * Bone Marrow
 - * Brain
 - * Epididymis
 - * Heart
 - * Intestine Large, Cecum
 - [Erosion TGLs = 10-15]
 - * Intestine Small, Ileum
 - [Hemorrhage TGLs = 9-15]
 - * Islets, Pancreatic
 - * Kidney
 - [Nephropathy TGLs = 2-13]
 - * Liver
 - * Lymph Node, Mandibular
 - * Nerve Trigeminal
 - * Nose
 - * Pancreas
 - * Parathyroid Gland
 - * Peripheral Nerve, Sciatic
- Bile Duct
- Olfactory Epi
- Respirat Epith
- Acinus
- Artery
- Vacuolation, Cytoplasmic
- Hyperplasia
- Fibrous Osteodystrophy
- Hypocellularity
- Compression
- Exfoliated Germ Cell
- Cardiomyopathy
- Erosion
- Hemorrhage
- Hyperplasia
- Nephropathy
- Hyperplasia
- Proliferation
- Degeneration
- Accumulation, Hyaline Droplet
- Accumulation, Hyaline Droplet
- Hyperplasia
- Inflammation
- Hyperplasia
- Degeneration
- Mild
- Mild
- Minimal
- Mild
- Minimal
- Mild
- Mild
- Marked
- Mild
- Mild
- Chronicprogr, Marked
- Minimal
- Plasma Cell, Mild
- Mild
- Mild
- Minimal
- Moderate
- Chronic Active, Minimal
- Moderate
- Mild

Note: Longitudinal section available for evaluation.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1625

TRT#: 5

SEX: Male

DAY ON TEST: 652

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1625

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---------------|--------------|-------------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 1-4] | | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| | Parotid GI | Inflammation | Acute, Minimal |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Minimal |
| [Atrophy TGLs = 3-12] | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 4,5,6,7,8,11 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1628

TRT#: 5

SEX: Male

DAY ON TEST: 642

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1628

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|--------------------------------|--------------|--------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | | | |
| Note: Pars distalis available for evaluation. | | | |
| * Preputial Gland | | Inflammation | Chronic Active, Marked |
| | [Inflammation TGLs = 4,5-16] | | |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| | | Inflammation | Acute, Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Moderate |
| | | Ulcer | Moderate |
| * Testis | Germ Cell | Degeneration | Mild |
| * Thymus | | Atrophy | Moderate |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1629

TRT#: 5

SEX: Male

DAY ON TEST: 684

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1629

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- * Trachea
- * Bone Marrow
- * Eye
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Urinary Bladder
- * Brain
- * Harderian Gland
- * Preputial Gland
- * Skin
- * Testis
- * Epididymis
- * Islets, Pancreatic
- * Prostate
- * Spinal Cord, Cervical
- * Thyroid Gland

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Intestine Large, Rectum
- * Intestine Small, Duodenum

INSUFFICIENT TISSUE

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Bone
- * Heart
- * Kidney
- * Liver
- * Lung
- * Lymph Node
- * Lymph Node, Mandibular
- Hyperplasia
- Pheochromocytoma Benign
- Fibrous Osteodystrophy
- Cardiomyopathy
- Cardiomyopathy
- Dilation
- Nephropathy
- Hyperplasia
- Mixed Cell Focus
- Congestion
- Erythrophagocytosis
- Hyperplasia
- Proliferation
- Mild
- Minimal
- Moderate
- Mild
- Moderate
- Chronicprogr, Marked
- Minimal
- Mild
- Mild
- Lymphocyte, Mild
- Plasma Cell, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1629

TRT#: 5

SEX: Male

DAY ON TEST: 684

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1629

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-----------------------------|-------------------------------|----------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | Acinus | Adenoma | Multiple |
| | | Atrophy | Mild |
| | [Adenoma TGLs = 4,6-6,21] | | |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Pigment | Mild |
| * Thymus | | Atrophy | Moderate |

PRIMARY CAUSE OF DEATH - Heart Ventricle Rgt Cardiomyopathy

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1630

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1630

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Bone Marrow |
| * Esophagus | * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Lymph Node, Mesenteric | * Mammary Gland | * Parathyroid Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Trachea | Trigeminal Ganglion |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|----------------------|---|-------------------------|------------------------|
| * Adrenal Medulla | Bilateral | Pheochromocytoma Benign | |
| | [Pheochromocytoma Benign TGLs = 9-7] | | |
| * Brain | | Mineral | Minimal |
| | Note: Olfactory bulbs unavailable for evaluation. | | |
| * Epididymis | | Exfoliated Germ Cell | Mild |
| | | Hypospermia | Marked |
| | | Mesothelioma Malignant | |
| | [Mesothelioma Malignant TGLs = 3,7-16A] | | |
| * Eye | Retina | Atrophy | Minimal |
| | Cornea, Epithelium | Hyperplasia | Mild |
| | Cornea | Inflammation | Acute, Minimal |
| | Cornea | Neovascularization | Minimal |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 10-6] | | |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| Lacrimal Gland | | Metaplasia | Harderian GI, Moderate |
| | [Metaplasia TGLs = 1-21] | | |
| * Liver | | Mixed Cell Focus | |
| | [Mixed Cell Focus TGLs = 8-12] | | |
| * Lung | | Congestion | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1630

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1630

ORGAN AND ACCOUNTABLE SITE STATUS

| | | |
|---|-------------------------------|----------------------|
| Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| [Congestion TGLs = 13-10] | | |
| [Infiltration Cellular TGLs = 14-10,20] | | |
| Lymph Node | Erythrophagocytosis | Moderate |
| [Erythrophagocytosis TGLs = 11-21] | | |
| * Lymph Node, Mandibular | Ectasia | Mild |
| | Hyperplasia | Lymphocyte, Minimal |
| | Proliferation | Plasma Cell, Minimal |
| Mesentery | Mesothelioma Malignant | |
| [Mesothelioma Malignant TGLs = 10-6] | | |
| * Nerve Trigeminal | Degeneration | Mild |
| * Nose | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Adenoma | |
| | Hyperplasia | Moderate |
| Acinus | | |
| [Adenoma TGLs = 10-6] | | |
| [Hyperplasia TGLs = 10-6,14] | | |
| Penis | Concretion | Mild |
| [Concretion TGLs = 4-20] | | |
| * Peripheral Nerve, Sciatic | Degeneration | Marked |
| * Peripheral Nerve, Tibial | Degeneration | Moderate |
| * Pituitary Gland | Hyperplasia | Marked |
| * Preputial Gland | Dilation | Mild |
| | Inflammation | Chronic Active, Mild |
| [Dilation TGLs = 2-16] | | |
| * Spinal Cord, Cervical | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Degeneration | Moderate |
| | Degeneration | Mild |
| * Spinal Cord, Thoracic | Degeneration | Mild |
| * Spleen | Pigment | Mild |
| * Testis | Degeneration | Marked |
| Germ Cell | Mesothelioma Malignant | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1630

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1630

ORGAN AND ACCOUNTABLE SITE STATUS

[Mesothelioma Malignant TGLs = 5,6-16A,21]

* Thymus

Atrophy

Mild

Cyst

Ectopic Parathyroid Gland

* Thyroid Gland

C Cell

Adenoma

Animal Note: TGLs 12,15 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1631

TRT#: 5

SEX: Male

DAY ON TEST: 577

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1631

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Parathyroid Gland | * Pituitary Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular | * Testis |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- * Mammary Gland

OBSERVATIONS

- | | | | |
|------------------------------|---------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| * Brain | | Necrosis | Marked |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | Ventricle Rgt | Cardiomyopathy | Minimal |
| | | Nephropathy | Chronicprogr, Moderate |
| [Nephropathy TGLs = 2-13] | | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | | Adenoma | |
| | Acinus | Atrophy | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | Duct | Dilation | Minimal |
| Skeletal Muscle | | Degeneration | Moderate |
| [Degeneration TGLs = 3-11] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1631

TRT#: 5

SEX: Male

DAY ON TEST: 577

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1631

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

White Pulp

Atrophy

Mild

Red Pulp

Atrophy

Mild

Pigment

Minimal

[Atrophy TGLs = 1-12]

* Thymus

Atrophy

Moderate

PRIMARY CAUSE OF DEATH

- Brain Necrosis

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1633

TRT#: 5

SEX: Male

DAY ON TEST: 713

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1633

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Stomach, Glandular
- Trigeminal Ganglion
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Liver
- * Salivary Glands
- * Testis
- * Urinary Bladder
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skin
- * Thyroid Gland
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Spinal Cord, Cervical
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Pheochromocytoma Benign
- * Epididymis
 - Exfoliated Germ Cell
- * Heart
 - Cardiomyopathy
- * Islets, Pancreatic
 - Ventricl Rgt
 - Cardiomyopathy
 - Carcinoma
- * Kidney
 - [Carcinoma TGLs = 1-20]
 - Nephropathy
- * Lung
 - Alveolus
 - Infiltration Cellular TGLs = 4-10,20]
 - Erythrophagocytosis
- Lymph Node
 - Pancreatic
 - Erythrophagocytosis TGLs = 10-21,22]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Pancreas
 - Acinus
 - Hyperplasia
 - Artery
 - Inflammation
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration
- * Pituitary Gland
 - Pars Distalis
 - Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1633

TRT#: 5

SEX: Male

DAY ON TEST: 713

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1633

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLs = 7-4]

| | | | |
|-------------------|--|---------------------------|-------------------------|
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| * Prostate | | Decreased Secretory Fluid | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| Skeletal Muscle | | Degeneration | Marked |

[Degeneration TGLs = 5-11]

| | | | |
|-------------------------|------------|--------------|----------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |

[Atrophy TGLs = 6-12]

| | | | |
|------------------------|------------|--------------|-------------------------|
| * Stomach, Forestomach | | Edema | Moderate |
| | Epithelium | Hyperplasia | Marked |
| | | Inflammation | Chronic Active, Minimal |
| | | Ulcer | Mild |
| * Thymus | | Atrophy | Mild |
| | | Hemorrhage | Moderate |

PRIMARY CAUSE OF DEATH - Islets, Pancreatic Carcinoma

Animal Note: TGLs 2,3,8,9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1635

TRT#: 5

SEX: Male

DAY ON TEST: 317

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1635

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Liver
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Nerve Trigeminal
- * Pancreas
- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Spinal Cord, Lumbar
- * Spinal Cord, Thoracic
- * Spleen
- * Stomach, Forestomach
- * Testis
- * Thymus
- * Thyroid Gland
- * Trachea

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Stomach, Glandular
- * Urinary Bladder

INSUFFICIENT TISSUE

Trigeminal Ganglion

OBSERVATIONS

- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Heart

| | | | |
|--|--------------|--|----------|
| | Ventricl Rgt | Cardiomyopathy | Moderate |
| | | Cardiomyopathy | Mild |
| | | Note: Primarily affecting the right ventricular free wall. | |
- * Kidney

| | | | |
|--|--|-------------|-----------------------|
| | | Nephropathy | Chronicprogr, Minimal |
| | | Congestion | Mild |
- * Lung
 - [Congestion TGLs = 1-10]
- * Lymph Node, Mandibular

| | | | |
|--|--|------------|---------|
| | | Hemorrhage | Minimal |
| | | | |

 - [Hemorrhage TGLs = 2-9]
- * Nose

| | | | |
|--|---------------|-------------------------------|------|
| | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | Duct | Dilation | Mild |
- * Preputial Gland

PRIMARY CAUSE OF DEATH - Heart Ventricl Rgt Cardiomyopathy

CONTRIBUTORY CAUSE OF DEATH - Heart Cardiomyopathy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1636

TRT#: 5

SEX: Male

DAY ON TEST: 717

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1636

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Brain
- * Intestine Large, Colon
- * Lymph Node, Mandibular
- * Trachea
- * Esophagus
- * Intestine Small, Duodenum
- * Prostate
- * Urinary Bladder
- * Harderian Gland
- * Islets, Pancreatic
- * Stomach, Forestomach
- * Intestine Large, Cecum
- * Liver
- * Thyroid Gland

MISSING

- * Thymus

AUTO PRECLUDES DIAG.

- * Intestine Large, Rectum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric

OBSERVATIONS

- * Adrenal Cortex
 - * Adrenal Medulla
 - * Aorta
 - * Bone
 - * Bone Marrow
 - * Epididymis
 - * Eye
 - * Heart
 - * Kidney
 - * Lung
- Accessory Adrenal Cortical Nodule
Pheochromocytoma Benign
Mineral Moderate
Fibrous Osteodystrophy Moderate
Hemorrhage Mild
Hypospermia Marked
Mesothelioma Malignant
- [Mesothelioma Malignant TGLs = 5-16A]
Cornea Inflammation Acute, Moderate
Antr Chamber Inflammation Acute, Mild
- Ventricl Rgt Cardiomyopathy Moderate
Artery Cardiomyopathy Mild
Mineral Mild
- [Cardiomyopathy TGLs = 16-11,21]
Renal Tubule Cyst
Mineral Mild
Nephropathy Chronicprogr, Marked
- [Cyst TGLs = 13-13]
[Nephropathy TGLs = 6,7-13]
Interstitial Mineral Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1636

TRT#: 5

SEX: Male

DAY ON TEST: 717

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1636

ORGAN AND ACCOUNTABLE SITE STATUS

[Mineral TGLs = 17-20]

| | | | |
|--------------------|---------------|-------------------------------|----------------------|
| * Mammary Gland | | Atrophy | Mild |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| | Artery | Mineral | Moderate |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |

Note: Approximately two-thirds of Level 3 available for evaluation.

| | | | |
|---------------------|--------|--------------|----------------------|
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Marked |

[Hyperplasia TGLs = 9-8]

| | | | |
|-----------------------------|---------------|--------------|----------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Cyst | |

[Adenoma TGLs = 15-4]

| | | | |
|-------------------|-----------|---------------------------|----------|
| * Preputial Gland | Duct | Dilation | Moderate |
| * Salivary Glands | Parotid G | Atrophy | Marked |
| | Artery | Mineral | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |

[Decreased Secretory Fluid TGLs = 2-16]

| | | | |
|-----------------|--|-------------------------|------|
| Skeletal Muscle | | Degeneration | Mild |
| * Skin | | Squamous Cell Papilloma | |

[Squamous Cell Papilloma TGLs = 1-20]

| | | | |
|-------------------------|------------|--------------|----------|
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Marked |
| * Stomach, Glandular | | Mineral | Moderate |
| | Artery | Mineral | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1636

TRT#: 5

SEX: Male

DAY ON TEST: 717

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1636

ORGAN AND ACCOUNTABLE SITE STATUS

* Testis

Germ Cell

Degeneration

Marked

Mesothelioma Malignant

[Degeneration TGLs = 3-16A]

[Mesothelioma Malignant TGLs = 4-16A]

Trigeminal Ganglion

Degeneration

Minimal

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 8,11,12,14,18 = NCL (No Corresponding Lesion)

Animal Note: TGL 10 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1637

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1637

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Small, Duodenum
- * Liver
- * Nerve Trigeminal
- * Spleen
- * Trachea
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lung
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Skin
- * Stomach, Glandular
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Mammary Gland
- * Spinal Cord, Cervical
- * Thyroid Gland

MISSING

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Adrenal Medulla
 - Hyperplasia
- * Bone
 - Fibrous Osteodystrophy
- * Epididymis
 - Exfoliated Germ Cell
 - Hypospermia
- * Eye
 - [Hypospermia TGLs = 6-16A]
 - Retina
 - Atrophy
 - Cornea, Epithelium
 - Hyperplasia
 - Cornea
 - Inflammation
- * Heart
 - [Hyperplasia TGLs = 1-5]
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
- * Kidney
 - [Cardiomyopathy TGLs = 14-11]
 - Bilateral, Renal Tubule
 - Adenoma
 - Renal Tubule
 - Cyst
 - Nephropathy
- [Cyst TGLs = 9,10,11-13,20,21]
- [Nephropathy TGLs = 7,8-13]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1637

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1637

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|-------------------------------|-------------------------|
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| Mesentery | Artery | Inflammation | Chronic Active, Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | | Adenoma | |
| | Artery | Inflammation | Chronic Active, Mild |
| [Adenoma TGLs = 18-6] | | | |
| * Parathyroid Gland | | Hyperplasia | Marked |
| [Hyperplasia TGLs = 13-8] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| * Preputial Gland | Duct | Dilation | Marked |
| [Dilation TGLs = 3,4-16] | | | |
| * Prostate | | Inflammation | Chronic Active, Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| [Decreased Secretory Fluid TGLs = 19-16] | | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Testis | Germ Cell | Degeneration | Moderate |
| | Artery | Inflammation | Chronic Active, Marked |
| [Degeneration TGLs = 5-16A] | | | |
| * Thymus | | Atrophy | Moderate |

Animal Note: TGLs 12,16,17 = NCL (No Corresponding Lesion)

Animal Note: TGL 2 = NST (No Section Taken)

Animal Note: TGL 15 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1638

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1638

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|----------------------|--------------------------|-----------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Bone Marrow |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Small, Duodenum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nerve Trigeminal | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Thymus | * Thyroid Gland | * Trachea | Trigeminal Ganglion |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|---------------------------|---|---|--------------------------------------|
| * Adrenal Medulla | | Pheochromocytoma Benign Pheochromocytoma Malignant | |
| | [Pheochromocytoma Malignant TGLs = 4,5-7] | | |
| Blood Vessel | | Inflammation | Chronic Active, Mild |
| | Note: Affecting blood vessel branching off the aorta. | | |
| * Brain | | Necrosis | Minimal |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| * Heart | Ventricl Rgt | Cardiomyopathy Cardiomyopathy | Minimal Mild |
| * Intestine Large, Cecum | Artery | Inflammation | Chronic Active, Minimal |
| * Intestine Large, Colon | Artery | Inflammation | Chronic Active, Mild |
| * Intestine Large, Rectum | Artery | Inflammation | Chronic Active, Mild |
| * Intestine Small, Ileum | Artery | Inflammation | Chronic Active, Moderate |
| * Kidney | Renal Tubule | Cyst Nephropathy Thrombus | Chronicprogr, Marked Moderate |
| | [Cyst TGLs = 8-13] | | |
| | [Nephropathy TGLs = 6,7-13] | | |
| * Liver | | Clear Cell Focus | |
| * Lung | | Pheochromocytoma Malignant | Metastatic (Adrenal Medulla) |
| Lymph Node | Lumbar, Lymph Sinus Lumbar | Ectasia Erythrophagocytosis | Mild Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1638

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1638

ORGAN AND ACCOUNTABLE SITE STATUS

[Ectasia TGLs = 10-20]

[Erythrophagocytosis TGLs = 11-20]

| | | | |
|-----------------------------|------------------------|---|---|
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia Hyperplasia Proliferation | Mild Lymphocyte, Mild Plasma Cell, Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Artery | Adenoma Inflammation | Multiple Chronic Active, Moderate |
| | [Adenoma TGLs = 9-6] | | |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Hyperplasia | Marked |
| * Preputial Gland | Duct | Dilation Inflammation | Moderate Chronic Active, Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Pigment | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Marked |

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGLs 2,3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1639

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1639

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Prostate
- * Skin
- * Testis
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Liver
- * Salivary Glands
- * Spinal Cord, Cervical
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Seminal Vesicle
- * Stomach, Forestomach
- * Urinary Bladder
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration Minimal
 - Hyperplasia Mild
 - Hypertrophy Minimal
 - Vacuolation, Cytoplasmic Minimal
- * Adrenal Medulla
- Bone, Vertebra
 - Pheochromocytoma Benign
 - Developmental Malformation

Note: Deviation of the vertebral column in the dorsal ventral axis was noted at the time of necropsy.
 [Developmental Malformation TGLs = 3-21RT]
- * Brain
 - Compression Minimal

[Compression TGLs = 4-2]
- * Heart
 - Cardiomyopathy Minimal
 - Carcinoma
- * Islets, Pancreatic
 - [Carcinoma TGLs = 6-6]
- * Kidney
 - Nephropathy Chronicprogr, Marked
- * Lymph Node, Mandibular
 - Hyperplasia Lymphocyte, Minimal
 - Proliferation Plasma Cell, Mild
 - Dilation Mild
- * Mammary Gland
 - Duct
 - [Dilation TGLs = 1-20]
- * Nerve Trigeminal
 - Degeneration Moderate
- * Nose
 - Olfactory Epi Accumulation, Hyaline Droplet Mild
- * Pancreas
 - Acinus Hyperplasia Marked
 - [Hyperplasia TGLs = 6-6]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1639

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1639

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|-------------------------|
| * Parathyroid Gland | | Fibrosis | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 5-4] | | | |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1640

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1640

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Preputial Gland
- * Skeletal Muscle
- * Testis
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Lung
- * Prostate
- * Skin
- * Thyroid Gland
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- * Trachea

MISSING

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Heart
- * Islets, Pancreatic
- * Kidney
- * Liver
- * Lymph Node, Mandibular
- * Nerve Trigeminal
- * Nose
- * Pancreas
- [Adenoma TGLs = 1-6]
- [Hyperplasia TGLs = 1-6]
- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- Ventricl Rgt
- Olfactory Epi
- Acinus
- Hyperplasia
- Hypertrophy
- Hyperplasia
- Cardiomyopathy
- Cardiomyopathy
- Hyperplasia
- Nephropathy
- Mixed Cell Focus
- Hyperplasia
- Proliferation
- Degeneration
- Accumulation, Hyaline Droplet
- Adenoma
- Hyperplasia
- Hyperplasia
- Degeneration
- Degeneration
- Mild
- Minimal
- Minimal
- Minimal
- Minimal
- Minimal
- Chronicprogr, Moderate
- Lymphocyte, Mild
- Plasma Cell, Mild
- Moderate
- Minimal
- Marked
- Minimal
- Moderate
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1640

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1640

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|---------------|------------------------------|----------|
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Hyperplasia | Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Ectopic Parathyroid Gland | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1641

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1641

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung |
| * Lymph Node, Mesenteric | * Mammary Gland | * Pituitary Gland | * Salivary Glands |
| * Seminal Vesicle | Skeletal Muscle | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Thyroid Gland | * Trachea | * Urinary Bladder |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|---|----------------------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Minimal |
| * Adren Medulla | | | |
| Note: One of pair available for evaluation. | | | |
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Eye | Retina | Atrophy | Minimal |
| * Heart | Ventricle Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Liver | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | | Adenoma | |
| | Acinus | Hyperplasia | Moderate |
| | [Adenoma TGLs = 3-6] | | |
| | [Hyperplasia TGLs = 3-6] | | |
| * Parathyroid Gland | | Fibrosis | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1641

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1641

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|------------|------------------------------|----------|
| * Peripheral Nerve, Sciatic | | Hyperplasia | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Preputial Gland | Duct | Degeneration | Moderate |
| [Dilation TGLs = 2-16] | | Dilation | Marked |
| * Prostate | Epithelium | Hyperplasia | Mild |
| * Skin | | Keratoacanthoma | |
| Note: Keratoacanthoma possibly arising from inclusion cyst. | | | |
| [Keratoacanthoma TGLs = 1-20] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1642

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1642

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung |
| * Lymph Node, Mesenteric | * Mammary Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | Skeletal Muscle | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Stomach, Glandular | * Testis | * Thyroid Gland | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|--------------------------|------------------------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Minimal |
| | | Vacuolation, Cytoplasmic | Mild |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 5-13] | | |
| * Liver | | Eosinophilic Focus | |
| | Bile Duct | Hyperplasia | Minimal |
| | Hepatocyte | Necrosis | Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| | [Hyperplasia TGLs = 1-9] | | |
| | [Proliferation TGLs = 1-9] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 11-6] | | |
| * Parathyroid Gland | | Hyperplasia | Minimal |
| | [Hyperplasia TGLs = 7-8] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1642

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1642

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|----------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 12-4] | | | |
| * Preputial Gland | Duct | Dilation | Marked |
| [Dilation TGLs = 2,3-16] | | | |
| * Skin | Subcut Tiss | Fibroma | |
| [Fibroma TGLs = 10-21] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Moderate |

Animal Note: TGLs 4,6,8,9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1643

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1643

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Glandular
- Trigeminal Ganglion
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- Skeletal Muscle
- * Testis
- * Urinary Bladder
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Prostate
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adren Medulla
 - Note: One of pair available for evaluation.
- * Bone Marrow
 - Hypercellularity
- * Heart
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- * Liver
 - Extramedullary Hematopoiesis
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 8-10]
 - Infiltration Cellular
 - Hyperplasia TGLs = 5-20]
 - [Proliferation TGLs = 6-6]
- * Lymph Node
 - Inguinal
 - Hyperplasia
 - Mediastinal
 - Proliferation
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Hyperplasia
 - Proliferation
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Pancreas
 - Acinus
 - Hyperplasia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1643

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1643

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------------|---------------|------------------------------|-------------------------|
| * Peripheral Nerve, Sciatic | Artery | Inflammation | Chronic Active, Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Degeneration | Marked |
| [Adenoma TGLs = 10-4] | | Adenoma | |
| * Preputial Gland | Duct | Dilation | Mild |
| [Dilation TGLs = 2,3-16] | | Inflammation | Chronic Active, Minimal |
| * Skin | Subcut Tiss | Inflammation | Suppurative, Marked |
| [Inflammation TGLs = 1-20] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Ectopic Parathyroid Gland | |

Animal Note: TGLs 4,9,11 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1644

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1644

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Mammary Gland | * Salivary Glands | * Seminal Vesicle | Skeletal Muscle |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Testis |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|-------------------------------|----------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Bone Marrow | | Hypercellularity | Minimal |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | Ventricle Rgt | Cardiomyopathy | Minimal |
| | | Nephropathy | Chronicprogr, Mild |
| | [Nephropathy TGLs = 3-13] | | |
| * Liver | Bile Duct | Hyperplasia | Mild |
| | | Mixed Cell Focus | |
| * Lung | | Carcinoma | Metastatic (Thyroid Gland) |
| | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 8-10] | | |
| Lymph Node | Lymph Sinus, Mediastinal | Ectasia | Mild |
| | Mediastinal | Erythrophagocytosis | Mild |
| | [Ectasia TGLs = 5-20] | | |
| | [Erythrophagocytosis TGLs = 6-20] | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Moderate |
| | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| | [Ectasia TGLs = 1-9] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | | Adenoma | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1644

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1644

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|------------------------------|--------------------------|
| | Acinus | Hyperplasia | Mild |
| | [Adenoma TGLs = 4-6.1] | | |
| | [Hyperplasia TGLs = 4-6.1] | | |
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Marked |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Moderate |
| * Prostate | | Adenoma | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Marked |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| | [Extramedullary Hematopoiesis TGLs = 2-12] | | |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| * Thyroid Gland | C Cell | Carcinoma | |
| | [Carcinoma TGLs = 7-8] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1645

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1645

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Mammary Gland
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Seminal Vesicle
- * Testis

MISSING

- * Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hypertrophy
- * Adrenal Medulla
 - Pheochromocytoma Benign
- [Pheochromocytoma Benign TGLs = 5,6-7]
- * Bone Marrow
 - Hypercellularity
- * Eye
 - Retina
 - Atrophy
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
- * Islets, Pancreatic
 - Adenoma
 - Hyperplasia
- [Adenoma TGLs = 8-6]
- * Kidney
 - Nephropathy
- * Liver
 - Bile Duct
 - Hyperplasia
 - Mixed Cell Focus
- [Mixed Cell Focus TGLs = 7-20]
- * Lung
 - Alveolus
 - Infiltration Cellular
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Hyperplasia
 - Proliferation
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1645

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1645

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|------------------------------|------------------------|
| * Pancreas | | Adenoma | Multiple |
| | Acinus | Hyperplasia | Mild |
| | [Adenoma TGLs = 8-6] | | |
| | [Hyperplasia TGLs = 8-6,14] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Minimal |
| * Preputial Gland | | Inflammation | Chronic Active, Marked |
| | [Inflammation TGLs = 3-16.1] | | |
| * Prostate | Epithelium | Hyperplasia | Mild |
| * Skin | | Keratoacanthoma | |
| | | Squamous Cell Carcinoma | |
| | [Keratoacanthoma TGLs = 2-21] | | |
| | [Squamous Cell Carcinoma TGLs = 1-20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | [Extramedullary Hematopoiesis TGLs = 4-12] | | |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | Bilateral, C Cell | Carcinoma | |
| | [Carcinoma TGLs = 9,10-8] | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1646

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1646

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lung | * Mammary Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Testis | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

MISSING

- * Parathyroid Gland

OBSERVATIONS

- | | | | |
|-----------------------------|---------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Marked |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricle Rgt | Cardiomyopathy | Minimal |
| | | Adenoma | |
| * Islets, Pancreatic | | | |
| [Adenoma TGLs = 1-6] | | | |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Moderate |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Minimal |
| Mesentery | | Neovascularization | Mild |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Acinus | Hyperplasia | Mild |
| [Hyperplasia TGLs = 1-6] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1646

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1646

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|----------------------|
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Adenoma | |
| [Adenoma TGLs = 3-8] | | | |

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1648

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1648

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Prostate
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Aorta
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Seminal Vesicle
- * Testis
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Preputial Gland
- Skeletal Muscle
- * Trachea

MISSING

- * Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 Marked
Minimal
 [Hyperplasia TGLs = 5-7]
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Heart
 - Cardiomyopathy
 Mild
- * Kidney
 - Nephropathy
 Chronicprogr, Moderate
- * Liver
 - Bile Duct
 - Clear Cell Focus
 - Cyst
 - Mixed Cell Focus
 [Clear Cell Focus TGLs = 2-20.1]
 [Cyst TGLs = 1-20.1]
- * Lung
 - Alveolus
 - Infiltration Cellular
 Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Hyperplasia
 - Proliferation
 Minimal
Lymphocyte, Minimal
Plasma Cell, Minimal
- * Nerve Trigeminal
 - Degeneration
 Mild
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 Mild
- * Pancreas
 - Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1648

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1648

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLs = 4-6]

* Peripheral Nerve, Sciatic

Degeneration

Moderate

* Peripheral Nerve, Tibial

Degeneration

Mild

* Skin

Subcut Tiss

Lipoma

[Lipoma TGLs = 3-20.1]

* Spinal Cord, Cervical

Degeneration

Minimal

* Spinal Cord, Lumbar

Nerve

Degeneration

Mild

Degeneration

Minimal

* Spinal Cord, Thoracic

Degeneration

Mild

* Spleen

Extramedullary Hematopoiesis

Mild

Pigment

Minimal

* Thymus

Atrophy

Minimal

* Thyroid Gland

C Cell

Hyperplasia

Mild

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1649

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1649

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Aorta | * Bone Marrow | * Brain | * Esophagus |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lung | * Lymph Node, Mesenteric | * Mammary Gland | * Salivary Glands |
| Skeletal Muscle | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|---|-------------------------------|--------------------------|----------------------|
| * Adrenal Cortex | | Vacuolation, Cytoplasmic | Mild |
| * Adrenal Medulla | | Hyperplasia | Moderate |
| * Bone | | Fibrous Osteodystrophy | Minimal |
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Epididymis | | Exfoliated Germ Cell | Mild |
| * Eye | Cornea, Epithelium | Hyperplasia | Minimal |
| | Antr Chamber | Inflammation | Acute, Minimal |
| | Cornea | Inflammation | Acute, Minimal |
| * Heart | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Moderate |
| * Kidney | Renal Tubule | Cyst | |
| | Renal Tubule | Hyperplasia | Atypical, Moderate |
| | | Nephropathy | Chronicprogr, Marked |
| | [Cyst TGLs = 8-13] | | |
| | [Nephropathy TGLs = 7,9-13] | | |
| * Liver | Bile Duct | Cyst | |
| | [Cyst TGLs = 14-20] | | |
| Lymph Node | Lymph Sinus, Renal | Ectasia | Minimal |
| | Renal | Erythrophagocytosis | Mild |
| | Iliac | Hyperplasia | Lymphocyte, Minimal |
| | Iliac | Proliferation | Plasma Cell, Minimal |
| | [Ectasia TGLs = 10-20] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1649

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1649

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | | |
|-----------------------------|---|-------------------------------|-------------------------|--|
| | [Erythrophagocytosis TGLs = 11-20] | | | |
| | [Hyperplasia TGLs = 13-21] | | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Moderate | |
| | | Hyperplasia | Lymphocyte, Mild | |
| | | Proliferation | Plasma Cell, Mild | |
| | [Ectasia TGLs = 3-9] | | | |
| Mesentery | Artery | Inflammation | Chronic Active, Minimal | |
| * Nerve Trigeminal | | Degeneration | Moderate | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate | |
| * Pancreas | Acinus | Hyperplasia | Marked | |
| | Artery | Inflammation | Chronic Active, Minimal | |
| | [Hyperplasia TGLs = 12-6] | | | |
| * Parathyroid Gland | | Hyperplasia | Moderate | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild | |
| * Peripheral Nerve, Tibial | | Degeneration | Mild | |
| * Pituitary Gland | Pars Distalis | Adenoma | | |
| * Preputial Gland | Duct | Dilation | Mild | |
| | | Inflammation | Chronic Active, Mild | |
| | [Dilation TGLs = 4-16] | | | |
| * Prostate | Artery | Inflammation | Chronic Active, Mild | |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild | |
| * Skin | | Squamous Cell Papilloma | | |
| | [Squamous Cell Papilloma TGLs = 2-20] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate | |
| * Spinal Cord, Thoracic | | Degeneration | Minimal | |
| * Spleen | | Pigment | Minimal | |
| * Testis | Germ Cell | Degeneration | Mild | |
| | Artery | Inflammation | Chronic Active, Marked | |
| | [Degeneration TGLs = 5-16A] | | | |
| * Thymus | | Atrophy | Moderate | |
| | Artery | Inflammation | Chronic Active, Mild | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1649

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1649

ORGAN AND ACCOUNTABLE SITE STATUS

[Atrophy TGLs = 15-6]

* Thyroid Gland

C Cell

Hyperplasia

Minimal

Tissue NOS

Mediastinum

Chemodectoma Benign

Trigeminal Ganglion

Degeneration

Minimal

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1650

TRT#: 5

SEX: Male

DAY ON TEST: 726

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1650

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|-------------------------------|--------------------------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| | [Hyperplasia TGLs = 9-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Intermed | Cyst | |
| * Preputial Gland | | Inflammation | Chronic Active, Marked |
| | [Inflammation TGLs = 14-16] | | |
| * Salivary Glands | Parotid GI | Adenoma | |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| | [Decreased Secretory Fluid TGLs = 4-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | Subcut Tiss | Lipoma | |
| | | Squamous Cell Carcinoma | |
| | [Lipoma TGLs = 5-20] | | |
| | [Squamous Cell Carcinoma TGLs = 8-19,21] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Pigment | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Skin Squamous Cell Carcinoma

Animal Note: TGLs 2,3 = NCL (No Corresponding Lesion)

Animal Note: TGL 10 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1651

TRT#: 5

SEX: Male

DAY ON TEST: 353

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1651

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Thymus
- * Urinary Bladder
- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Seminal Vesicle
- * Stomach, Forestomach
- * Thyroid Gland
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Preputial Gland
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Trachea
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Prostate
- * Spinal Cord, Lumbar
- * Testis
- Trigeminal Ganglion

INSUFFICIENT TISSUE

- * Mammary Gland

OBSERVATIONS

- * Bone Marrow
 - * Heart
 - * Kidney
 - * Liver
 - * Lung
 - * Nose
 - * Peripheral Nerve, Sciatic
 - * Peripheral Nerve, Tibial
 - Skeletal Muscle
 - [Degeneration TGLs = 2-20]
 - * Skin
 - [Ulcer TGLs = 1 - 21]
 - * Spleen
- | | | | |
|--|---------------|-------------------------------|------------------------|
| | Ventricle Rgt | Hypercellularity | Mild |
| | | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| | | Nephropathy | Chronicprogr, Mild |
| | | Extramedullary Hematopoiesis | Minimal |
| | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | | Degeneration | Minimal |
| | | Degeneration | Minimal |
| | | Degeneration | Moderate |
| | Subcut Tiss | Inflammation | Chronic Active, Marked |
| | | Ulcer | Marked |
| | | Extramedullary Hematopoiesis | Minimal |

PRIMARY CAUSE OF DEATH - Skin Ulcer

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1652

TRT#: 5

SEX: Male

DAY ON TEST: 632

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1652

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Prostate
- * Thyroid Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Trachea
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Skin
- Trigeminal Ganglion

MISSING

- * Nerve Trigeminal

OBSERVATIONS

- * Adrenal Cortex
 - Leukemia Mononuclear
 - Vacuolation, Cytoplasmic
 - Minimal
- * Adrenal Medulla
 - Hyperplasia
 - Mild
- * Aorta
 - Mineral
 - Minimal
- * Bone
 - Fibrous Osteodystrophy
 - Minimal
- * Bone Marrow
 - Leukemia Mononuclear
- * Brain
 - Leukemia Mononuclear
- Note: Olfactory bulbs unavailable for evaluation.
 - [Leukemia Mononuclear TGLs = 13,14,15,16-2,20]
- * Epididymis
 - Exfoliated Germ Cell
 - Mild
- * Eye
 - Cornea, Epithelium
 - Hyperplasia
 - Marked
 - Cornea
 - Inflammation
 - Acute, Marked
- * Heart
 - Cardiomyopathy
 - Moderate
- * Kidney
 - Nephropathy
 - Chronicprogr, Marked
- [Nephropathy TGLs = 7,8,11-13,20,18-13]
- * Liver
 - Leukemia Mononuclear
- * Lymph Node, Mandibular
 - Proliferation
 - Plasma Cell, Moderate
- [Proliferation TGLs = 2-9]
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Mild
- * Pancreas
 - Adenoma
- [Adenoma TGLs = 19-6]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1652

TRT#: 5

SEX: Male

DAY ON TEST: 632

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1652

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|---------------------------|----------------------|
| * Parathyroid Gland | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 1-16] | | |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| | [Decreased Secretory Fluid TGLs = 17-16] | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| | [Leukemia Mononuclear TGLs = 12-3] | Leukemia Mononuclear | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| | | Leukemia Mononuclear | |
| * Spleen | | Leukemia Mononuclear | |
| | | Necrosis | Moderate |
| | [Leukemia Mononuclear TGLs = 4-12] | | |
| | [Necrosis TGLs = 5-12] | | |
| * Stomach, Glandular | | Mineral | Moderate |
| * Testis | Germ Cell | Degeneration | Mild |
| | [Degeneration TGLs = 3-16A] | | |
| * Thymus | | Atrophy | Marked |
| | [Atrophy TGLs = 10-6] | | |

PRIMARY CAUSE OF DEATH - Brain Leukemia Mononuclear

Animal Note: TGLs 6,9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1653

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1653

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Mammary Gland | * Parathyroid Gland | * Salivary Glands |
| * Seminal Vesicle | Skeletal Muscle | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Stomach, Glandular | * Testis | * Trachea | * Urinary Bladder |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|-----------------------------|---------------|-------------------------------|--------------------------|
| * Adrenal Cortex | | Hyperplasia Hypertrophy | Moderate Mild |
| [Hyperplasia TGLs = 4-7] | | | |
| * Epididymis | Artery | Inflammation | Chronic Active, Moderate |
| * Eye | Retina | Atrophy | Minimal |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricle Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| [Nephropathy TGLs = 3-13] | | | |
| * Liver | | Mixed Cell Focus | |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | | Inflammation | Suppurative, Minimal |
| * Pancreas | Acinus | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Minimal |
| * Preputial Gland | Duct | Dilation | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1653

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1653

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------------|-------------|------------------------------|-------------------------|
| * Prostate | Epithelium | Inflammation | Chronic Active, Minimal |
| * Skin | Subcut Tiss | Hyperplasia | Mild |
| [Myxosarcoma TGLs = 1,2-20,21] | | Myxosarcoma | Multiple |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | Artery | Inflammation | Chronic Active, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |
| [Hyperplasia TGLs = 5-8] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1654

TRT#: 5

SEX: Male

DAY ON TEST: 684

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1654

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Mammary Gland
- * Prostate
- * Skin
- * Thyroid Gland
- * Aorta
- * Harderian Gland
- * Nerve Trigeminal
- * Salivary Glands
- * Spinal Cord, Cervical
- * Trachea
- * Bone Marrow
- * Intestine Large, Rectum
- * Pituitary Gland
- * Seminal Vesicle
- * Spinal Cord, Thoracic
- * Brain
- * Lymph Node, Mesenteric
- * Preputial Gland
- Skeletal Muscle
- * Stomach, Forestomach

MISSING

Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Ileum
- * Stomach, Glandular
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Urinary Bladder
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Intestine Small, Duodenum
- * Pancreas

INSUFFICIENT TISSUE

* Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - * Bone
 - * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
 - * Epididymis
 - * Heart
 - Ventricl Rgt
 - * Kidney
 - * Liver
 - * Lung
 - * Lymph Node, Mandibular
 - * Nose
 - Olfactory Epi
 - * Peripheral Nerve, Sciatic
 - * Peripheral Nerve, Tibial
- | | | |
|--|-------------------------------|----------------------|
| | Vacuolation, Cytoplasmic | Mild |
| | Fibrous Osteodystrophy | Mild |
| | Exfoliated Germ Cell | Moderate |
| | Cardiomyopathy | Moderate |
| | Cardiomyopathy | Mild |
| | Nephropathy | Chronicprogr, Marked |
| | Hyperplasia | Minimal |
| | Infiltration Cellular | Histiocyte, Minimal |
| | Proliferation | Plasma Cell, Minimal |
| | Accumulation, Hyaline Droplet | Marked |
| | Degeneration | Mild |
| | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1654

TRT#: 5

SEX: Male

DAY ON TEST: 684

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1654

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------|------------|--------------|----------------------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Moderate |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1655

TRT#: 5

SEX: Male

DAY ON TEST: 697

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1655

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Trachea
- * Aorta
- * Epididymis
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone
- * Esophagus
- * Intestine Small, Jejunum
- * Mammary Gland
- Skeletal Muscle
- * Testis
- * Bone Marrow
- * Harderian Gland
- * Liver
- * Prostate
- * Skin
- * Thyroid Gland

AUTO PRECLUDES DIAG.

- * Eye
- * Islets, Pancreatic
- * Intestine Large, Cecum
- * Pancreas
- * Intestine Large, Colon
- * Stomach, Glandular
- * Intestine Small, Ileum
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
- * Heart
- * Kidney
- [Nephropathy TGLs = 3-13]
- * Lung
- [Infiltration Cellular TGLs = 2-10]
- * Nerve Trigeminal
- * Nose
- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Preputial Gland
- * Spinal Cord, Cervical
- * Spinal Cord, Lumbar
- * Spleen
- Ventricle Rgt
- Alveolus
- Olfactory Epi
- Pars Distalis
- Nerve
- Hyperplasia
- Cardiomyopathy
- Cardiomyopathy
- Nephropathy
- Infiltration Cellular
- Degeneration
- Accumulation, Hyaline Droplet
- Hyperplasia
- Degeneration
- Degeneration
- Adenoma
- Inflammation
- Degeneration
- Degeneration
- Degeneration
- Extramedullary Hematopoiesis
- Pigment
- Minimal
- Mild
- Minimal
- Minimal
- Chronicprogr, Marked
- Histiocyte, Minimal
- Mild
- Mild
- Mild
- Moderate
- Mild
- Chronic Active, Mild
- Minimal
- Moderate
- Minimal
- Mild
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1655

TRT#: 5

SEX: Male

DAY ON TEST: 697

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1655

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Moderate

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGL 1 = NCL (No Corresponding Lesion) tissue too autolyzed for evaluation

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1761

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1761

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Pancreas
- * Seminal Vesicle
- * Testis
- * Urinary Bladder
- * Aorta
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- Skeletal Muscle
- * Thyroid Gland
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Prostate
- * Skin
- * Trachea
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Mammary Gland
- * Salivary Glands
- * Stomach, Glandular
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Heart
- * Kidney
- * Liver
- * Nerve Trigeminal
- * Nose
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Preputial Gland
- [Dilation TGLs = 1-16]
- * Spinal Cord, Cervical
- * Spinal Cord, Lumbar
- * Spinal Cord, Thoracic
- * Spleen
- [Atrophy TGLs = 2-12]
- Ventricle Rgt
- Olfactory Epi
- Pars Intermed
- Craniophar Dct
- Duct
- Nerve
- Red Pulp
- Hypertrophy
- Cardiomyopathy
- Cardiomyopathy
- Nephropathy
- Clear Cell Focus
- Degeneration
- Accumulation, Hyaline Droplet
- Degeneration
- Degeneration
- Cyst
- Cyst
- Dilation
- Inflammation
- Degeneration
- Degeneration
- Degeneration
- Atrophy
- Pigment
- Minimal
- Minimal
- Minimal
- Chronicprogr, Minimal
- Mild
- Minimal
- Moderate
- Moderate
- Moderate
- Moderate
- Chronic Active, Minimal
- Minimal
- Moderate
- Mild
- Minimal
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1761

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1761

ORGAN AND ACCOUNTABLE SITE STATUS

* Stomach, Forestomach

Epithelium

Hyperplasia

Minimal

Inflammation

Chronic, Mild

* Thymus

Atrophy

Mild

Ectopic Parathyroid Gland

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1762

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1762

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Stomach, Glandular
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- Skeletal Muscle
- * Testis
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Skin
- * Trachea
- * Epididymis
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Degeneration
- * Adrenal Medulla
 - Hyperplasia
 - Pheochromocytoma Benign
- * Bone Marrow
 - Hypercellularity
- * Eye
 - Cornea, Epithelium
 - Hyperplasia
 - Cornea
 - Inflammation
 - Cornea
 - Neovascularization
- * Harderian Gland
 - Infiltration Cellular
- * Heart
 - Cardiomyopathy
 - Ventricl Rgt
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- * Liver
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - Infiltration Cellular
- * Lymph Node, Mandibular
 - Proliferation
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Pancreas
 - Acinus
 - Hyperplasia
- [Hyperplasia TGLs = 2-6]
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration
- * Pituitary Gland
 - Pars Intermed
 - Hyperplasia
 - Pars Distalis
 - Hyperplasia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1762

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1762

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|------------|------------------------------|----------|
| [Hyperplasia TGLs = 3-4] | | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| [Dilation TGLs = 1-16] | | | |
| * Prostate | Epithelium | Hyperplasia | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | Follicle | Cyst | |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1763

TRT#: 7

SEX: Male

DAY ON TEST: 528

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1763

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Epididymis
- * Esophagus
- * Harderian Gland
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Nerve Trigeminal
- * Parathyroid Gland
- * Pituitary Gland
- * Preputial Gland
- * Salivary Glands
- * Seminal Vesicle
- * Skin
- * Spinal Cord, Cervical
- * Spinal Cord, Thoracic
- * Stomach, Forestomach
- * Testis
- * Thyroid Gland
- * Trachea
- Trigeminal Ganglion
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Pancreas
- * Prostate
- * Spleen
- * Stomach, Glandular

OBSERVATIONS

- * Heart
 - Ventricl Rgt
 - Endocardium
 - Cardiomyopathy
 - Cardiomyopathy
 - Hyperplasia
 - Minimal
 - Mild
 - Schwann Cell, Mild
- Note: Schwann cell
- * Kidney
 - Hepatocyte
 - Nephropathy
 - Chronicprogr, Mild
- * Liver
 - Hepatocyte
 - Vacuolation, Cytoplasmic
 - Minimal
- * Lung
 - Alveolus
 - Congestion
 - Marked
 - Infiltration Cellular
 - Histiocyte, Moderate
- [Congestion TGLs = 1-10]
- [Infiltration Cellular TGLs = 2-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Lymphocyte, Minimal
 - Plasma Cell, Mild
- * Nose
 - Olfactory Epi
 - Respirat Epith
 - Accumulation, Hyaline Droplet
 - Accumulation, Hyaline Droplet
 - Mild
 - Minimal
- Note: Level 3 largely absent.
- * Peripheral Nerve, Sciatic
 - Degeneration
 - Minimal
- * Peripheral Nerve, Tibial
 - Degeneration
 - Mild
- Skeletal Muscle
 - Degeneration
 - Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1763

TRT#: 7

SEX: Male

DAY ON TEST: 528

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1763

ORGAN AND ACCOUNTABLE SITE STATUS

* Spinal Cord, Lumbar

Nerve

Degeneration

Minimal

* Thymus

Atrophy

Mild

PRIMARY CAUSE OF DEATH

- Heart Cardiomyopathy

CONTRIBUTORY CAUSE OF DEATH

- Heart Ventricl Rgt Cardiomyopathy

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1764

TRT#: 7

SEX: Male

DAY ON TEST: 580

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1764

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|------------|--|--------------------------------------|
| * Preputial Gland | Duct | Dilation Inflammation | Moderate Chronic Active, Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | White Pulp | Atrophy Pigment | Mild Mild |
| * Testis | Germ Cell | Degeneration Mesothelioma Malignant | Mild |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1765

TRT#: 7

SEX: Male

DAY ON TEST: 581

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1765

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Lymph Node, Mandibular
- * Nose
- * Seminal Vesicle
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Bone
- * Esophagus
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- Skeletal Muscle
- * Stomach, Forestomach
- * Bone Marrow
- * Harderian Gland
- * Mammary Gland
- * Pituitary Gland
- * Skin
- * Testis
- * Brain
- * Intestine Large, Rectum
- * Nerve Trigeminal
- * Salivary Glands
- * Spinal Cord, Cervical
- * Thyroid Gland

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Ileum
- * Pancreas
- * Trachea
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Prostate
- * Urinary Bladder
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Spleen
- * Intestine Small, Duodenum
- * Liver
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
 - [Pheochromocytoma Benign TGLs = 1-7]
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Heart
 - Ventricl Rgt
- * Kidney
- * Lung
 - Alveolus
 - [Congestion TGLs = 9-10]
- * Nose
 - Note: Level 3 largely absent.
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Preputial Gland
- * Spinal Cord, Lumbar
- Hypertrophy
- Pheochromocytoma Benign
- Cardiomyopathy
- Cardiomyopathy
- Nephropathy
- Congestion
- Infiltration Cellular
- Degeneration
- Degeneration
- Dilation
- Degeneration

Minimal

Minimal

Mild

Chronicprogr, Minimal

Moderate

Histiocyte, Minimal

Minimal

Minimal

Moderate

Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1765

TRT#: 7

SEX: Male

DAY ON TEST: 581

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1765

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Moderate

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Animal Note: TGLs 2,3,4,5,6,7,8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1766

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1766

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nerve Trigeminal | * Parathyroid Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|-------------------------------|---------------|-------------------------------|--------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Eye | Retina | Atrophy | Minimal |
| * Heart | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| [Nephropathy TGLs = 1-13] | | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| | Hepatocyte | Necrosis | Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | | Adenoma | Multiple |
| | Acinus | Hyperplasia | Mild |
| [Adenoma TGLs = 2-6] | | | |
| [Hyperplasia TGLs = 2-6,14] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Intermed | Hyperplasia | Minimal |
| | Pars Distalis | Hyperplasia | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1766

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1766

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------|-----------|---|-----------------------------------|
| * Preputial Gland | Duct | Dilation Inflammation | Marked Chronic Active, Minimal |
| [Dilation TGLs = 3-16] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration Degeneration | Mild Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Marked |
| * Spleen | | Extramedullary Hematopoiesis Pigment | Minimal Minimal |
| * Testis | Germ Cell | Degeneration | Minimal |
| * Thymus | | Atrophy Cyst | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1767

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1767

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Pituitary Gland
- * Stomach, Forestomach
- * Trachea
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Prostate
- * Stomach, Glandular
- * Urinary Bladder
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Seminal Vesicle
- * Testis
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Skin
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 Mild
Minimal
Minimal
- * Adrenal Medulla
 - Hyperplasia
 Marked
- * Heart
 - Cardiomyopathy
 - Ventricl Rgt
Cardiomyopathy
 Mild
Moderate
- [Cardiomyopathy TGLs = 4-11]
- * Kidney
 - Nephropathy
 Chronicprogr, Moderate
- * Liver
 - Mixed Cell Focus
- * Lung
 - Epithlm Alvlus
 - Lumbar, Lymph Sinus
 - Lumbar
 Hyperplasia
Ectasia
Erythrophagocytosis
Minimal
Mild
Minimal
- [Ectasia TGLs = 2-20]
 [Erythrophagocytosis TGLs = 3-20]
- * Lymph Node, Mandibular
 - Lymph Sinus
 Ectasia
Hyperplasia
Proliferation
Moderate
Lymphocyte, Minimal
Plasma Cell, Minimal
- [Ectasia TGLs = 1-9]
- * Nose
 - Olfactory Epi
 - Respirat Epith
 Accumulation, Hyaline Droplet
Hyperplasia
Mild
Minimal
- * Peripheral Nerve, Sciatic
 - Degeneration
 Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1767

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1767

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|------------|------------------------------|----------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1768

TRT#: 7

SEX: Male

DAY ON TEST: 665

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1768

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Bone Marrow
- * Intestine Large, Colon
- * Mammary Gland
- * Trachea
- * Brain
- * Islets, Pancreatic
- * Pituitary Gland
- * Esophagus
- * Lymph Node, Mandibular
- * Stomach, Forestomach
- * Harderian Gland
- * Lymph Node, Mesenteric
- * Thyroid Gland

MISSING

Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Ileum
- * Urinary Bladder
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Intestine Large, Rectum
- * Nose
- * Intestine Small, Duodenum
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Necrosis
 - Vacuolation, Cytoplasmic
- * Adrenal Medulla
 - Hyperplasia
- * Aorta
 - Mineral
- * Bone
 - Fibrous Osteodystrophy
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Epididymis
 - Exfoliated Germ Cell
 - Hypospermia
- * Heart
 - Artery
 - Thrombus
 - Cardiomyopathy
- * Kidney
 - Ventricl Rgt
 - Cardiomyopathy
 - Renal Tubule
 - Cyst
 - Nephropathy
- * Liver
 - [Nephropathy TGLs = 4-13]
 - Chronicprogr, Marked
 - Hepatocyte
 - Necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1768

TRT#: 7

SEX: Male

DAY ON TEST: 665

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1768

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|---------------------------|--------------------------|
| * Lung | | Hemorrhage | Moderate |
| | Alveolus | Infiltration Cellular | Histiocyte, Moderate |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Pancreas | Acinus | Hyperplasia | Moderate |
| | [Hyperplasia TGLs = 6-22RT] | | |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| | [Hyperplasia TGLs = 7-8] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | Duct | Dilation | Mild |
| * Prostate | | Decreased Secretory Fluid | Minimal |
| * Salivary Glands | Sublingual GI | Atrophy | Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| Skeletal Muscle | | Degeneration | Mild |
| * Skin | Subcut Tiss | Fibroma | |
| | | Keratoacanthoma | |
| | [Fibroma TGLs = 8-21] | | |
| | [Keratoacanthoma TGLs = 1-20] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| | Note: Acicular cleft formation within the spinal nerves. | | |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| | [Degeneration TGLs = 5-16A] | | |
| * Thymus | | Atrophy | Marked |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1768

TRT#: 7

SEX: Male

DAY ON TEST: 665

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1768

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Animal Note: TGL 2 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1769

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1769

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Skin
- * Thymus
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Salivary Glands
- * Stomach, Forestomach
- * Thyroid Gland
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Seminal Vesicle
- * Stomach, Glandular
- * Trachea
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Pancreas
- Skeletal Muscle
- * Testis
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 Mild
Minimal
Minimal
- * Adrenal Medulla
 - Hyperplasia
 Marked
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Heart
 - Cardiomyopathy
 Mild
- * Kidney
 - Ventricle Rgt
 - Renal Tubule
 - Cardiomyopathy
 - Carcinoma
 - Nephropathy
 Moderate
Chronicprogr, Mild
- * Liver
 - [Carcinoma TGLs = 1-13]
 - Bile Duct
 Hyperplasia
Mixed Cell Focus
Minimal
- * Lymph Node
 - Renal
 - [Infiltration Cellular TGLs = 3-20]
 Infiltration Cellular
Mixed Cell, Mild
- * Lymph Node, Mesenteric
 - Hyperplasia
 Lymphocyte, Minimal
- * Nose
 - Olfactory Epi
 Accumulation, Hyaline Droplet
Moderate
- * Peripheral Nerve, Sciatic
 - Degeneration
 Moderate
- * Peripheral Nerve, Tibial
 - Degeneration
 Moderate
- * Pituitary Gland
 - Pars Distalis
 Hyperplasia
Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1769

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1769

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|------------|------------------------------|----------|
| * Preputial Gland | Duct | Dilation | Mild |
| * Prostate | Epithelium | Hyperplasia | Marked |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1770

TRT#: 7

SEX: Male

DAY ON TEST: 552

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1770

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Liver
- * Pancreas
- Skeletal Muscle
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Lymph Node, Mandibular
- * Pituitary Gland
- * Skin
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Preputial Gland
- * Spinal Cord, Cervical
- * Testis
- * Bone Marrow
- * Harderian Gland
- * Islets, Pancreatic
- * Mammary Gland
- * Seminal Vesicle
- * Spinal Cord, Thoracic
- * Thyroid Gland

AUTO PRECLUDES DIAG.

- * Eye
- * Trachea
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
 - * Heart
 - * Kidney
 - * Lung
 - [Congestion TGLs = 1-10]
 - * Nerve Trigeminal
 - * Nose
 - Olfactory Epi
 - * Parathyroid Gland
 - * Peripheral Nerve, Sciatic
 - * Peripheral Nerve, Tibial
 - * Prostate
 - * Salivary Glands
 - * Spinal Cord, Lumbar
 - * Spleen
 - Sublingul GI
 - Nerve
 - White Pulp
 - Red Pulp
 - [Atrophy TGLs = 2-12]
 - * Thymus
- Hyperplasia
 - Cardiomyopathy
 - Nephropathy
 - Congestion
 - Degeneration
 - Accumulation, Hyaline Droplet
 - Hyperplasia
 - Degeneration
 - Degeneration
 - Adenoma
 - Mineral
 - Degeneration
 - Atrophy
 - Atrophy
 - Pigment
 - Hemorrhage
- Mild
 - Minimal
 - Chronicprogr, Minimal
 - Marked
 - Mild
 - Mild
 - Minimal
 - Minimal
 - Minimal
 - Minimal
 - Minimal
 - Moderate
 - Mild
 - Mild
 - Mild
 - Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1770

TRT#: 7

SEX: Male

DAY ON TEST: 552

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1770

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1771

TRT#: 7

SEX: Male

DAY ON TEST: 469

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1771

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Harderian Gland
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Islets, Pancreatic
- * Lymph Node, Mandibular
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Nerve Trigeminal
- * Pancreas
- * Parathyroid Gland
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- * Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Stomach, Forestomach
- * Stomach, Glandular
- * Testis
- * Thymus
- * Thyroid Gland
- * Trachea
- Trigeminal Ganglion
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- * Heart
 - Ventricl Rgt
 - Cardiomyopathy Minimal
 - Cardiomyopathy Minimal
 - Nephropathy Chronicprogr, Mild
 - Mixed Cell Focus
 - Hepatocyte
 - Vacuolation, Cytoplasmic Minimal
 - [Mixed Cell Focus TGLs = 2-20]
 - * Lung
 - Alveolus
 - Congestion Moderate
 - Infiltration Cellular Histiocyte, Minimal
 - [Congestion TGLs = 1-10]
 - * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet Mild
 - * Peripheral Nerve, Sciatic
 - Degeneration Minimal
 - * Preputial Gland
 - Inflammation Chronic Active, Mild
 - * Spinal Cord, Lumbar
 - Nerve
 - Degeneration Minimal
 - * Spinal Cord, Thoracic
 - Degeneration Minimal
 - * Spleen
 - White Pulp
 - Atrophy Minimal

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1772

TRT#: 7

SEX: Male

DAY ON TEST: 545

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1772

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|--------------------------|--------------------------|
| * Adrenal Medulla | * Bone | * Brain | * Epididymis |
| * Esophagus | * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Mammary Gland |
| * Nerve Trigeminal | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Testis | * Thyroid Gland |
| * Trachea | | | |

MISSING

- * Peripheral Nerve, Tibial

OBSERVATIONS

- | | | | |
|--|---------------------------|-------------------------------|------------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| * Aorta | | Sarcoma | Metastatic (Skeletal Muscle) |
| * Bone Marrow | | Hypercellularity | Mild |
| | | Sarcoma | Metastatic (Skeletal Muscle) |
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Eye | Cornea, Epithelium | Hyperplasia | Minimal |
| | Cornea | Inflammation | Acute, Minimal |
| Note: Keratinization of hyperplastic corneal epithelium. | | | |
| * Heart | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| * Intestine Large, Rectum | Serosa | Sarcoma | Metastatic (Skeletal Muscle) |
| | [Sarcoma TGLs = 4-22RT] | | |
| * Intestine Small, Duodenum | Serosa | Sarcoma | Metastatic (Skeletal Muscle) |
| * Kidney | Renal Tubule | Accumulation, Hyaline Droplet | Mild |
| | | Nephropathy | Chronicprogr, Minimal |
| | Perirenal Tiss | Sarcoma | Metastatic (Skeletal Muscle) |
| * Liver | | Sarcoma | Metastatic (Skeletal Muscle) |
| * Lung | | Sarcoma | Metastatic (Skeletal Muscle) |
| Lymph Node | Iliac | Sarcoma | Metastatic (Skeletal Muscle) |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1772

TRT#: 7

SEX: Male

DAY ON TEST: 545

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1772

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------|-------------------------------|------------------------------|
| | Lumbar | Sarcoma | Metastatic (Skeletal Muscle) |
| | [Sarcoma TGLs = 3-20] | | |
| | [Sarcoma TGLs = 5-21] | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Mild |
| * Lymph Node, Mesenteric | | Sarcoma | Metastatic (Skeletal Muscle) |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| | | Sarcoma | Metastatic (Skeletal Muscle) |
| * Prostate | | Sarcoma | Metastatic (Skeletal Muscle) |
| * Seminal Vesicle | | Sarcoma | Metastatic (Skeletal Muscle) |
| Skeletal Muscle | | Sarcoma | |
| | [Sarcoma TGLs = 1-20] | | |
| * Skin | | Sarcoma | Metastatic (Skeletal Muscle) |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Thymus | | Atrophy | Mild |
| | | Sarcoma | Metastatic (Skeletal Muscle) |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Urinary Bladder | Serosa | Sarcoma | Metastatic (Skeletal Muscle) |

PRIMARY CAUSE OF DEATH - Skeletal Muscle Sarcoma

Animal Note: TGLs 2,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1773

TRT#: 7

SEX: Male

DAY ON TEST: 608

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1773

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|--------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic | * Liver |
| * Pancreas | * Parathyroid Gland | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Spinal Cord, Thoracic | * Stomach, Forestomach |
| * Stomach, Glandular | * Testis | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

MISSING

- * Mammary Gland

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- | | | | |
|-----------------------------|-----------------------------|-------------------------------|----------------------|
| * Brain | Glial Cell | Hyperplasia | Minimal |
| * Heart | Ventricle Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| | [Nephropathy TGLs = 3-13] | | |
| * Lung | | Congestion | Mild |
| | [Congestion TGLs = 4-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Mild |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Minimal |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1773

TRT#: 7

SEX: Male

DAY ON TEST: 608

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1773

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------------|------------|--------------|----------|
| * Prostate | Epithelium | Hyperplasia | Marked |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | Red Pulp | Atrophy | Mild |
| | White Pulp | Atrophy | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Moderate |
| | | Hemorrhage | Mild |
| [Hemorrhage TGLs = 1-6] | | | |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1774

TRT#: 7

SEX: Male

DAY ON TEST: 713

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1774

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Islets, Pancreatic
- * Prostate
- * Thyroid Gland
- * Bone
- * Intestine Large, Cecum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Trachea
- * Brain
- * Intestine Small, Duodenum
- * Mammary Gland
- Skeletal Muscle
- Trigeminal Ganglion
- * Epididymis
- * Intestine Small, Jejunum
- * Preputial Gland
- * Testis
- * Urinary Bladder

MISSING

- * Thymus

AUTO PRECLUDES DIAG.

- * Intestine Small, Ileum

OBSERVATIONS

- | | | | |
|---------------------------|--------------------|--------------------|--------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| * Adrenal Medulla | | Lymphoma Malignant | |
| * Bone Marrow | | Hypercellularity | Moderate |
| | | Lymphoma Malignant | |
| * Eye | Cornea | Inflammation | Acute, Minimal |
| | Cornea | Neovascularization | Minimal |
| * Harderian Gland | | Lymphoma Malignant | |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Mild |
| | | Lymphoma Malignant | |
| * Intestine Large, Colon | | Lymphoma Malignant | |
| * Intestine Large, Rectum | | Lymphoma Malignant | |
| * Kidney | Pelvis, Urothelium | Carcinoma | |
| | Pelvis | Dilation | Moderate |
| | Perirenal Tiss | Hemorrhage | Marked |
| | Renal Tubule | Necrosis | Moderate |
| | | Nephropathy | Chronicprogr, Mild |

[Carcinoma TGLs = 1-13,20]

[Dilation TGLs = 2-13]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1774

TRT#: 7

SEX: Male

DAY ON TEST: 713

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1774

ORGAN AND ACCOUNTABLE SITE STATUS

[Necrosis TGLs = 5-13]

* Liver

Lymphoma Malignant

Mixed Cell Focus

* Lung

Carcinoma

Metastatic (Kidney)

Lymphoma Malignant

[Lymphoma Malignant TGLs = 3-10]

* Lymph Node, Mandibular

Proliferation

Plasma Cell, Minimal

* Nerve Trigeminal

Degeneration

Mild

* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Foreign Body

Respirat Epith

Hyperplasia

Minimal

Inflammation

Suppurative, Minimal

Olfactory Epi

Metaplasia

Respiratory, Minimal

* Pancreas

Acinus

Hyperplasia

Mild

* Parathyroid Gland

Hyperplasia

Mild

* Peripheral Nerve, Sciatic

Degeneration

Mild

* Peripheral Nerve, Tibial

Degeneration

Mild

* Pituitary Gland

Pars Distalis

Angiectasis

Mild

* Salivary Glands

Lymphoma Malignant

* Skin

Subcut Tiss

Fibroma

Subcut Tiss

Lipoma

[Fibroma TGLs = 8-22]

[Lipoma TGLs = 7-21.1]

* Spinal Cord, Cervical

Degeneration

Minimal

* Spinal Cord, Lumbar

Degeneration

Minimal

Nerve

Degeneration

Mild

* Spinal Cord, Thoracic

Degeneration

Minimal

* Spleen

Extramedullary Hematopoiesis

Moderate

[Extramedullary Hematopoiesis TGLs = 6-12]

* Stomach, Forestomach

Lymphoma Malignant

* Stomach, Glandular

Lymphoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1774

TRT#: 7

SEX: Male

DAY ON TEST: 713

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1774

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH - Kidney Pelvis Urothelium Carcinoma

Animal Note: TGLs 4,9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1775

TRT#: 7

SEX: Male

DAY ON TEST: 693

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1775

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|---------------------------|------------------------|----------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Brain | * Epididymis | * Esophagus |
| * Harderian Gland | * Intestine Large, Rectum | * Islets, Pancreatic | * Liver |
| * Lymph Node, Mesenteric | * Pancreas | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Thyroid Gland | * Trachea | Trigeminal Ganglion |

MISSING

- | | |
|--------------------------|-----------------|
| * Intestine Large, Colon | * Mammary Gland |
|--------------------------|-----------------|

AUTO PRECLUDES DIAG.

- | | | | |
|--------------------------|-----------------------------|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|---|---------------|-------------------------------|--------------------|
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Eye | Cornea | Inflammation | Acute, Minimal |
| | Cornea | Neovascularization | Mild |
| Note: Retina autolysis precludes evaluation. | | | |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricle Rgt | Cardiomyopathy | Moderate |
| | Atrium | Dilation | Marked |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Lung | | Congestion | Mild |
| [Congestion TGLs = 2-10] | | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| Note: Approximately one-half of Level 3 available for evaluation. | | | |
| * Parathyroid Gland | | Hyperplasia | Mild |
| Note: Minimal focal hyperplasia present as well. | | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1775

TRT#: 7

SEX: Male

DAY ON TEST: 693

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1775

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|--------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 3-4] | | | |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Moderate |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Mild |
| | | Hemorrhage | Moderate |

PRIMARY CAUSE OF DEATH - Heart Ventricl Rgt Cardiomyopathy

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1776

TRT#: 7

SEX: Male

DAY ON TEST: 497

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1776

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|-------------------|--------------------------|-------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Harderian Gland |
| * Intestine Small, Duodenum | Lymph Node | * Lymph Node, Mesenteric | * Nerve Trigeminal |
| * Parathyroid Gland | * Pituitary Gland | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Spinal Cord, Lumbar | * Spinal Cord, Thoracic |
| * Stomach, Forestomach | * Testis | * Thyroid Gland | Trigeminal Ganglion |

MISSING

- * Mammary Gland

AUTO PRECLUDES DIAG.

- | | | | |
|--------------------------|----------------------------|--------------------------|---------------------------|
| * Eye | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Pancreas |
| * Prostate | * Stomach, Glandular | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|---------------------------------|-----------------------------|-------------------------|------------------------|
| * Adrenal Medulla | | Pheochromocytoma Benign | |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricle Rgt | Cardiomyopathy | Moderate |
| | Endocardium | Hyperplasia | Schwann Cell, Moderate |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| | [Nephropathy TGLs = 3-13] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| * Lung | | Congestion | Moderate |
| | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Congestion TGLs = 5-10] | | |
| Lymph Node | | | |
| Note: Deep cervical lymph node. | | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Mild |
| * Nose | | Foreign Body | |
| | | Inflammation | Suppurative, Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1776

TRT#: 7

SEX: Male

DAY ON TEST: 497

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1776

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------------|------------|--------------|--------------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | | Inflammation | Chronic Active, Moderate |
| [Inflammation TGLs = 1-16] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Moderate |
| * Thymus | | Atrophy | Mild |
| | | Hemorrhage | Moderate |
| [Hemorrhage TGLs = 6-6] | | | |

PRIMARY CAUSE OF DEATH - Heart Ventricle Rgt Cardiomyopathy

Animal Note: TGLs 2,4 = NCL (No Correlating Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1777

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1777

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

* Thyroid Gland

C Cell

Pigment

Atrophy

Cyst

Adenoma

Mild

Minimal

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1778

TRT#: 7

SEX: Male

DAY ON TEST: 531

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1778

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- Skeletal Muscle
- * Testis
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Skin
- * Thyroid Gland
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Spinal Cord, Thoracic
- * Trachea
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Stomach, Glandular
- Trigeminal Ganglion

INSUFFICIENT TISSUE

- * Thymus

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Eye
- * Kidney
- Lacrimal Gland
- * Liver
- * Lung
- * Lymph Node, Mandibular
- * Nose
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Preputial Gland
- Vacuolation, Cytoplasmic
- Hypercellularity
- Hyperplasia
- Inflammation
- Neovascularization
- Nephropathy
- Metaplasia
- Extramedullary Hematopoiesis
- Bile Duct
- Alveolus
- Olfactory Epi
- Olfactory Epi
- Pars Intermed
- Moderate
- Mild
- Marked
- Acute, Moderate
- Mild
- Chronicprogr, Mild
- Harderian GI, Minimal
- Minimal
- Minimal
- Mixed Cell, Minimal
- Histiocyte, Minimal
- Plasma Cell, Moderate
- Moderate
- Suppurative, Mild
- Respiratory, Minimal
- Minimal
- Minimal
- Chronic Active, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1778

TRT#: 7

SEX: Male

DAY ON TEST: 531

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1778

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|---|------------------------------|----------|
| * Prostate | Epithelium | Hyperplasia | Moderate |
| * Salivary Glands | Parotid GI | Atrophy | Marked |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| | [Decreased Secretory Fluid TGLs = 2-16] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Marked |
| Zymbal's Gland | | Adenoma | |
| | [Adenoma TGLs = 1-20] | | |

PRIMARY CAUSE OF DEATH - Zymbal's Gland Adenoma

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1779

TRT#: 7

SEX: Male

DAY ON TEST: 567

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1779

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Epididymis
- * Esophagus
- * Harderian Gland
- * Islets, Pancreatic
- * Liver
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Nerve Trigeminal
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- * Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Stomach, Forestomach
- * Testis
- Trigeminal Ganglion
- * Urinary Bladder

MISSING

- * Parathyroid Gland

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Pancreas
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea

OBSERVATIONS

- * Heart
 - Cardiomyopathy Minimal
 - Ventricle Rgt Cardiomyopathy Minimal
 - Atrium Dilation Marked
 - [Dilation TGLs = 1-11]
- * Kidney
 - Nephropathy Chronicprogr, Moderate
 - [Nephropathy TGLs = 2-13]
- * Lung
 - Congestion Mild
 - [Congestion TGLs = 3-10]
- * Lymph Node, Mandibular
 - Proliferation Plasma Cell, Mild
- * Nose
 - Olfactory Epi Accumulation, Hyaline Droplet Minimal
- * Peripheral Nerve, Sciatic
 - Degeneration Minimal
- * Peripheral Nerve, Tibial
 - Degeneration Minimal
- * Pituitary Gland
 - Pars Distalis Adenoma
- * Preputial Gland
 - Duct Dilation Moderate
- * Spinal Cord, Lumbar
 - Nerve Degeneration Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1779

TRT#: 7

SEX: Male

DAY ON TEST: 567

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1779

ORGAN AND ACCOUNTABLE SITE STATUS

* Spinal Cord, Thoracic

Degeneration

Minimal

* Spleen

Extramedullary Hematopoiesis

Minimal

Pigment

Mild

* Thymus

Atrophy

Moderate

PRIMARY CAUSE OF DEATH

- Kidney Nephropathy

CONTRIBUTORY CAUSE OF DEATH

- Heart Cardiomyopathy

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1780

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1780

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Seminal Vesicle
- * Stomach, Forestomach
- * Trachea
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Liver
- * Pituitary Gland
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Prostate
- * Skin
- * Testis
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Salivary Glands
- * Spinal Cord, Cervical
- * Thyroid Gland

MISSING

- * Mammary Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Moderate
- * Adrenal Medulla
 - Pheochromocytoma Benign
 - Mild
- [Pheochromocytoma Benign TGLs = 2,3-7]
- * Brain
 - Chor Plexus
 - Granular Cell Tumor Benign
- * Harderian Gland
 - Infiltration Cellular
 - Lymphocyte, Moderate
- * Heart
 - Cardiomyopathy
 - Mild
- * Kidney
 - Nephropathy
 - Chronicprogr, Mild
- * Lung
 - Alveolus
 - Infiltration Cellular
 - Histiocyte, Minimal
- * Lymph Node, Mesenteric
 - Erythrophagocytosis
 - Minimal
- * Nerve Trigeminal
 - Degeneration
 - Moderate
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Minimal
- * Peripheral Nerve, Sciatic
 - Degeneration
 - Mild
- * Peripheral Nerve, Tibial
 - Degeneration
 - Moderate
- * Preputial Gland
 - Duct
 - Dilation
 - Moderate
- [Dilation TGLs = 1-16]
- * Spinal Cord, Lumbar
 - Nerve
 - Degeneration
 - Moderate
- * Spinal Cord, Thoracic
 - Degeneration
 - Minimal
- * Spleen
 - Extramedullary Hematopoiesis
 - Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1780

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1780

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Minimal

Trigeminal Ganglion

Degeneration

Minimal

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1781

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1781

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Liver | * Lung | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Mammary Gland | * Nerve Trigeminal | * Nose |
| * Parathyroid Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

| | | | |
|-----------------------------|------------------------------|--------------------------|-----------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Mild |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Epididymis | | Hypospermia | Marked |
| | [Hypospermia TGLs = 4-16A] | | |
| * Eye | Cornea, Epithelium | Hyperplasia | Moderate |
| | Cornea | Neovascularization | Minimal |
| * Harderian Gland | | Atrophy | Minimal |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricle Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Pancreas | Acinus | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Marked |
| | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 1-16] | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1781

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1781

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------|-------------------------------|------------------------------|---------|
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | Interstit Cell | Adenoma | |
| | Germ Cell | Degeneration | Marked |
| | [Adenoma TGLs = 3-16A] | | |
| | [Degeneration TGLs = 2-16A] | | |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1782

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1782

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Seminal Vesicle
- * Stomach, Glandular
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Skin
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Spinal Cord, Cervical
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Hypospermia
 Mild
Minimal
Marked
- * Epididymis
 - Note: One epididymis is normal.
 - [Hypospermia TGLs = 3-16A]
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
 - Nephropathy
 - Mixed Cell Focus
 Minimal
Minimal
Chronicprogr, Minimal
- * Kidney
- * Liver
 - [Mixed Cell Focus TGLs = 4-12]
- * Lung
 - Alveolus
 - Lymph Node
 - [Erythrophagocytosis TGLs = 5-20.1]
 Infiltration Cellular
Erythrophagocytosis
Histiocyte, Minimal
Moderate
- * Lymph Node, Mandibular
 - Pancreatic
 - Lymph Sinus
- * Nerve Trigeminal
 - Ectasia
 - Degeneration
 Mild
Moderate
- * Nose
 - Olfactory Epi
 Accumulation, Hyaline Droplet
Minimal
- * Peripheral Nerve, Sciatic
 - Degeneration
 Marked
- * Peripheral Nerve, Tibial
 - Degeneration
 Marked
- * Preputial Gland
 - Duct
 - Dilation
 - Inflammation
 Mild
Chronic Active, Mild

Note: One of pair available for evaluation.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1782

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1782

ORGAN AND ACCOUNTABLE SITE STATUS

[Dilation TGLs = 1-16]

| | | | |
|-------------------------------|------------|------------------------------|----------|
| * Prostate | Epithelium | Hyperplasia | Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Marked |
| Note: One testis is normal | | | |
| [Degeneration TGLs = 2-16A] | | | |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| * Thyroid Gland | C Cell | Adenoma | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1783

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1783

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung |
| * Lymph Node, Mesenteric | * Mammary Gland | * Parathyroid Gland | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|-----------------------------|-----------------------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Moderate |
| | | Hypertrophy | Mild |
| * Brain | Pineal Gland | Vacuolation, Cytoplasmic | Mild |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricle Rgt | Cardiomyopathy | Minimal |
| * Kidney | Renal Tubule | Cyst | |
| | | Nephropathy | Chronicprogr, Mild |
| | [Nephropathy TGLs = 1-13] | | |
| * Liver | | Eosinophilic Focus | |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | | Inflammation | Suppurative, Minimal |
| | Olfactory Epi | Metaplasia | Respiratory, Minimal |
| * Pancreas | Acinus | Atrophy | Minimal |
| | Acinus | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Intermed | Cyst | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1783

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1783

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|------------|------------------------------|-------------------------|
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| * Thyroid Gland | C Cell | Carcinoma | |
| | C Cell | Hyperplasia | Moderate |

[Carcinoma TGLs = 2-8]

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1784

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1784

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- Skeletal Muscle
- * Trachea
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Skin
- Trigeminal Ganglion
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Hyperplasia
- * Eye
 - Retina
 - Atrophy
 - Cornea, Epithelium
 - Hyperplasia
 - Cornea
 - Neovascularization
- * Heart
 - Cardiomyopathy
- * Kidney
 - Ventricl Rgt
 - Cardiomyopathy
 - Nephropathy
 - Chronicprogr, Mild
- * Liver
 - [Nephropathy TGLs = 1-13]
 - Mixed Cell Focus
- * Lung
 - Hepatocyte
 - Vacuolation, Cytoplasmic
 - Alveolus
 - Infiltration Cellular
 - [Infiltration Cellular TGLs = 5-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Pancreas
 - Acinus
 - Hyperplasia
 - [Hyperplasia TGLs = 2,3,4-6,20,21]
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1784

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1784

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|------------|------------------------------|-------------------------|
| * Preputial Gland | Duct | Dilation | Minimal |
| * Prostate | Epithelium | Hyperplasia | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Minimal |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1785

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1785

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Aorta | * Bone | * Bone Marrow | * Epididymis |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Liver | * Lung |
| * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland | * Preputial Gland |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Testis | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|---|----------------|-----------------------------------|-----------------------|
| * Adrenal Cortex | | Accessory Adrenal Cortical Nodule | |
| [Accessory Adrenal Cortical Nodule | TGLs = 1-7] | | |
| * Adrenal Medulla | | Hyperplasia | Mild |
| * Brain | | Compression | Minimal |
| | Glial Cell | Hyperplasia | Marked |
| Note: Increased cellularity focally within brainstem. | | | |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Minimal |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| | | Foreign Body | |
| | | Inflammation | Suppurative, Minimal |
| | Olfactory Epi | Metaplasia | Respiratory, Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma | TGLs = 4,5-4] | | |
| * Prostate | Epithelium | Hyperplasia | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1785

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1785

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|----------|
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |

Animal Note: TGLs 3,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1786

TRT#: 7

SEX: Male

DAY ON TEST: 665

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1786

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Liver |
| * Lung | * Lymph Node, Mesenteric | * Mammary Gland | * Pancreas |
| * Prostate | * Salivary Glands | * Seminal Vesicle | Skeletal Muscle |
| * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular | * Testis |
| * Thyroid Gland | Trigeminal Ganglion | * Urinary Bladder | |

MISSING

- * Parathyroid Gland

AUTO PRECLUDES DIAG.

- * Trachea

OBSERVATIONS

- | | | | |
|--|----------------|-------------------------------|------------------------|
| * Bone Marrow | | Hypercellularity | Minimal |
| * Heart | | Cardiomyopathy | Moderate |
| | Ventricl Rgt | Cardiomyopathy | Mild |
| | Endocardium | Hyperplasia | Schwann Cell, Minimal |
| * Islets, Pancreatic | | Adenoma | |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Preputial Gland | | Inflammation | Chronic Active, Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1786

TRT#: 7

SEX: Male

DAY ON TEST: 665

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1786

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLs = 2-16]

| | | | |
|--|-------------|--------------|---------------------|
| * Skin | Subcut Tiss | Inflammation | Suppurative, Marked |
| Note: Possible ruptured epithelial inclusion cyst. | | | |

[Inflammation TGLs = 1-20]

| | | | |
|-------------------------|------------|------------------------------|----------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Mild |
| | | Hemorrhage | Moderate |

PRIMARY CAUSE OF DEATH - Heart Cardiomyopathy

CONTRIBUTORY CAUSE OF DEATH - Heart Ventricl Rgt Cardiomyopathy

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1787

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1787

ORGAN AND ACCOUNTABLE SITE STATUS

[Dilation TGLs = 1-16]

| | | | |
|-------------------------|----------|--------------|----------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | Red Pulp | Atrophy | Moderate |
| | | Pigment | Moderate |

[Atrophy TGLs = 2-12]

| | | | |
|-----------------|--------|-------------|--------|
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Adenoma | |
| | C Cell | Hyperplasia | Marked |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1788

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1788

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Preputial Gland
- * Skin
- * Thyroid Gland
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Prostate
- * Spinal Cord, Cervical
- * Trachea
- * Bone Marrow
- * Heart
- * Intestine Small, Duodenum
- * Liver
- * Parathyroid Gland
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lung
- * Pituitary Gland
- * Seminal Vesicle
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hyperplasia
- * Adrenal Medulla
 - Hyperplasia
- [Hyperplasia TGLs = 5,6-7]
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Epididymis
 - Exfoliated Germ Cell
- * Harderian Gland
 - Hyperplasia
- * Kidney
 - Nephropathy
- [Nephropathy TGLs = 3,4-13]
- Lymph Node
 - Lumbar, Lymph Sinus
 - Ectasia
- [Ectasia TGLs = 2-20]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Lymph Node, Mesenteric
 - Lymph Sinus
 - Ectasia
 - Erythrophagocytosis
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Pancreas
 - Adenoma
- [Adenoma TGLs = 7-6]
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1788

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1788

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-----------|--------------|------------------------|
| Skeletal Muscle | | Degeneration | Moderate |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | Red Pulp | Atrophy | Moderate |
| | | Pigment | Marked |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Marked |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| Trigeminal Ganglion | | Degeneration | Moderate |

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1789

TRT#: 7

SEX: Male

DAY ON TEST: 582

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1789

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Cecum
- * Pancreas
- * Seminal Vesicle
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Preputial Gland
- * Skin
- * Stomach, Glandular
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Prostate
- * Spinal Cord, Cervical
- * Testis
- * Bone Marrow
- * Harderian Gland
- * Liver
- * Salivary Glands
- * Spinal Cord, Thoracic
- Trigeminal Ganglion

MISSING

- * Mammary Gland
- * Parathyroid Gland

AUTO PRECLUDES DIAG.

- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
- * Brain
- * Heart
- * Islets, Pancreatic
- [Carcinoma TGLs = 1,5-6,20]
- * Kidney
- * Lung
- [Congestion TGLs = 3-10]
- * Lymph Node, Mandibular
- * Lymph Node, Mesenteric
- * Nerve Trigeminal
- * Nose
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- Skeletal Muscle
- Meninges
- Ventricl Rgt
- Olfactory Epi
- Pars Distalis
- Hyperplasia
- Granular Cell Tumor Benign
- Cardiomyopathy
- Cardiomyopathy
- Carcinoma
- Nephropathy
- Congestion
- Proliferation
- Erythrophagocytosis
- Degeneration
- Accumulation, Hyaline Droplet
- Degeneration
- Degeneration
- Degeneration
- Hyperplasia
- Degeneration
- Mild
- Minimal
- Mild
- Multiple
- Chronicprogr, Mild
- Mild
- Plasma Cell, Minimal
- Moderate
- Moderate
- Mild
- Moderate
- Mild
- Moderate
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1789

TRT#: 7

SEX: Male

DAY ON TEST: 582

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1789

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------------|------------|--------------|---------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| [Atrophy TGLs = 4-12] | | | |
| * Thymus | | Hemorrhage | Marked |
| [Hemorrhage TGLs = 6-6] | | | |
| * Thyroid Gland | C Cell | Adenoma | |

PRIMARY CAUSE OF DEATH - Islets, Pancreatic Carcinoma

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1790

TRT#: 7

SEX: Male

DAY ON TEST: 500

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1790

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Harderian Gland
- * Liver
- * Pancreas
- * Salivary Glands
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Epididymis
- * Intestine Large, Cecum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Seminal Vesicle
- * Spinal Cord, Lumbar
- * Testis
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Mammary Gland
- * Pituitary Gland
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Thyroid Gland
- * Bone Marrow
- * Eye
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Prostate
- * Skin
- * Stomach, Forestomach
- Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Trachea

OBSERVATIONS

- * Adrenal Medulla
 - Note: Extension of what appears to be neoplastic ganglion tissue into adjacent large vessel.
 - [Pheochromocytoma Malignant TGLs = 1-7,7.1,20RT]
 - * Heart
 - Ventricl Rgt
 - * Kidney
 - * Lung
 - [Hemorrhage TGLs = 3-10]
 - * Lymph Node, Mandibular
 - * Nose
 - Respirat Epith
 - * Peripheral Nerve, Sciatic
 - * Peripheral Nerve, Tibial
 - * Preputial Gland
 - * Spleen
 - White Pulp
 - * Thymus
- Pheochromocytoma Malignant
- Cardiomyopathy
- Cardiomyopathy
- Nephropathy
- Hemorrhage
- Proliferation
- Accumulation, Hyaline Droplet
- Degeneration
- Degeneration
- Inflammation
- Atrophy
- Pigment
- Atrophy
- Hemorrhage
- Minimal
- Mild
- Chronicprogr, Minimal
- Moderate
- Plasma Cell, Mild
- Moderate
- Minimal
- Mild
- Chronic Active, Moderate
- Mild
- Mild
- Moderate
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1790

TRT#: 7

SEX: Male

DAY ON TEST: 500

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1790

ORGAN AND ACCOUNTABLE SITE STATUS

[Hemorrhage TGLs = 2-6]

PRIMARY CAUSE OF DEATH - Adrenal Medulla Pheochromocytoma Malignant

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1791

TRT#: 7

SEX: Male

DAY ON TEST: 201

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1791

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Intestine Large, Rectum
- * Mammary Gland
- * Preputial Gland
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Trachea
- * Adrenal Medulla
- * Epididymis
- * Liver
- * Nerve Trigeminal
- * Prostate
- * Skin
- * Spleen
- Trigeminal Ganglion
- * Aorta
- * Esophagus
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Salivary Glands
- * Spinal Cord, Cervical
- * Stomach, Forestomach
- * Bone
- * Harderian Gland
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Seminal Vesicle
- * Spinal Cord, Lumbar
- * Testis

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Ileum
- * Stomach, Glandular
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Thyroid Gland
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Urinary Bladder
- * Intestine Small, Duodenum
- * Pancreas

OBSERVATIONS

- * Bone Marrow
 - * Heart
 - * Kidney
 - Note: Some regions of kidneys are autolytic
 - * Lung
 - [Congestion TGLs = 2-10]
 - * Nose
 - Note: Approximately one-half of Level 3 not present
 - * Peripheral Nerve, Sciatic
 - * Peripheral Nerve, Tibial
 - Note: Cross section not present
 - * Thymus
- | | | |
|---------------|-------------------------------|-----------------------|
| | Hypercellularity | Minimal |
| Ventricle Rgt | Cardiomyopathy | Minimal |
| | Cardiomyopathy | Minimal |
| | Nephropathy | Chronicprogr, Minimal |
| | Congestion | Moderate |
| Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | Accumulation, Hyaline Droplet | Minimal |
| | Degeneration | Minimal |
| | Degeneration | Minimal |
| | Hemorrhage | Moderate |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: TGLs 1,3 = NCL (No Corresponding Lesion)

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1793

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1793

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Preputial Gland
- * Skin
- * Testis
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Mammary Gland
- * Prostate
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Salivary Glands
- * Stomach, Forestomach
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Pheochromocytoma Benign
- * Eye
 - Retina
 - Atrophy
- * Heart
 - Cardiomyopathy
- * Islets, Pancreatic
 - Adenoma
- * Kidney
 - [Nephropathy TGLs = 6-13]
 - Nephropathy
- * Liver
 - [Mixed Cell Focus TGLs = 4-12]
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - Congestion
 - Infiltration Cellular
- * Lymph Node, Mandibular
 - [Congestion TGLs = 9-10]
 - [Infiltration Cellular TGLs = 8-10]
 - Hyperplasia
 - Proliferation
- * Nerve Trigeminal
 - [Proliferation TGLs = 1-9]
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Pancreas
 - Acinus
 - Hyperplasia
- * Peripheral Nerve, Sciatic
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1793

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1793

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|-------|------------------------------|----------|
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| Skeletal Muscle | | Degeneration | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Ectopic Parathyroid Gland | |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGLs 2,3,5,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1794

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1794

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lung
- * Parathyroid Gland
- * Skin
- * Trachea
- * Aorta
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Prostate
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Salivary Glands
- * Testis
- * Urinary Bladder
- * Bone Marrow
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Seminal Vesicle
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
- * Eye
- * Kidney
- * Liver
- [Mixed Cell Focus TGLs = 1-12]
- * Lymph Node, Mandibular
- * Nose
- * Pancreas
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Preputial Gland
- Skeletal Muscle
- * Spinal Cord, Cervical
- * Spinal Cord, Lumbar
- * Spinal Cord, Thoracic
- * Spleen
- Hyperplasia
- Hyperplasia
- Inflammation
- Neovascularization
- Nephropathy
- Mixed Cell Focus
- Hyperplasia
- Proliferation
- Accumulation, Hyaline Droplet
- Hyperplasia
- Degeneration
- Degeneration
- Hyperplasia
- Dilation
- Inflammation
- Degeneration
- Degeneration
- Degeneration
- Extramedullary Hematopoiesis
- Marked
- Moderate
- Acute, Minimal
- Minimal
- Chronicprogr, Minimal
- Lymphocyte, Minimal
- Plasma Cell, Minimal
- Mild
- Mild
- Moderate
- Moderate
- Minimal
- Moderate
- Chronic Active, Minimal
- Minimal
- Minimal
- Marked
- Mild
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1794

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1794

ORGAN AND ACCOUNTABLE SITE STATUS

* Stomach, Glandular

Epithelium

Pigment

Mild

Hyperplasia

Focal, Mild

* Thymus

Atrophy

Mild

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1795

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1795

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Epididymis |
| * Esophagus | * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lung | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nerve Trigeminal | * Parathyroid Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Thyroid Gland | * Trachea | * Urinary Bladder |

MISSING

- * Thymus

OBSERVATIONS

- | | | | |
|--------------------------|--|--------------------------|--------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Marked |
| | [Pheochromocytoma Benign TGLs = 5-7] | Pheochromocytoma Benign | |
| * Brain | | Glioma Malignant | |
| | | Mineral | Minimal |
| | Pineal Gland | Vacuolation, Cytoplasmic | Minimal |
| * Eye | Cornea | Neovascularization | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| | Artery, Pericardium | Inflammation | Chronic Active, Moderate |
| * Kidney | Renal Tubule | Cyst | |
| | | Nephropathy | Chronicprogr, Mild |
| | [Cyst TGLs = 6-20] | | |
| * Liver | | Eosinophilic Focus | |
| | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Mild |
| | [Ectasia TGLs = 1-9] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1795

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1795

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------------------|-------------------------------|----------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 8-4] | | |
| * Preputial Gland | Duct | Dilation | Mild |
| | [Dilation TGLs = 2,3-16] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGLs 4,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1797

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1797

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lung | * Lymph Node, Mesenteric |
| * Mammary Gland | * Pancreas | * Parathyroid Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Spinal Cord, Thoracic |
| * Stomach, Forestomach | * Stomach, Glandular | * Testis | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|-----------------------------|--------------------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Minimal |
| | | Vacuolation, Cytoplasmic | Mild |
| * Eye | Cornea, Epithelium | Hyperplasia | Mild |
| | Cornea | Neovascularization | Minimal |
| * Heart | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Carcinoma | |
| | [Carcinoma TGLs = 2-6] | | |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| * Prostate | | Inflammation | Acute, Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1797

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1797

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|--------|------------------------------|-------------|
| * Seminal Vesicle [Inflammation TGLs = 1-16] | | Inflammation | Acute, Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Adenoma | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1798

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1798

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Seminal Vesicle
- * Testis
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Stomach, Forestomach
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Eye
 - Retina
 - Atrophy
- * Heart
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- * Liver
 - Mixed Cell Focus
- [Mixed Cell Focus TGLs = 2-12]
- * Lung
 - Alveolus
 - Infiltration Cellular
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration
- * Pituitary Gland
 - Pars Distalis
 - Hyperplasia
- * Preputial Gland
 - Duct
 - Dilation
- * Prostate
 - Inflammation
- Skeletal Muscle
 - Degeneration
- * Spinal Cord, Cervical
 - Degeneration
- * Spinal Cord, Lumbar
 - Nerve
 - Degeneration
- * Spinal Cord, Thoracic
 - Degeneration
- * Spleen
 - Extramedullary Hematopoiesis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1798

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1798

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------|--------|-------------|----------|
| * Thymus | | Atrophy | Moderate |
| * Thyroid Gland | C Cell | Cyst | |
| Tissue NOS | Fat | Hyperplasia | Moderate |
| | | Necrosis | Moderate |
| [Necrosis TGLs = 1-20] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1799

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1799

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Epididymis | * Esophagus | * Eye | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung | * Mammary Gland |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Testis | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|-----------------------------|----------------------------------|-------------------------------|--------------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Minimal |
| * Brain | | Glioma Malignant | |
| * Harderian Gland | | Atrophy | Minimal |
| * Heart | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Clear Cell Focus | |
| | | Mixed Cell Focus | |
| | [Mixed Cell Focus TGLs = 4-12] | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Lymph Node, Mesenteric | | Hyperplasia | Lymphocyte, Minimal |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| | Respirat Epith | Hyperplasia | Minimal |
| | | Inflammation | Suppurative, Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | Duct | Dilation | Marked |
| | | Inflammation | Chronic Active, Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1799

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1799

ORGAN AND ACCOUNTABLE SITE STATUS

[Dilation TGLs = 1,2-16]

| | | | |
|-------------------------|--------|------------------------------|----------|
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| * Thyroid Gland | C Cell | Carcinoma | |

[Carcinoma TGLs = 5-8]

Animal Note: TGLs 3,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1800

TRT#: 7

SEX: Male

DAY ON TEST: 717

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1800

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Small, Duodenum
- * Nose
- * Stomach, Forestomach
- * Aorta
- * Harderian Gland
- * Intestine Small, Jejunum
- * Prostate
- * Stomach, Glandular
- * Bone
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Salivary Glands
- * Trachea
- * Bone Marrow
- * Intestine Large, Rectum
- * Mammary Gland
- * Seminal Vesicle
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Ileum

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adren Medulla
 - Note: One of pair available for evaluation.
- * Brain
 - Mineral
- * Epididymis
 - Exfoliated Germ Cell
 - Hypospermia
- * Eye
 - Retina
 - Atrophy
 - Cornea
 - Inflammation
 - Cornea
 - Neovascularization
- * Heart
 - Cardiomyopathy
- * Kidney
 - Ventricl Rgt
 - Cardiomyopathy
 - Nephropathy
- [Nephropathy TGLs = 1-13]
- * Liver
 - Mixed Cell Focus
- * Lung
 - Congestion
- [Congestion TGLs = 3-10]
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Hyperplasia
 - Proliferation
- [Proliferation TGLs = 5-9]
- * Lymph Node, Mesenteric
 - Erythrophagocytosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1800

TRT#: 7

SEX: Male

DAY ON TEST: 717

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1800

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|------------------------------|--------------------------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | | | |
| Note: Level 3 unavailable for evaluation. | | | |
| * Pancreas | Acinus | Atrophy | Minimal |
| | Acinus | Hyperplasia | Mild |
| * Parathyroid Gland | | Hyperplasia | Mild |
| [Hyperplasia TGLs = 4-8] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Minimal |
| Note: Pars distalis available for evaluation. | | | |
| * Preputial Gland | Duct | Dilation | Marked |
| [Dilation TGLs = 6-16] | | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Skin | Sebaceous GI | Adenoma | |
| [Adenoma TGLs = 8-20] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Moderate |
| * Thyroid Gland | C Cell | Carcinoma | |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1801

TRT#: 7

SEX: Male

DAY ON TEST: 529

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1801

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Lung
- * Parathyroid Gland
- * Seminal Vesicle
- * Spinal Cord, Thoracic
- * Thyroid Gland
- * Bone Marrow
- * Harderian Gland
- * Lymph Node, Mesenteric
- * Pituitary Gland
- Skeletal Muscle
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Brain
- * Intestine Large, Rectum
- * Mammary Gland
- * Prostate
- * Skin
- * Stomach, Glandular
- * Urinary Bladder
- * Epididymis
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Salivary Glands
- * Spinal Cord, Cervical
- * Testis

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Ileum
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Intestine Large, Colon
- * Trachea
- * Intestine Small, Duodenum

INSUFFICIENT TISSUE

- * Thymus

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Bone
- * Heart
- * Kidney
- [Nephropathy TGLs = 1-13]
- * Liver
- * Lymph Node, Mandibular
- * Nose
- * Pancreas
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Preputial Gland
- * Spinal Cord, Lumbar
- * Spleen
- Endocardium
- Olfactory Epi
- Acinus
- Nerve
- Hyperplasia
- Pheochromocytoma Benign
- Fibrous Osteodystrophy
- Schwannoma Malignant
- Nephropathy
- Mixed Cell Focus
- Proliferation
- Accumulation, Hyaline Droplet
- Hyperplasia
- Degeneration
- Degeneration
- Inflammation
- Degeneration
- Extramedullary Hematopoiesis
- Minimal
- Minimal
- Chronicprogr, Moderate
- Plasma Cell, Minimal
- Moderate
- Minimal
- Minimal
- Mild
- Chronic Active, Mild
- Mild
- Mild

PRIMARY CAUSE OF DEATH - Heart Endocardium Schwannoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1801

TRT#: 7

SEX: Male

DAY ON TEST: 529

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1801

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGLs 2,3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1802

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1802

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lung |
| * Lymph Node, Mesenteric | * Parathyroid Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Thyroid Gland | * Trachea | * Urinary Bladder |

MISSING

Trigeminal Ganglion

OBSERVATIONS

| | | | |
|-----------------------------|---------------|-------------------------------|--------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Carcinoma | |
| [Carcinoma TGLs = 3-6] | | | |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | | Clear Cell Focus | |
| | | Eosinophilic Focus | |
| | | Mixed Cell Focus | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Minimal |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Moderate |
| [Hyperplasia TGLs = 3-6] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Preputial Gland | Duct | Dilation | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1802

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1802

ORGAN AND ACCOUNTABLE SITE STATUS

[Dilation TGLs = 4-16]

| | | | |
|-------------------------|-------|------------------------------|---------|
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |

Animal Note: TGLs 1,2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1803

TRT#: 7

SEX: Male

DAY ON TEST: 717

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1803

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Esophagus
- * Harderian Gland
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Preputial Gland
- * Prostate
- * Salivary Glands
- * Skin
- * Stomach, Glandular
- * Trachea
- * Urinary Bladder

MISSING

- * Thymus

OBSERVATIONS

- * Epididymis
 - Exfoliated Germ Cell Moderate
 - Hypospermia Marked
 - [Hypospermia TGLs = 7-16A]
- * Eye
 - Retina Atrophy Minimal
- * Heart
 - Cardiomyopathy Minimal
- * Islets, Pancreatic
 - Carcinoma Hyperplasia Minimal
 - [Carcinoma TGLs = 1-6]
- * Kidney
 - Nephropathy Chronicprogr, Moderate
 - [Nephropathy TGLs = 5-13]
- * Liver
 - Hepatocyte Degeneration Mild
 - Hepatocyte Vacuolation, Cytoplasmic Mild
 - [Degeneration TGLs = 10-12]
- * Lung
 - Alveolus Infiltration Cellular Histiocyte, Mild
 - [Infiltration Cellular TGLs = 3-10]
- * Lymph Node, Mandibular
 - Hyperplasia Lymphocyte, Minimal
 - Proliferation Plasma Cell, Minimal
- * Nerve Trigeminal
 - Degeneration Mild
- * Nose
 - Olfactory Epi Accumulation, Hyaline Droplet Mild
- * Pancreas
 - Acinus Atrophy Mild
- * Parathyroid Gland
 - Hyperplasia Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1803

TRT#: 7

SEX: Male

DAY ON TEST: 717

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1803

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|---------------------------|----------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 4-4] | | |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | [Decreased Secretory Fluid TGLs = 8-16] | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | White Pulp | Atrophy | Minimal |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Moderate |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Marked |
| | | Inflammation | Chronic Active, Mild |
| * Testis | Germ Cell | Degeneration | Moderate |
| | [Degeneration TGLs = 6-16A] | | |
| * Thyroid Gland | C Cell | Adenoma | |
| | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Mild |

PRIMARY CAUSE OF DEATH - Islets, Pancreatic Carcinoma

Animal Note: TGL 9 = NCL (No Corresponding Lesion)

Animal Note: TGL 2 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1804

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1804

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Aorta | * Brain | * Epididymis | * Esophagus |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lymph Node, Mesenteric |
| * Parathyroid Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|---|--------------------------------------|------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Moderate |
| | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Mild |
| Note: One of pair available for evaluation. | | | |
| * Bone | | Fibrous Osteodystrophy | Minimal |
| * Bone Marrow | | Hypercellularity | Minimal |
| * Eye | Cornea | Fibrosis | Minimal |
| | Cornea, Epithelium | Hyperplasia | Mild |
| | Cornea | Inflammation | Acute, Minimal |
| | Cornea | Neovascularization | Minimal |
| * Heart | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| | [Cardiomyopathy TGLs = 13-11] | | |
| * Islets, Pancreatic | | Adenoma | |
| | | Hyperplasia | Marked |
| | [Adenoma TGLs = 20-6.1] | | |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 9,10-13] | | |
| * Liver | | Angiectasis | Minimal |
| | | Leukemia Mononuclear | |
| | Hepatocyte | Necrosis | Mild |
| | [Leukemia Mononuclear TGLs = 7-12] | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1804

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1804

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|-------------------------------|-------------------------|
| [Infiltration Cellular TGLs = 15,16,21-10,21] | | | |
| Lymph Node | Renal | Leukemia Mononuclear | |
| | Mediastinal | Leukemia Mononuclear | |
| [Leukemia Mononuclear TGLs = 11-20] | | | |
| [Leukemia Mononuclear TGLs = 12-6.1] | | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Mild |
| | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Mild |
| [Ectasia TGLs = 1-9] | | | |
| * Mammary Gland | Duct | Dilation | Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Moderate |
| [Hyperplasia TGLs = 20-14] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 18-4] | | | |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Minimal |
| [Dilation TGLs = 3,4-16.1] | | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Skin | | Keratoacanthoma | |
| [Keratoacanthoma TGLs = 2-20] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Leukemia Mononuclear | |
| | | Pigment | Minimal |
| [Leukemia Mononuclear TGLs = 6-12] | | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1804

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1804

ORGAN AND ACCOUNTABLE SITE STATUS

* Testis

Germ Cell

Degeneration

Minimal

Artery

Inflammation

Chronic Active, Marked

* Thymus

Atrophy

Moderate

Animal Note: TGLs 5,14,17,19 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1806

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1806

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Salivary Glands
- * Stomach, Forestomach
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Liver
- * Parathyroid Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Preputial Gland
- Skeletal Muscle
- * Thymus
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Prostate
- * Spinal Cord, Cervical
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Epididymis
- * Eye
 - Cornea, Epithelium
 - Cornea
 - Cornea, Epithelium
 - Cornea
- * Heart
 - Hypospermia
 - Degeneration
 - Fibrosis
 - Hyperplasia
 - Neovascularization
 - Cardiomyopathy
- * Islets, Pancreatic
 - Hyperplasia
- * Kidney
 - Nephropathy
- * Lung
 - Alveolus
 - Infiltration Cellular TGLs = 2-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Infiltration Cellular
- * Nose
 - Olfactory Epi
- * Pancreas
 - Accumulation, Hyaline Droplet
- Penis
 - Atrophy
 - Concretion
 - [Concretion TGLs = 1-20]
- * Peripheral Nerve, Sciatic
 - Degeneration

Note: Longitudinal section available for evaluation.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1806

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1806

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---------------|------------------------------|-------------|
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Skin | Prepuce | Hyperplasia | Moderate |
| | Prepuce | Inflammation | Acute, Mild |
| | Prepuce | Ulcer | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Urinary Bladder | | Hemorrhage | Mild |

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1807

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1807

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Salivary Glands
- * Stomach, Forestomach
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Seminal Vesicle
- * Stomach, Glandular
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Liver
- * Parathyroid Gland
- Skeletal Muscle
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Prostate
- * Spinal Cord, Cervical
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hyperplasia Minimal
 - Hypertrophy Minimal
- * Epididymis
 - Hypospermia Mild
- * Heart
 - Cardiomyopathy Minimal
 - Ventricl Rgt
 - Cardiomyopathy Minimal
 - [Cardiomyopathy TGLs = 4,7-11]
- * Islets, Pancreatic
 - Hyperplasia Minimal
- * Kidney
 - Nephropathy Chronicprogr, Minimal
- * Lung
 - Alveolus
 - Infiltration Cellular Histiocyte, Minimal
 - [Infiltration Cellular TGLs = 5-10]
- * Lymph Node, Mandibular
 - Hyperplasia Lymphocyte, Minimal
 - Proliferation Plasma Cell, Minimal
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet Moderate
- * Pancreas
 - Acinus
 - Hyperplasia Mild
- * Peripheral Nerve, Sciatic
 - Degeneration Moderate
- * Peripheral Nerve, Tibial
 - Degeneration Moderate
- * Pituitary Gland
 - Pars Distalis
 - Hyperplasia Moderate
- * Preputial Gland
 - Duct
 - Dilation Mild
 - [Dilation TGLs = 1-16]
- * Skin
 - Subcut Tiss
 - Fibroma
 - [Fibroma TGLs = 6-20]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1807

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1807

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|-----------|------------------------------|----------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Moderate |
| [Degeneration TGLs = 2-16A] | | | |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1808

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1808

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------------------------------|------------------------------|-------------------------|
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Prostate | Epithelium | Hyperplasia | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Moderate |
| | [Degeneration TGLs = 1-16A] | | |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Carcinoma | |
| | [Carcinoma TGLs = 6-8] | | |

Animal Note: TGL 3,4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1809

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1809

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nose | * Parathyroid Gland | * Preputial Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | Skeletal Muscle |
| * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular | * Testis |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

| | | | |
|-----------------------------|-------------------------------|-----------------------|------------------------|
| * Adrenal Cortex | | Carcinoma | |
| | | Hyperplasia | Moderate |
| | | Hypertrophy | Minimal |
| | [Carcinoma TGLs = 4-7] | | |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Adenoma | |
| | [Adenoma TGLs = 7-6] | | |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| | [Nephropathy TGLs = 3-13] | | |
| * Liver | | Clear Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Pancreas | Acinus | Hyperplasia | Moderate |
| | [Hyperplasia TGLs = 7-6,14] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Skin | | Inflammation | Chronic Active, Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1809

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1809

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLs = 6-20]

* Spinal Cord, Lumbar

Nerve

Degeneration

Marked

* Spinal Cord, Thoracic

Degeneration

Mild

* Spleen

Extramedullary Hematopoiesis

Mild

Pigment

Minimal

* Thymus

Atrophy

Mild

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1812

TRT#: 7

SEX: Male

DAY ON TEST: 440

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1812

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|-----------------------------|----------------------------|-------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Brain | * Epididymis | * Esophagus |
| * Harderian Gland | * Intestine Large, Colon | * Intestine Large, Rectum | * Islets, Pancreatic |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Nerve Trigeminal | * Pancreas |
| * Parathyroid Gland | * Peripheral Nerve, Sciatic | * Peripheral Nerve, Tibial | * Pituitary Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Spinal Cord, Lumbar | * Spinal Cord, Thoracic |
| * Stomach, Forestomach | * Stomach, Glandular | * Testis | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

MISSING

- * Mammary Gland

AUTO PRECLUDES DIAG.

- | | | | |
|----------------------------|--------------------------|-----------------------------|--------------------------|
| * Eye | * Intestine Large, Cecum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | | | |

OBSERVATIONS

- | | | | |
|---|----------------------------|-------------------------------|------------------------|
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricle Rgt | Cardiomyopathy | Mild |
| | Atrium | Dilation | Mild |
| | [Dilation TGLs = 4-11] | | |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Infiltration Cellular | Mixed Cell, Minimal |
| * Lung | | Congestion | Marked |
| | [Congestion TGLs = 3-10] | | |
| Mesentery | | Necrosis | Mild |
| | [Necrosis TGLs = 1-20] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1812

TRT#: 7

SEX: Male

DAY ON TEST: 440

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1812

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------|------------|--------------|----------------------|
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| * Spleen | White Pulp | Atrophy | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Moderate |
| | | Hemorrhage | Moderate |

PRIMARY CAUSE OF DEATH - Heart Ventricl Rgt Cardiomyopathy

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1813

TRT#: 7

SEX: Male

DAY ON TEST: 608

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1813

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Esophagus
- * Eye
- * Harderian Gland
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Nerve Trigeminal
- * Parathyroid Gland
- * Pituitary Gland
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- * Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Spinal Cord, Thoracic
- * Stomach, Forestomach
- * Stomach, Glandular
- * Trachea
- Trigeminal Ganglion
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Small, Duodenum
- * Intestine Small, Ileum

OBSERVATIONS

- * Epididymis
 - * Heart
 - * Kidney
 - * Liver
 - * Lung
 - * Lymph Node, Mandibular
 - * Nose
 - * Pancreas
 - * Peripheral Nerve, Sciatic
 - * Peripheral Nerve, Tibial
 - * Preputial Gland
 - * Spinal Cord, Lumbar
 - * Spleen
 - * Testis
 - * Thymus
- [Congestion TGLs = 2-10]
- Ventricl Rgt
 - Hepatocyte
 - Olfactory Epi
 - Acinus
 - Nerve
 - White Pulp
 - Germ Cell
- Exfoliated Germ Cell
 - Cardiomyopathy
 - Cardiomyopathy
 - Nephropathy
 - Eosinophilic Focus
 - Necrosis
 - Congestion
 - Proliferation
 - Accumulation, Hyaline Droplet
 - Atrophy
 - Degeneration
 - Degeneration
 - Inflammation
 - Degeneration
 - Atrophy
 - Pigment
 - Degeneration
 - Hemorrhage
- Minimal
 - Minimal
 - Mild
 - Chronicprogr, Mild
 - Minimal
 - Moderate
 - Plasma Cell, Minimal
 - Minimal
 - Minimal
 - Moderate
 - Moderate
 - Chronic Active, Moderate
 - Mild
 - Minimal
 - Mild
 - Minimal
 - Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1813

TRT#: 7

SEX: Male

DAY ON TEST: 608

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1813

ORGAN AND ACCOUNTABLE SITE STATUS

[Hemorrhage TGLs = 1-6]

* Thyroid Gland

C Cell

Hyperplasia

Marked

PRIMARY CAUSE OF DEATH

- Heart Ventricl Rgt Cardiomyopathy

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1814

TRT#: 7

SEX: Male

DAY ON TEST: 665

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1814

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Parathyroid Gland
- Skeletal Muscle
- Trigeminal Ganglion
- * Bone
- * Esophagus
- * Pituitary Gland
- * Skin
- * Bone Marrow
- * Liver
- * Prostate
- * Stomach, Forestomach
- * Brain
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Testis

MISSING

- * Mammary Gland

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Stomach, Glandular
- * Harderian Gland
- * Intestine Small, Duodenum
- * Kidney
- * Preputial Gland
- * Thyroid Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Trachea
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nose
- * Spleen
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Heart
- [Cardiomyopathy TGLs = 2-20]
- * Lung
- [Congestion TGLs = 3-10]
- * Nerve Trigeminal
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Spinal Cord, Cervical
- * Spinal Cord, Lumbar
- Nerve
- * Spinal Cord, Thoracic
- * Thymus
- Hypertrophy
- Hyperplasia
- Cardiomyopathy
- Cardiomyopathy
- Congestion
- Degeneration
- Degeneration
- Degeneration
- Degeneration
- Degeneration
- Degeneration
- Degeneration
- Atrophy
- Minimal
- Moderate
- Mild
- Minimal
- Minimal
- Minimal
- Moderate
- Moderate
- Minimal
- Minimal
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1814

TRT#: 7

SEX: Male

DAY ON TEST: 665

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1814

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1815

TRT#: 7

SEX: Male

DAY ON TEST: 510

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1815

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Rectum
- * Mammary Gland
- * Pituitary Gland
- * Seminal Vesicle
- * Spinal Cord, Thoracic
- * Trachea
- * Aorta
- * Epididymis
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Preputial Gland
- Skeletal Muscle
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone
- * Esophagus
- * Liver
- * Nose
- * Prostate
- * Skin
- * Stomach, Glandular
- * Bone Marrow
- * Harderian Gland
- * Lymph Node, Mesenteric
- * Pancreas
- * Salivary Glands
- * Spinal Cord, Cervical
- * Testis

MISSING

- * Parathyroid Gland
- * Thyroid Gland

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Ileum
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Intestine Large, Colon
- * Urinary Bladder
- * Intestine Small, Duodenum

OBSERVATIONS

- * Adrenal Cortex
- * Heart
- * Kidney
- * Lung
- * Lymph Node, Mandibular
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Spinal Cord, Lumbar
- * Spleen
- * Thymus
- Ventricl Rgt
- Alveolus
- White Pulp
- Hypertrophy
- Cardiomyopathy
- Cardiomyopathy
- Nephropathy
- Infiltration Cellular
- Proliferation
- Degeneration
- Degeneration
- Degeneration
- Atrophy
- Atrophy
- Hemorrhage
- Mild
- Mild
- Minimal
- Chronicprogr, Mild
- Histiocyte, Minimal
- Plasma Cell, Mild
- Mild
- Mild
- Minimal
- Mild
- Moderate
- Mild

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: TGLs 1,2 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1816

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1816

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Mammary Gland | * Parathyroid Gland |
| * Seminal Vesicle | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|--|---------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Moderate |
| | | Hypertrophy | Mild |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Adenoma | |
| [Adenoma TGLs = 4-6] | | | |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| [Nephropathy TGLs = 3-13] | | | |
| * Liver | | Hepatodiaphragmatic Nodule | |
| | | Mixed Cell Focus | |
| [Hepatodiaphragmatic Nodule TGLs = 5-12] | | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Moderate |
| | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| [Ectasia TGLs = 1-9] | | | |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Minimal |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | | Adenoma | |
| | Acinus | Hyperplasia | Marked |
| [Adenoma TGLs = 4-6] | | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1816

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1816

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLs = 4-6]

| | | | |
|------------------------------|---------------|------------------------------|--------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| * Prostate | | Inflammation | Chronic Active, Mild |
| [Inflammation TGLs = 2-16] | | | |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Minimal |

Animal Note: TGLs 6,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1817

TRT#: 7

SEX: Male

DAY ON TEST: 371

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1817

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Harderian Gland
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Liver
- * Lymph Node, Mandibular
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Nerve Trigeminal
- * Pancreas
- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- * Pituitary Gland
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- * Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Spinal Cord, Lumbar
- * Spinal Cord, Thoracic
- * Stomach, Forestomach
- * Stomach, Glandular
- * Testis
- * Thyroid Gland
- * Trachea
- * Trigeminal Ganglion
- * Urinary Bladder

OBSERVATIONS

- * Heart
 - Cardiomyopathy Minimal
 - Ventricle Rgt Cardiomyopathy Minimal
 - Nephropathy
- * Kidney
 - [Nephropathy TGLs = 1-13]
 - Nephropathy Chronicprogr, Mild
- * Lung
 - [Congestion TGLs = 2,3-10]
 - Congestion Mild
- * Nose
 - Olfactory Epi Accumulation, Hyaline Droplet Mild
- * Peripheral Nerve, Tibial
 - Degeneration Minimal
- * Preputial Gland
 - Inflammation Chronic Active, Mild
- * Spleen
 - White Pulp Atrophy Mild
 - Red Pulp Atrophy Mild
 - Pigment Mild
- * Thymus
 - Hemorrhage Hemorrhage Moderate
 - [Hemorrhage TGLs = 4-6]

PRIMARY CAUSE OF DEATH - UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1820

TRT#: 7

SEX: Male

DAY ON TEST: 567

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1820

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|--------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic | * Liver |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Mammary Gland | * Nerve Trigeminal |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Thyroid Gland | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- * Thymus

AUTO PRECLUDES DIAG.

- | | |
|----------------------------|-----------|
| * Intestine Small, Jejunum | * Trachea |
|----------------------------|-----------|

OBSERVATIONS

- | | | | |
|-----------------------------|----------------------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lung | | Congestion | Moderate |
| | [Congestion TGLs = 1-10] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1821

TRT#: 7

SEX: Male

DAY ON TEST: 488

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1821

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Epididymis
- * Esophagus
- * Harderian Gland
- * Kidney
- * Liver
- * Lymph Node, Mandibular
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Nerve Trigeminal
- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- * Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Spinal Cord, Thoracic
- * Spleen
- * Stomach, Forestomach
- * Testis
- * Thyroid Gland

MISSING

Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Pancreas
- * Stomach, Glandular
- * Trachea
- * Urinary Bladder

OBSERVATIONS

- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Heart

| | | | |
|--|---------------|----------------------|---------|
| | Ventricle Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| | Endocardium | Schwannoma Malignant | |
- * Lung

| | | | |
|--|---------------------------------------|-----------------------|----------------------|
| | Alveolus | Congestion | Moderate |
| | | Infiltration Cellular | Histiocyte, Moderate |
| | [Congestion TGLs = 1-10] | | |
| | [Infiltration Cellular TGLs = 2-10] | | |
- * Nose

| | | | |
|--|---------------|-------------------------------|----------------------|
| | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| | | Foreign Body | |
| | | Inflammation | Suppurative, Minimal |
- * Preputial Gland

| | | | |
|--|--|--------------|--------------------------|
| | | Inflammation | Chronic Active, Moderate |
|--|--|--------------|--------------------------|
- * Spinal Cord, Lumbar

| | | | |
|--|-------|--------------|---------|
| | Nerve | Degeneration | Minimal |
|--|-------|--------------|---------|

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1821

TRT#: 7

SEX: Male

DAY ON TEST: 488

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1821

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Moderate

PRIMARY CAUSE OF DEATH

- Heart Endocardium Schwannoma Malignant

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1822

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1822

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Epididymis | * Esophagus | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Mammary Gland | * Pancreas |
| * Prostate | * Salivary Glands | * Seminal Vesicle | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Testis | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

MISSING

- * Parathyroid Gland

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|-----------------------------------|----------------------|
| * Adrenal Cortex | | Accessory Adrenal Cortical Nodule | |
| | | Hyperplasia | Minimal |
| | | Hypertrophy | Minimal |
| * Brain | | Mineral | Minimal |
| * Eye | Cornea, Epithelium | Hyperplasia | Minimal |
| | Cornea | Inflammation | Acute, Minimal |
| | Cornea | Neovascularization | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Mild |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 3-13] | | |
| * Liver | | Mixed Cell Focus | |
| * Lung | | Congestion | Mild |
| | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Congestion TGLs = 5-10] | | |
| | [Infiltration Cellular TGLs = 4-10] | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Lymph Node, Mesenteric | | Hyperplasia | Lymphocyte, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1822

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1822

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|-------------------------------|----------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 6-4] | | | |
| * Preputial Gland | Duct | Dilation | Moderate |
| | Duct | Hyperplasia | Mild |
| [Dilation TGLs = 1-16] | | | |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1825

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1825

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Prostate
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Seminal Vesicle
- * Thyroid Gland
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Skin
- * Trachea

MISSING

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - [Degeneration TGLs = 6-7]
 - * Adrenal Medulla
 - [Pheochromocytoma Benign TGLs = 5-7]
 - * Epididymis
 - Note: One epididymis normal.
 - [Hypospermia TGLs = 4-16A]
 - * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
 - Atrium, Myocardium
 - Hypertrophy
 - Nephropathy
 - * Kidney
 - [Nephropathy TGLs = 7-13]
 - * Liver
 - * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 11-10]
 - Lymph Node
 - Mediastinal
 - [Erythrophagocytosis TGLs = 10-20]
 - * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Hyperplasia
- Degeneration Mild
- Hypertrophy Moderate
- Pheochromocytoma Benign
- Hypospermia Marked
- Cardiomyopathy Minimal
- Cardiomyopathy Mild
- Hypertrophy Mild
- Nephropathy Chronicprogr, Marked
- Mixed Cell Focus
- Infiltration Cellular Histiocyte, Minimal
- Erythrophagocytosis Mild
- Ectasia Moderate
- Hyperplasia Lymphocyte, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1825

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1825

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|---------------|-------------------------------|--------------------------|
| | | Proliferation | Plasma Cell, Minimal |
| [Ectasia TGLs = 1-20] | | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | | Adenoma | |
| [Adenoma TGLs = 8-6] | | | |
| * Parathyroid Gland | | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | Multiple |
| | Pars Intermed | Cyst | |
| * Preputial Gland | Duct | Dilation | Mild |
| [Dilation TGLs = 2-16] | | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Testis | Germ Cell | Degeneration | Marked |
| | Artery | Inflammation | Chronic Active, Moderate |
| Note: One testis normal. | | | |
| [Degeneration TGLs = 3-16A] | | | |
| * Thymus | | Cyst | |

Animal Note: TGL 9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56
 Test Type: CHRONIC
 Route: Whole Body Exposure
 Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA
 CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018
 Time Report Requested: 13:31:21
 First Dose M/F: 09/16/12 / 09/16/12
 Lab: IIT

ANIMAL ID: 1826

TRT#: 7

SEX: Male

DAY ON TEST: 289

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1826

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|-----------------------------|----------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic |
| * Liver | * Lung | * Lymph Node, Mandibular | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nerve Trigeminal | * Pancreas | * Parathyroid Gland |
| * Peripheral Nerve, Sciatic | * Peripheral Nerve, Tibial | * Pituitary Gland | * Preputial Gland |
| * Prostate | * Salivary Glands | * Seminal Vesicle | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Spinal Cord, Lumbar | * Spinal Cord, Thoracic |
| * Stomach, Forestomach | * Stomach, Glandular | * Testis | * Thymus |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

AUTO PRECLUDES DIAG.

| | | |
|--------------------------|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|--------------------------|----------------------------|

OBSERVATIONS

| | | | |
|---|--------------------------------|-------------------------------|----------------------|
| * Bone Marrow | | Hypercellularity | Moderate |
| * Harderian Gland | | Infiltration Cellular | Lymphocyte, Minimal |
| * Heart | Ventricl Rgt | Cardiomyopathy | Mild |
| | | Cardiomyopathy | Minimal |
| * Kidney | | Nephroblastoma | |
| | | Nephropathy | Chronicprogr, Mild |
| | [Nephroblastoma TGLs = 1-13] | | |
| Lymph Node | Mediastinal | Hemorrhage | Moderate |
| | [Hemorrhage TGLs = 4-20] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| | | Foreign Body | |
| | | Inflammation | Suppurative, Minimal |
| * Preputial GI | | | |
| Note: One of pair available for evaluation. | | | |
| * Spleen | | Extramedullary Hematopoiesis | Mild |

PRIMARY CAUSE OF DEATH - Kidney Nephroblastoma
 CONTRIBUTORY CAUSE OF DEATH - Heart Ventricl Rgt Cardiomyopathy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1826

TRT#: 7

SEX: Male

DAY ON TEST: 289

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1826

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGLs 2,3,5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1827

TRT#: 7

SEX: Male

DAY ON TEST: 592

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1827

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|------------------------------|----------------|
| * Pituitary Gland [Adenoma TGLs = 4-4] | Pars Distalis | Adenoma | Multiple |
| * Prostate | | Inflammation | Acute, Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Moderate |
| | | Hemorrhage | Moderate |
| [Hemorrhage TGLs = 1-6] | | | |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH - Heart Ventricle Rgt Cardiomyopathy

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1828

TRT#: 7

SEX: Male

DAY ON TEST: 475

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1828

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Colon
- * Nerve Trigeminal
- * Seminal Vesicle
- * Spinal Cord, Lumbar
- * Thyroid Gland
- * Aorta
- * Epididymis
- * Intestine Large, Rectum
- * Nose
- Skeletal Muscle
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Bone
- * Esophagus
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Skin
- * Stomach, Forestomach
- * Bone Marrow
- * Harderian Gland
- * Mammary Gland
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Testis

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Jejunum
- * Pancreas
- * Stomach, Glandular
- * Intestine Large, Cecum
- * Islets, Pancreatic
- * Prostate
- * Trachea
- * Intestine Small, Duodenum
- * Kidney
- * Salivary Glands
- * Urinary Bladder
- * Intestine Small, Ileum
- * Liver
- * Spleen

OBSERVATIONS

- * Adrenal Cortex
- * Heart
- * Lung
- [Congestion TGLs = 2-10]
- * Lymph Node, Mandibular
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Preputial Gland
- * Thymus
- Ventricl Rgt
- Duct
- Hyperplasia
- Cardiomyopathy
- Cardiomyopathy
- Congestion
- Proliferation
- Degeneration
- Degeneration
- Dilation
- Inflammation
- Atrophy
- Moderate
- Mild
- Moderate
- Mild
- Plasma Cell, Minimal
- Minimal
- Minimal
- Moderate
- Chronic Active, Mild
- Mild

PRIMARY CAUSE OF DEATH - Heart Ventricl Rgt Cardiomyopathy

Animal Note: TGLs 1,3 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1829

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1829

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Mammary Gland | * Parathyroid Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|-----------------------------|--|-------------------------------|------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| | | Pheochromocytoma Benign | |
| | [Pheochromocytoma Benign TGLs = 3,4-7] | | |
| * Heart | Ventricl Rgt | Cardiomyopathy | Mild |
| | | Cardiomyopathy | Minimal |
| | Endocardium | Schwannoma Malignant | |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 5-20] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Preputial Gland | Duct | Dilation | Marked |
| | [Dilation TGLs = 1,2-16] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1829

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1829

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|--------------|------------------|
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Pigment | Minimal |
| * Thymus | | Hyperplasia | Epithelial, Mild |
| * Thyroid Gland | C Cell | Adenoma | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1830

TRT#: 7

SEX: Male

DAY ON TEST: 650

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1830

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|------------|------------------------------|----------|
| * Spleen | White Pulp | Atrophy | Minimal |
| | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| [Atrophy TGLs = 3-12] | | | |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1831

TRT#: 7

SEX: Male

DAY ON TEST: 547

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1831

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Harderian Gland
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Skin
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Epididymis
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Cervical
- * Testis
- * Bone
- * Esophagus
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Seminal Vesicle
- * Spinal Cord, Thoracic
- * Thyroid Gland
- * Bone Marrow
- * Eye
- * Liver
- * Pancreas
- Skeletal Muscle
- * Stomach, Forestomach
- Trigeminal Ganglion

MISSING

- * Mammary Gland

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Intestine Large, Colon
- * Trachea
- * Intestine Small, Duodenum
- * Intestine Small, Ileum

OBSERVATIONS

- * Adrenal Cortex
 - * Heart
 - Ventricl Rgt
 - [Cardiomyopathy TGLs = 2-11]
 - * Kidney
 - * Lung
 - Alveolus
 - [Congestion TGLs = 3-10]
 - [Infiltration Cellular TGLs = 4-10]
 - * Nose
 - Olfactory Epi
 - * Peripheral Nerve, Sciatic
 - * Peripheral Nerve, Tibial
 - * Pituitary Gland
 - * Preputial Gland
 - Pars Distalis
- Hyperplasia
 - Cardiomyopathy
 - Cardiomyopathy
 - Nephropathy
 - Congestion
 - Infiltration Cellular
 - Accumulation, Hyaline Droplet
 - Inflammation
 - Degeneration
 - Degeneration
 - Cyst
 - Inflammation
- Minimal
 - Minimal
 - Mild
 - Chronicprogr, Minimal
 - Marked
 - Histiocyte, Minimal
 - Mild
 - Chronic Active, Minimal
 - Minimal
 - Minimal
 - Chronic Active, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1831

TRT#: 7

SEX: Male

DAY ON TEST: 547

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1831

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Pyogranuloma formation in one gland.

| | | | |
|-----------------------|---------------------------|--------------|----------|
| * Prostate | Epithelium | Hyperplasia | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Minimal |
| | [Atrophy TGLs = 5-12] | | |
| * Thymus | | Hemorrhage | Moderate |
| | [Hemorrhage TGLs = 1-6] | | |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1832

TRT#: 7

SEX: Male

DAY ON TEST: 594

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1832

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Pancreas
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Parathyroid Gland
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Thyroid Gland
- * Bone Marrow
- * Heart
- * Intestine Small, Duodenum
- * Mammary Gland
- * Skin
- * Trachea

MISSING

- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Thymus

OBSERVATIONS

- * Adrenal Cortex
 - Atrophy Moderate
 - Carcinoma
 - Pigment Minimal

Note: One of pair available for evaluation.
 [Atrophy TGLs = 6-7]
 [Carcinoma TGLs = 7-7]
- * Adren Medulla
 - Note: One of pair available for evaluation.
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Epididymis
 - Exfoliated Germ Cell Minimal
 - Hypospermia Marked
- * Eye
 - Retina
 - Dysplasia
 - Nephropathy Chronicprogr, Mild
- * Kidney
- * Liver
 - Hepatocyte
 - Vacuolation, Cytoplasmic Moderate
 - [Hepatocellular Carcinoma TGLs = 1-20]
- * Lung
 - Alveolus
 - Hepatocellular Carcinoma Metastatic (Liver)
 - Infiltration Cellular Histiocyte, Minimal
- * Nerve Trigeminal
 - Degeneration Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1832

TRT#: 7

SEX: Male

DAY ON TEST: 594

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1832

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|----------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Intermed | Cyst | |
| * Preputial Gland | Duct | Dilation | Mild |
| * Prostate | | Decreased Secretory Fluid | Mild |
| | | Inflammation | Chronic Active, Mild |
| * Seminal Vesicle | | Decreased Secretory Fluid | Marked |
| | [Decreased Secretory Fluid TGLs = 3-16] | | |
| Skeletal Muscle | | Degeneration | Mild |
| | [Degeneration TGLs = 8-11] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Moderate |
| | | Extramedullary Hematopoiesis | Mild |
| * Testis | Germ Cell | Degeneration | Marked |
| | [Degeneration TGLs = 2-16A] | | |

PRIMARY CAUSE OF DEATH - Liver Hepatocellular Carcinoma

Animal Note: TGLs 4,5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1833

TRT#: 7

SEX: Male

DAY ON TEST: 622

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1833

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|------------|--------------|----------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Minimal |
| | Red Pulp | Atrophy | Minimal |
| | | Pigment | Mild |
| * Thymus | | Hemorrhage | Moderate |

[Hemorrhage TGLs = 4-6]

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1834

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1834

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nerve Trigeminal | * Pancreas | * Pituitary Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular | * Testis |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

| | | | |
|-----------------------------|---------------------------------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Minimal |
| * Eye | Retina | Atrophy | Minimal |
| | Cornea, Epithelium | Hyperplasia | Mild |
| | Cornea | Inflammation | Acute, Minimal |
| | Cornea | Neovascularization | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Adenoma | |
| | | Hyperplasia | Mild |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 2-13] | | |
| * Liver | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 3-10] | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Parathyroid Gland | | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1834

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1834

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------|------------------------------|---------|
| * Preputial Gland | Duct | Dilation | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Cyst | |

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1835

TRT#: 7

SEX: Male

DAY ON TEST: 680

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1835

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|---------------------------|--------------------------|----------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Harderian Gland |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Ileum | * Islets, Pancreatic |
| * Liver | * Lymph Node, Mesenteric | * Mammary Gland | * Nerve Trigeminal |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular | * Testis |
| * Thyroid Gland | Trigeminal Ganglion | * Urinary Bladder | |

AUTO PRECLUDES DIAG.

- | | | | |
|-----------|--------------------------|-----------------------------|----------------------------|
| * Eye | * Intestine Large, Cecum | * Intestine Small, Duodenum | * Intestine Small, Jejunum |
| * Trachea | | | |

OBSERVATIONS

- | | | | |
|--|---------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Minimal |
| * Eye | | | |
| Note: One retina available for evaluation. | | | |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricle Rgt | Cardiomyopathy | Mild |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Lung | | Congestion | Moderate |
| [Congestion TGLs = 2-10] | | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1835

TRT#: 7

SEX: Male

DAY ON TEST: 680

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1835

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------|-------------------------|------------|----------|
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| | [Atrophy TGLs = 3-12] | | |
| * Thymus | | Atrophy | Moderate |
| | | Hemorrhage | Moderate |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1836

TRT#: 7

SEX: Male

DAY ON TEST: 433

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1836

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Esophagus
- * Harderian Gland
- * Intestine Large, Rectum
- * Liver
- * Lymph Node, Mandibular
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Nerve Trigeminal
- * Parathyroid Gland
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Prostate
- * Seminal Vesicle
- * Skeletal Muscle
- * Spinal Cord, Cervical
- * Spinal Cord, Thoracic
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea
- * Trigeminal Ganglion
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Kidney
- * Pancreas
- * Salivary Glands
- * Spleen

OBSERVATIONS

- * Adren Medulla
 - Note: One of pair available for evaluation.
- * Brain
 - Note: Olfactory bulbs present in Nose Level 3 (slide 19)
- * Epididymis
- * Heart
 - Ventricl Rgt
 - Exfoliated Germ Cell Minimal
 - Cardiomyopathy Minimal
 - Cardiomyopathy Mild
 - Congestion Minimal
- * Lung
 - [Congestion TGLs = 2-10]
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet Moderate
 - Degeneration Minimal
 - Inflammation Chronic Active, Minimal
 - Congestion Moderate
- * Peripheral Nerve, Sciatic
- * Preputial Gland
- * Skin
 - [Congestion TGLs = 3-20]
 - Hair Follicle
 - Degeneration Minimal
 - Degeneration Minimal
 - Atrophy Marked
- * Spinal Cord, Lumbar
- * Testis
- * Thymus

PRIMARY CAUSE OF DEATH - Heart Ventricl Rgt Cardiomyopathy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1836

TRT#: 7

SEX: Male

DAY ON TEST: 433

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1836

ORGAN AND ACCOUNTABLE SITE STATUS

CONTRIBUTORY CAUSE OF DEATH - Heart Cardiomyopathy

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1837

TRT#: 7

SEX: Male

DAY ON TEST: 621

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1837

ORGAN AND ACCOUNTABLE SITE STATUS

[Infiltration Cellular TGLs = 9,10-20]

| | | | |
|--------------------------|---------------|-------------------------------|--------------------------|
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Lymph Node, Mesenteric | | Infiltration Cellular | Polymorphnuclr, Minimal |
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | | Adenoma | |
| | Acinus | Atrophy | Minimal |
| | Acinus | Hyperplasia | Mild |
| | Artery | Inflammation | Chronic Active, Moderate |

[Adenoma TGLs = 8-20]

| | | | |
|-----------------------------|-----------|--------------|---------|
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| * Stomach, Glandular | | Mineral | Mild |
| * Testis | Germ Cell | Degeneration | Minimal |

[Degeneration TGLs = 6-16A]

| | | | |
|---------------------|--------|--------------|------------------|
| * Thymus | | Atrophy | Marked |
| | | Hyperplasia | Epithelial, Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

Animal Note: TGLs 5,7,11 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1839

TRT#: 7

SEX: Male

DAY ON TEST: 348

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1839

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Liver
- * Peripheral Nerve, Tibial
- Skeletal Muscle
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Aorta
- * Epididymis
- * Mammary Gland
- * Pituitary Gland
- * Skin
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Esophagus
- * Nerve Trigeminal
- * Prostate
- * Spinal Cord, Cervical
- * Testis
- * Bone Marrow
- * Harderian Gland
- * Parathyroid Gland
- * Seminal Vesicle
- * Spinal Cord, Lumbar
- * Trachea

AUTO PRECLUDES DIAG.

- * Adrenal Cortex
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Stomach, Glandular
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nose
- * Thyroid Gland

OBSERVATIONS

- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
 - Nephropathy
 - Congestion
 - Infiltration Cellular
 - Alveolus
 - [Congestion TGLs = 2 - 10]
 - [Infiltration Cellular TGLs = 1 - 10]
- * Kidney
- * Lung
- * Peripheral Nerve, Sciatic
- * Preputial Gland
 - Note: One of pair available for evaluation.
- * Spleen
 - White Pulp
 - Atrophy
 - Pigment
 - [Atrophy TGLs = 3 - 12]
- * Thymus
 - [Atrophy TGLs = 4 - 6]

PRIMARY CAUSE OF DEATH - Heart Ventricl Rgt Cardiomyopathy

CONTRIBUTORY CAUSE OF DEATH - Heart Cardiomyopathy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1839

TRT#: 7

SEX: Male

DAY ON TEST: 348

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1839

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL 5 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1840

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1840

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Seminal Vesicle
- * Stomach, Glandular
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Mammary Gland
- * Skin
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Prostate
- * Spinal Cord, Cervical
- Trigeminal Ganglion
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
[Lymphoma Malignant TGLs = 6,7-7]
Lymphoma Malignant
- * Adrenal Medulla
Hyperplasia Moderate
- * Eye
Retina Atrophy Minimal
- * Heart
Ventricl Rgt
Cardiomyopathy Moderate
Cardiomyopathy Minimal
[Cardiomyopathy TGLs = 12-20]
- * Islets, Pancreatic
Hyperplasia Minimal
- * Kidney
Lymphoma Malignant
Nephropathy Chronicprogr, Mild
[Nephropathy TGLs = 8-13]
- * Liver
Bile Duct
Cyst
Lymphoma Malignant
- * Lung
Alveolus
Infiltration Cellular Histiocyte, Minimal
Lymphoma Malignant
[Infiltration Cellular TGLs = 14-10]
[Lymphoma Malignant TGLs = 13-10]
- Lymph Node
Pancreatic
Mediastinal
Lymphoma Malignant
Lymphoma Malignant
[Lymphoma Malignant TGLs = 10-20]
[Lymphoma Malignant TGLs = 11-21]
- * Lymph Node, Mandibular
Lymphoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1840

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1840

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|--------------------------------|--------------------------------|----------|
| * Lymph Node, Mesenteric [Lymphoma Malignant TGLs = 9-15] | | Lymphoma Malignant | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | | Lymphoma Malignant | |
| * Parathyroid Gland | | Adenoma | |
| | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Intermed Pars Distalis | Cyst Hyperplasia | Minimal |
| * Preputial Gland [Dilation TGLs = 2-16] | Duct | Lymphoma Malignant Dilation | Minimal |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen [Lymphoma Malignant TGLs = 3-12] | | Lymphoma Malignant | |
| * Testis | Germ Cell | Degeneration | Minimal |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1843

TRT#: 7

SEX: Male

DAY ON TEST: 590

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1843

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Colon
- * Mammary Gland
- * Salivary Glands
- * Spinal Cord, Cervical
- * Testis
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Small, Duodenum
- * Pancreas
- * Seminal Vesicle
- * Spinal Cord, Thoracic
- * Thyroid Gland
- * Bone
- * Eye
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Skeletal Muscle
- * Stomach, Forestomach
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Lymph Node, Mesenteric
- * Prostate
- * Skin
- * Stomach, Glandular
- * Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Large, Rectum
- * Intestine Small, Ileum

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Compression
- * Brain
 - Cardiomyopathy
 - Cardiomyopathy
 - Hyperplasia
 - Nephropathy
 - Fibrosis
 - Hyperplasia
 - Mixed Cell Focus
 - Necrosis
 - Congestion
- * Heart
 - Ventricle Rgt
- * Islets, Pancreatic
- * Kidney
- * Liver
 - Bile Duct
 - Bile Duct
 - Hepatocyte
- * Lung
 - [Congestion TGLs = 1-10]
- * Lymph Node, Mandibular
- * Nerve Trigeminal
- * Nose
 - Olfactory Epi

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1843

TRT#: 7

SEX: Male

DAY ON TEST: 590

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1843

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|--------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 2-4] | | | |
| * Preputial Gland | | Inflammation | Chronic Active, Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Hemorrhage | Moderate |
| [Hemorrhage TGLs = 3-6] | | | |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1844

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1844

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Mammary Gland | * Pituitary Gland | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Testis | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- * Parathyroid Gland

OBSERVATIONS

- | | | | |
|-----------------------------|-----------------------------|-----------------------------------|----------------------|
| * Adrenal Cortex | | Accessory Adrenal Cortical Nodule | |
| | | Hyperplasia | Mild |
| | | Hypertrophy | Minimal |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Heart | Ventricle Rgt | Cardiomyopathy | Mild |
| | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| | [Nephropathy TGLs = 2-13] | | |
| * Liver | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | Acinus | Hyperplasia | Mild |
| | [Hyperplasia TGLs = 3-6] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1844

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1844

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------|------------|------------------------------|--------------------------------------|
| * Preputial Gland | Duct | Dilation Inflammation | Moderate Chronic Active, Moderate |
| [Dilation TGLs = 1-16] | | | |
| * Prostate | Epithelium | Hyperplasia | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Ectopic Parathyroid Gland | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1845

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1845

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Seminal Vesicle
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Harderian Gland
- * Intestine Small, Ileum
- * Mammary Gland
- * Skin
- * Trachea
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Salivary Glands
- * Spinal Cord, Cervical
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Epididymis
- * Heart
- * Intestine Large, Rectum
- * Kidney
- [Nephropathy TGLs = 5-13]
- * Liver
- * Lung
- * Lymph Node, Mandibular
- Mesentery
- * Nerve Trigeminal
- * Nose
- * Pancreas
- * Parathyroid Gland
- Hypertrophy
- Hypercellularity
- Exfoliated Germ Cell
- Hypospermia
- Inflammation
- Cardiomyopathy
- Cardiomyopathy
- Inflammation
- Nephropathy
- Mixed Cell Focus
- Infiltration Cellular
- Ectasia
- Hyperplasia
- Proliferation
- Inflammation
- Degeneration
- Accumulation, Hyaline Droplet
- Inflammation
- Hyperplasia
- Inflammation
- Hyperplasia
- Mild
- Minimal
- Minimal
- Mild
- Chronic Active, Mild
- Mild
- Minimal
- Chronic Active, Moderate
- Chronicprogr, Marked
- Histiocyte, Minimal
- Minimal
- Lymphocyte, Minimal
- Plasma Cell, Minimal
- Chronic Active, Moderate
- Mild
- Mild
- Suppurative, Minimal
- Mild
- Chronic Active, Mild
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1845

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1845

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLs = 6-8]

| | | | |
|-----------------------------|---------------|--------------|-------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Minimal |

[Dilation TGLs = 1,2-16]

| | | | |
|-------------------------|-----------|------------------------------|-------------------------|
| * Prostate | | Infiltration Cellular | Mononuclear CI, Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Testis | Germ Cell | Degeneration | Mild |
| | Artery | Inflammation | Chronic Active, Marked |
| * Thymus | | Atrophy | Mild |
| | Artery | Inflammation | Chronic Active, Mild |
| * Thyroid Gland | C Cell | Adenoma | |
| Tissue NOS | Fat | Schwannoma Malignant | |

Note: Located in tissue adjacent to ductus deferens.

[Schwannoma Malignant TGLs = 4-20]

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1847

TRT#: 7

SEX: Male

DAY ON TEST: 153

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1847

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|----------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Epididymis | * Esophagus | * Eye | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Liver | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Nerve Trigeminal | * Pancreas | * Parathyroid Gland |
| * Peripheral Nerve, Sciatic | * Peripheral Nerve, Tibial | * Prostate | * Salivary Glands |
| * Seminal Vesicle | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Lumbar | * Spinal Cord, Thoracic | * Stomach, Glandular | * Testis |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- * Mammary Gland

OBSERVATIONS

- | | | | |
|---|---------------|-------------------------------|-------------------------|
| * Bone Marrow | | Hypocellularity | Moderate |
| * Brain | | Schwannoma Malignant | Metastatic (Tissue Nos) |
| * Harderian Gland | | Schwannoma Malignant | Metastatic (Tissue Nos) |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricle Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lung | | Inflammation | Suppurative, Moderate |
| Note: Bacterial colonies present within inflammatory foci [Inflammation TGLs = 3-10] | | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| | | Schwannoma Malignant | Metastatic (Tissue Nos) |
| * Pituitary Gland | | Schwannoma Malignant | Metastatic (Tissue Nos) |
| * Preputial Gland | | Inflammation | Acute, Minimal |
| * Spleen | Red Pulp | Atrophy | Moderate |
| | | Pigment | Minimal |
| Note: White pulp | | | |
| * Stomach, Forestomach | | Edema | Mild |
| | | Ulcer | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1847

TRT#: 7

SEX: Male

DAY ON TEST: 153

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1847

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Moderate

[Atrophy TGLs = 2-6]

Tissue NOS

Schwannoma Malignant

Note: Malignant Schwannoma primary mass is intracranial based on gross observation.

Note: primary neoplastic site undetermined, but possible origin in intracranial tissue such as cranial nerve or cranial nerve ganglion cannot be ruled out.

[Schwannoma Malignant TGLs = 4-1,2]

PRIMARY CAUSE OF DEATH - Brain Schwannoma Malignant Tissue Nos

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1848

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1848

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Nose
- * Seminal Vesicle
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- Skeletal Muscle
- * Testis
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Mammary Gland
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Medulla [Pheochromocytoma Benign TGLs = 3,4-7] Pheochromocytoma Benign
- * Epididymis Inflammation Chronic, Minimal
- * Heart Cardiomyopathy Minimal
- Ventricl Rgt Cardiomyopathy Minimal
- * Islets, Pancreatic Carcinoma Minimal
- [Carcinoma TGLs = 7-6] Hyperplasia
- * Kidney Nephropathy Chronicprogr, Mild
- [Nephropathy TGLs = 5-13]
- * Liver Mixed Cell Focus
- [Mixed Cell Focus TGLs = 6-12]
- * Lung Alveolus Infiltration Cellular Histiocyte, Minimal
- * Lymph Node, Mandibular Erythrophagocytosis Minimal
- [Erythrophagocytosis TGLs = 1-9.1] Hyperplasia Lymphocyte, Minimal
- * Nerve Trigeminal Degeneration Moderate
- * Pancreas Adenoma
- Acinus Hyperplasia Marked
- [Adenoma TGLs = 7-6,6.1RC]
- [Hyperplasia TGLs = 7-6,14]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1848

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1848

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------|------------------------------|-------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| * Skin | Subcut Tiss | Fibroma | |
| | [Fibroma TGLs = 2-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1849

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1849

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Prostate
- * Skin
- * Urinary Bladder
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Salivary Glands
- * Stomach, Glandular
- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nose
- * Seminal Vesicle
- * Trachea
- * Brain
- * Intestine Large, Rectum
- * Lung
- * Pancreas
- Skeletal Muscle
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Vacuolation, Cytoplasmic
- * Adrenal Medulla
 - Bilateral
 - Pheochromocytoma Benign
- * Epididymis
 - Exfoliated Germ Cell
- * Eye
 - Cornea
 - Cornea, Epithelium
 - Cornea
 - Cornea
 - Fibrosis
 - Hyperplasia
 - Inflammation
 - Neovascularization
- * Harderian Gland
 - Hyperplasia
- * Heart
 - Ventricl Rgt
 - Atrium
 - Atrium
 - Cardiomyopathy
 - Cardiomyopathy
 - Schwannoma Malignant
 - Thrombus
- Note: Associated endocardium hyperplasia
 - [Schwannoma Malignant TGLs = 3,4-11]
 - [Thrombus TGLs = 5-11]
- * Islets, Pancreatic
 - Adenoma
 - Hyperplasia
- [Adenoma TGLs = 2-6]
- * Kidney
 - Nephropathy
- * Liver
 - Mixed Cell Focus
- * Lymph Node, Mandibular
 - Proliferation

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1849

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1849

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--------------------------|------------------------------|-------------------------|
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Parathyroid Gland | | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Intermed | Cyst | |
| | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| | [Dilation TGLs = 1-16] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Basal Cell, Moderate |
| * Testis | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1851

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1851

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- Skeletal Muscle
- * Stomach, Glandular
- Trigeminal Ganglion
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Prostate
- * Skin
- * Testis
- * Urinary Bladder
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Forestomach
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia Mild
 - Vacuolation, Cytoplasmic Mild
 - [Vacuolation, Cytoplasmic TGLs = 4-7]
- * Adrenal Medulla
 - Hyperplasia Minimal
- * Epididymis
 - Artery Inflammation Chronic Active, Moderate
- * Heart
 - Ventricl Rgt Cardiomyopathy Minimal
 - [Cardiomyopathy TGLs = 6-20]
- * Kidney
 - Renal Tubule Cyst
 - Nephropathy Chronicprogr, Marked
 - [Nephropathy TGLs = 7-13]
- * Liver
 - Mixed Cell Focus
- * Lung
 - Alveolus Infiltration Cellular Histiocyte, Mild
 - [Infiltration Cellular TGLs = 5-10,20]
- * Lymph Node, Mandibular
 - Hyperplasia Lymphocyte, Mild
 - Proliferation Plasma Cell, Mild
- * Nerve Trigeminal
 - Degeneration Mild
- * Nose
 - Olfactory Epi Accumulation, Hyaline Droplet Mild
 - Inflammation Suppurative, Minimal
- * Pancreas
 - Cyst
- * Peripheral Nerve, Sciatic
 - Degeneration Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1851

TRT#: 7

SEX: Male

DAY ON TEST: 734

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1851

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|------------------------------|------------------------------|----------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Marked |
| | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 1,2,3-16] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1852

TRT#: 7

SEX: Male

DAY ON TEST: 737

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1852

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------|------------------------------|---------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1853

TRT#: 7

SEX: Male

DAY ON TEST: 608

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1853

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Liver
- * Parathyroid Gland
- * Seminal Vesicle
- * Stomach, Glandular
- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Lymph Node, Mandibular
- * Pituitary Gland
- Skeletal Muscle
- * Testis
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Mammary Gland
- * Prostate
- * Skin
- * Bone Marrow
- * Harderian Gland
- * Islets, Pancreatic
- * Pancreas
- * Salivary Glands
- * Stomach, Forestomach

MISSING

Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Small, Duodenum
- * Urinary Bladder
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
- * Eye
- * Heart
- * Kidney
- * Lung
- [Congestion TGLs = 3-10]
- * Lymph Node, Mesenteric
- * Nerve Trigeminal
- * Nose
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Preputial Gland
- Cornea, Epithelium
- Cornea
- Cornea
- Ventricl Rgt
- Alveolus
- Olfactory Epi
- Duct
- Hypertrophy
- Hyperplasia
- Inflammation
- Neovascularization
- Cardiomyopathy
- Cardiomyopathy
- Nephropathy
- Congestion
- Infiltration Cellular
- Erythrophagocytosis
- Degeneration
- Accumulation, Hyaline Droplet
- Degeneration
- Degeneration
- Dilation
- Mild
- Minimal
- Acute, Minimal
- Minimal
- Minimal
- Mild
- Chronicprogr, Moderate
- Moderate
- Histiocyte, Minimal
- Mild
- Mild
- Mild
- Minimal
- Mild
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1853

TRT#: 7

SEX: Male

DAY ON TEST: 608

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1853

ORGAN AND ACCOUNTABLE SITE STATUS

Inflammation Chronic Active, Mild

[Inflammation TGLs = 1-16]

* Spinal Cord, Cervical

Degeneration

Minimal

* Spinal Cord, Lumbar

Degeneration

Minimal

Nerve

* Spinal Cord, Thoracic

Degeneration

Minimal

* Spleen

Degeneration

Minimal

* Thymus

Pigment

Mild

[Hemorrhage TGLs = 2-6]

Hemorrhage

Moderate

* Thyroid Gland

C Cell

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH - Heart Ventricl Rgt Cardiomyopathy

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1854

TRT#: 7

SEX: Male

DAY ON TEST: 594

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1854

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|----------------|-------------------------------|-------------------------|
| [Lymphoma Malignant TGLs = 3-9] | | | |
| * Lymph Node, Mesenteric | | Lymphoma Malignant | |
| [Lymphoma Malignant TGLs = 5-15] | | | |
| Mesentery | | Hemorrhage | Marked |
| [Hemorrhage TGLs = 2-20] | | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| | | Inflammation | Suppurative, Moderate |
| | | Lymphoma Malignant | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Preputial Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Prostate | | Decreased Secretory Fluid | Mild |
| * Salivary Glands | Parotid GI | Atrophy | Moderate |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| [Decreased Secretory Fluid TGLs = 10-16] | | | |
| * Spinal Cord, Cervical | | Lymphoma Malignant | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| | | Lymphoma Malignant | |
| * Spinal Cord, Thoracic | | Lymphoma Malignant | |
| * Spleen | | Lymphoma Malignant | |
| [Lymphoma Malignant TGLs = 1-12] | | | |
| * Stomach, Forestomach | | Lymphoma Malignant | |
| * Testis | Germ Cell | Degeneration | Mild |
| * Thymus | | Lymphoma Malignant | |
| * Thyroid Gland | Follicular Cel | Adenoma | |

PRIMARY CAUSE OF DEATH - Spleen Lymphoma Malignant
 CONTRIBUTORY CAUSE OF DEATH - Heart Ventricl Rgt Cardiomyopathy

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1855

TRT#: 7

SEX: Male

DAY ON TEST: 630

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1855

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|--------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nerve Trigeminal | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| Skeletal Muscle | * Spinal Cord, Cervical | * Stomach, Forestomach | * Testis |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

AUTO PRECLUDES DIAG.

- | | |
|---------------------------|----------------------|
| * Intestine Large, Rectum | * Stomach, Glandular |
|---------------------------|----------------------|

OBSERVATIONS

- | | | | |
|--|---------------|---|------------------------|
| * Adrenal Cortex | | Hyperplasia Hypertrophy | Minimal Mild |
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricle Rgt | Cardiomyopathy | Moderate |
| | | Hemorrhage | Mild |
| | Myocardium | Necrosis | Mild |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| * Lung | | Congestion | Moderate |
| | | Foreign Body | |
| | | Hemorrhage | Moderate |
| | | Inflammation | Suppurative, Marked |
| Note: Consistent with aspiration pneumonia with plant-based foreign material within airways. [Congestion TGLs = 2-10] | | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet Foreign Body | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1855

TRT#: 7

SEX: Male

DAY ON TEST: 630

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1855

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------|-------------------|-----------------------|
| * Peripheral Nerve, Sciatic | | Inflammation | Suppurative, Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | | Degeneration | Mild |
| * Skin | Subcut Tiss | Inflammation | Chronic Active, Mild |
| | | Inflammation | Suppurative, Moderate |
| | | Trichoepithelioma | |
| Note: Pyogranuloma. | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Adenoma | |

PRIMARY CAUSE OF DEATH - Lung Inflammation

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1856

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1856

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Seminal Vesicle
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Skin
- * Testis
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Cervical
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 - Mineral
 - Cardiomyopathy
 - Nephropathy
 - Cystic, Mild
 - Mild
 - Mild
 - Mild
 - Minimal
 - Minimal
 - Chronicprogr, Mild
- * Brain
- * Heart
- * Kidney
 - [Nephropathy TGLs = 4-13]
- * Liver
 - Bile Duct
 - Hyperplasia
 - Mixed Cell Focus
 - Alveolus
 - Infiltration Cellular
- * Lung
 - [Infiltration Cellular TGLs = 5-10]
- * Lymph Node, Mandibular
- * Nose
 - Olfactory Epi
 - Respirat Epith
 - Hyperplasia
 - Inflammation
- * Pancreas
 - Acinus
 - Atrophy
 - Degeneration
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration
- * Pituitary Gland
 - Pars Distalis
 - Hyperplasia
- * Preputial Gland
 - Duct
 - Dilation

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1856

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1856

ORGAN AND ACCOUNTABLE SITE STATUS

[Dilation TGLs = 1-16]

| | | | |
|-------------------------|------------|------------------------------|----------|
| * Prostate | Epithelium | Hyperplasia | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Ectopic Parathyroid Gland | |
| * Thyroid Gland | C Cell | Adenoma | |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGLs 2,3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1857

TRT#: 7

SEX: Male

DAY ON TEST: 720

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1857

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Small, Duodenum
- * Preputial Gland
- * Skin
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Ileum
- * Prostate
- * Testis
- * Epididymis
- * Intestine Large, Cecum
- * Mammary Gland
- * Salivary Glands
- * Thyroid Gland
- * Esophagus
- * Intestine Large, Colon
- * Parathyroid Gland
- * Seminal Vesicle
- Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Large, Rectum
- * Intestine Small, Jejunum
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Bone Marrow
- * Brain
- * Heart
- * Islets, Pancreatic
- * Kidney
- * Liver
- * Lung
- * Lymph Node
- * Lymph Node, Mandibular
- Ventricl Rgt
- Lymphoma Malignant
- Pheochromocytoma Benign
- Hypercellularity
- Lymphoma Malignant
- Cardiomyopathy
- Cardiomyopathy
- Lymphoma Malignant
- Hyperplasia
- Lymphoma Malignant
- Nephropathy
- Lymphoma Malignant
- Mixed Cell Focus
- [Lymphoma Malignant TGLs = 1,2-12]
- [Hemorrhage TGLs = 4-10]
- [Lymphoma Malignant TGLs = 4-10]
- Pancreatic
- [Lymphoma Malignant TGLs = 7-6]
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Proliferation
- Mild
- Moderate
- Moderate
- Mild
- Chronicprogr, Mild
- Marked
- Plasma Cell, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1857

TRT#: 7

SEX: Male

DAY ON TEST: 720

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1857

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------------|-------------------------------|----------|
| * Lymph Node, Mesenteric | | Lymphoma Malignant | |
| [Lymphoma Malignant | TGLs = 5-15] | | |
| Mesentery | | Lymphoma Malignant | |
| [Lymphoma Malignant | TGLs = 6-20] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | Acinus | Atrophy | Minimal |
| | Acinus | Hyperplasia | Moderate |
| | [Hyperplasia | Lymphoma Malignant | |
| | TGLs = 8-20] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | | Lymphoma Malignant | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| | | Degeneration | Minimal |
| | | Lymphoma Malignant | |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Lymphoma Malignant | |
| | [Lymphoma Malignant | | |
| | TGLs = 3-12] | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Minimal |
| * Stomach, Glandular | | Lymphoma Malignant | |
| * Thymus | | Atrophy | Moderate |

PRIMARY CAUSE OF DEATH - Spleen Lymphoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1858

TRT#: 7

SEX: Male

DAY ON TEST: 586

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1858

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Brain | * Epididymis | * Esophagus |
| * Eye | * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mandibular | * Mammary Gland | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Lumbar | * Stomach, Forestomach | * Stomach, Glandular | * Testis |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

| | | | |
|-----------------------------|----------------------------|-------------------------------|-------------------------|
| * Heart | | Cardiomyopathy | Mild |
| | Ventricle Rgt | Cardiomyopathy | Moderate |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | Hepatocyte | Vacuolation, Cytoplasmic | Minimal |
| * Lung | | Congestion | Moderate |
| | [Congestion TGLs = 1-10] | | |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Preputial Gland | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | White Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Moderate |
| | | Hemorrhage | Moderate |
| | | Histiocytic Sarcoma | |
| | [Hemorrhage TGLs = 2-6] | | |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1858

TRT#: 7

SEX: Male

DAY ON TEST: 586

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1858

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Thymus Histiocytic Sarcoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1860

TRT#: 7

SEX: Male

DAY ON TEST: 737

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1860

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Esophagus | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Mammary Gland | * Parathyroid Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | Skeletal Muscle | * Spinal Cord, Cervical |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Epididymis | | Exfoliated Germ Cell | Minimal |
| * Eye | Cornea, Epithelium | Hyperplasia | Minimal |
| | Cornea | Inflammation | Acute, Minimal |
| | Cornea | Neovascularization | Minimal |
| | [Hyperplasia TGLs = 1-5.1] | | |
| * Harderian Gland | | Atrophy | Minimal |
| | | Inflammation | Chronic, Minimal |
| * Heart | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| | Endocardium | Schwannoma Malignant | |
| * Kidney | | Nephropathy | Chronicprogr, Moderate |
| | [Nephropathy TGLs = 3-13] | | |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 4-10] | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Pancreas | Acinus | Hyperplasia | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1860

TRT#: 7

SEX: Male

DAY ON TEST: 737

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1860

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------------------------|------------------------------|-------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Mild |
| * Preputial Gland | Duct | Dilation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| * Skin | | Keratoacanthoma | |
| | [Keratoacanthoma TGLs = 2-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Interstit Cell | Hyperplasia | Mild |
| * Thymus | | Cyst | |
| | | Ectopic Parathyroid Gland | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1861

TRT#: 7

SEX: Male

DAY ON TEST: 708

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1861

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Skin
- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Lymph Node, Mesenteric
- * Prostate
- * Thyroid Gland
- * Bone
- * Esophagus
- * Intestine Small, Duodenum
- * Mammary Gland
- * Salivary Glands
- Trigeminal Ganglion
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Seminal Vesicle
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Large, Rectum
- * Stomach, Glandular
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
- * Eye
- * Heart
- [Dilation TGLs = 8-11]
- * Islets, Pancreatic
- [Carcinoma TGLs = 5-6]
- * Kidney
- [Nephropathy TGLs = 4-13]
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 2-10]
- Lymph Node
- [Erythrophagocytosis TGLs = 7-22]
- * Lymph Node, Mandibular
- * Nose
- * Pancreas
- Cornea, Epithelium
- Cornea
- Ventricl Rgt
- Atrium
- Bile Duct
- Alveolus
- Pancreatic
- Olfactory Epi
- Respirat Epith
- Hyperplasia
- Hyperplasia
- Inflammation
- Adenoma
- Hyperplasia
- Accumulation, Hyaline Droplet
- Hyperplasia
- Inflammation
- Adenoma
- Minimal
- Marked
- Acute, Marked
- Mild
- Mild
- Marked
- Carcinoma
- Nephropathy
- Hyperplasia
- Infiltration Cellular
- Erythrophagocytosis
- Hyperplasia
- Accumulation, Hyaline Droplet
- Hyperplasia
- Inflammation
- Adenoma
- Minimal
- Marked
- Chronicprogr, Marked
- Mild
- Histiocyte, Minimal
- Mild
- Lymphocyte, Mild
- Moderate
- Mild
- Suppurative, Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1861

TRT#: 7

SEX: Male

DAY ON TEST: 708

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1861

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-----------------------------|--------------|--------------------------|
| | Acinus | Hyperplasia | Marked |
| | Artery | Inflammation | Chronic Active, Mild |
| | [Adenoma TGLs = 1-20] | | |
| | [Hyperplasia TGLs = 6-21] | | |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| * Testis | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hemorrhage | Mild |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

CONTRIBUTORY CAUSE OF DEATH - Heart Ventricle Rgt Cardiomyopathy

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1862

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1862

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Harderian Gland
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Trachea
- * Aorta
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Bone Marrow
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Mammary Gland
- * Stomach, Forestomach
- * Esophagus
- * Intestine Small, Duodenum
- * Liver
- * Prostate
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Medulla
- * Bone
- * Brain
- * Epididymis
- * Eye
- * Heart
- * Intestine Large, Cecum
- * Kidney
- * Lung
- Lymph Node
- Pineal Gland
- Ventricl Rgt
- Artery
- Renal Tubule
- Alveolus
- Lymph Sinus, Mediastinal
- Pheochromocytoma Benign
- Fibrous Osteodystrophy
- Vacuolation, Cytoplasmic
- Exfoliated Germ Cell
- Hypospermia
- Degeneration
- Fibrosis
- Hyperplasia
- Inflammation
- Neovascularization
- Cardiomyopathy
- Cardiomyopathy
- Inflammation
- Cyst
- Nephropathy
- Infiltration Cellular
- Ectasia
- Minimal
- Minimal
- Mild
- Moderate
- Minimal
- Minimal
- Mild
- Acute, Minimal
- Mild
- Minimal
- Minimal
- Chronic Active, Mild
- Chronicprogr, Marked
- Histiocyte, Mild
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1862

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1862

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|------------------------|
| | Mediastinal | Erythrophagocytosis | Mild |
| | [Ectasia TGLs = 11-22] | | |
| | [Erythrophagocytosis TGLs = 12-22] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Preputial Gland | Duct | Dilation | Minimal |
| * Seminal Vesicle | | Decreased Secretory Fluid | Moderate |
| | | Hyperplasia | Atypical, Moderate |
| Skeletal Muscle | | Degeneration | Mild |
| * Skin | | Cyst Epithelial Inclusion | |
| | | Keratoacanthoma | |
| | Note: Epithelium of inclusion cyst is hyperplastic. | | |
| | [Cyst Epithelial Inclusion TGLs = 4-21] | | |
| | [Keratoacanthoma TGLs = 3-20] | | |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Pigment | Mild |
| * Testis | Germ Cell | Degeneration | Moderate |
| | Artery | Inflammation | Chronic Active, Marked |
| | [Degeneration TGLs = 5-16A] | | |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| * Thyroid Gland | C Cell | Adenoma | |
| | [Adenoma TGLs = 15-8] | | |
| Trigeminal Ganglion | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1862

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1862

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1863

TRT#: 7

SEX: Male

DAY ON TEST: 737

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1863

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Esophagus
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Stomach, Glandular
- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Thyroid Gland
- * Bone
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Trachea
- * Brain
- * Intestine Large, Rectum
- * Lung
- * Skin

OBSERVATIONS

- * Adrenal Medulla Hyperplasia Moderate
- * Bone Marrow Hypercellularity Mild
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Epididymis Exfoliated Germ Cell Minimal
- * Eye Artery Inflammation Chronic Active, Moderate
- * Eye Cornea, Epithelium Hyperplasia Mild
- * Eye Cornea Neovascularization Mild
- * Harderian Gland Degeneration Minimal
- * Heart Cardiomyopathy Minimal
- * Heart Ventricl Rgt Cardiomyopathy Minimal
- * Islets, Pancreatic Hyperplasia Minimal
- * Kidney Nephropathy Chronicprogr, Marked
- [Nephropathy TGLs = 4-13]
- * Liver Clear Cell Focus
- * Lymph Node, Mandibular Lymph Sinus Ectasia Minimal
- Mesentery Artery Hyperplasia Lymphocyte, Mild
- * Nerve Trigeminal Proliferation Plasma Cell, Moderate
- * Nose Inflammation Chronic Active, Marked
- * Pancreas Degeneration Mild
- Olfactory Epi Accumulation, Hyaline Droplet Mild
- Acinus Hyperplasia Moderate
- Artery Inflammation Chronic Active, Mild
- [Hyperplasia TGLs = 3-14]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1863

TRT#: 7

SEX: Male

DAY ON TEST: 737

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1863

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|------------------------------|---------------------------|--------------------------|
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Atrophy | Moderate |
| | Pars Distalis | Hyperplasia | Mild |
| | [Atrophy TGLs = 5-4] | | |
| * Preputial Gland | Duct | Dilation | Minimal |
| | | Inflammation | Chronic Active, Mild |
| * Prostate | | Inflammation | Chronic Active, Marked |
| | [Inflammation TGLs = 2-16] | | |
| * Seminal Vesicle | | Decreased Secretory Fluid | Mild |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| * Testis | Germ Cell | Degeneration | Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Urinary Bladder | Urothelium | Hyperplasia | Minimal |
| | Artery | Inflammation | Chronic Active, Marked |

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1864

TRT#: 7

SEX: Male

DAY ON TEST: 425

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1864

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Harderian Gland
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Peripheral Nerve, Sciatic
- * Prostate
- * Skin
- * Spleen
- * Thyroid Gland
- * Aorta
- * Epididymis
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Mammary Gland
- * Peripheral Nerve, Tibial
- * Salivary Glands
- * Spinal Cord, Cervical
- * Stomach, Forestomach
- * Trachea
- * Bone
- * Esophagus
- * Intestine Small, Duodenum
- * Liver
- * Nerve Trigeminal
- * Pituitary Gland
- * Seminal Vesicle
- * Spinal Cord, Lumbar
- * Stomach, Glandular
- * Trigeminal Ganglion
- * Bone Marrow
- * Eye
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Pancreas
- * Preputial Gland
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Testis
- * Urinary Bladder

MISSING

- * Intestine Large, Rectum
- * Parathyroid Gland

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum

OBSERVATIONS

- * Adrenal Cortex
 - * Heart
 - Ventricl Rgt
 - [Cardiomyopathy TGLs = 3-11]
 - * Kidney
 - * Lung
 - Alveolus
 - [Congestion TGLs = 2-10]
 - * Nose
 - Respirat Epith
 - * Thymus
- | | | |
|--|-----------------------|-----------------------|
| | Hyperplasia | Mild |
| | Cardiomyopathy | Minimal |
| | Cardiomyopathy | Mild |
| | Nephropathy | Chronicprogr, Minimal |
| | Congestion | Mild |
| | Infiltration Cellular | Histiocyte, Mild |
| | Foreign Body | |
| | Hyperplasia | Minimal |
| | Inflammation | Chronic Active, Mild |
| | Atrophy | Mild |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: TGL 1 = NST (No Section Taken)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1865

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1865

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- Trigeminal Ganglion
- * Bone
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Seminal Vesicle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia Minimal
 - Hypertrophy Minimal
- * Adrenal Medulla
 - Hyperplasia Marked
- * Bone Marrow
 - Hypercellularity Mild
- * Brain
 - Pineal Gland
 - Vacuolation, Cytoplasmic Mild
 - Note: Olfactory bulbs unavailable for evaluation.
- * Epididymis
 - Exfoliated Germ Cell Mild
 - Hypospermia Moderate
- * Eye
 - Cornea, Epithelium
 - Hyperplasia Minimal
 - Cornea
 - Neovascularization Mild
- * Heart
 - Cardiomyopathy Minimal
- * Kidney
 - Ventricl Rgt
 - Cardiomyopathy Mild
 - Renal Tubule
 - Cyst
 - Nephropathy Chronicprogr, Marked
- [Cyst TGLs = 9-20,13]
- [Nephropathy TGLs = 8-13]
- * Liver
 - Mixed Cell Focus
- * Lymph Node, Mandibular
 - Hyperplasia Lymphocyte, Minimal
 - Proliferation Plasma Cell, Mild
- * Nerve Trigeminal
 - Degeneration Moderate
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet Mild
- * Pancreas
 - Acinus
 - Hyperplasia Marked
- [Hyperplasia TGLs = 7-6]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1865

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1865

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|--------------------------------|-------------------------|
| * Parathyroid Gland | | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 11-4] | | | |
| * Preputial Gland | Duct | Dilation | Mild |
| [Dilation TGLs = 5-16] | | Inflammation | Chronic Active, Minimal |
| * Prostate | | Inflammation | Chronic Active, Minimal |
| * Skin | Epidermis | Cyst Epithelial Inclusion | |
| | Subcut Tiss | Hyperplasia | Mild |
| | | Malignant Fibrous Histiocytoma | |
| | | Squamous Cell Papilloma | |
| [Cyst Epithelial Inclusion TGLs = 1-20] | | | |
| [Hyperplasia TGLs = 1-20] | | | |
| [Malignant Fibrous Histiocytoma TGLs = 3-22] | | | |
| [Squamous Cell Papilloma TGLs = 2-21] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Testis | Germ Cell | Degeneration | Mild |
| [Degeneration TGLs = 12-16A] | | | |
| * Thymus | | Atrophy | Mild |
| [Atrophy TGLs = 10-6] | | | |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |

Animal Note: TGL 4 = NST (No Section Taken)

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 607

TRT#: 2

SEX: Female

DAY ON TEST: 550

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-607

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------------|------------------------------|---------------------|
| * Skin | Subcut Tiss | Fibroma | |
| [Fibroma TGLs = 8-21] | | | |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | Epithelium | Metaplasia | Squamous, Mild |

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Fibroma

CONTRIBUTORY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGLs 2,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 608

TRT#: 2

SEX: Female

DAY ON TEST: 662

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-608

ORGAN AND ACCOUNTABLE SITE STATUS

* Urinary Bladder

Inflammation

Acute, Mild

* Uterus

Endometrium

Hyperplasia

Cystic, Minimal

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 609

TRT#: 2

SEX: Female

DAY ON TEST: 739

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-609

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---------------|------------------------------|-------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 1-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 610

TRT#: 2

SEX: Female

DAY ON TEST: 738

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-610

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Thyroid Gland
- * Bone Marrow
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hypertrophy
 - Cystic, Minimal
- * Clitoral Gland
 - Duct
 - Dilation
 - Mild
- * Liver
 - Bile Duct
 - Cyst
 - Minimal
- * Lung
 - Alveolus
 - Infiltration Cellular TGLs = 1-10]
 - Infiltration Cellular TGLs = 1-10]
 - Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Lymphocyte, Minimal
 - Plasma Cell, Minimal
- * Mammary Gland
 - Duct
 - Dilation
 - Minimal
- * Nerve Trigeminal
 - Degeneration
 - Minimal
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Moderate
- * Ovary
 - Atrophy
 - Moderate
- * Peripheral Nerve, Sciatic
 - Degeneration
 - Minimal
- * Peripheral Nerve, Tibial
 - Degeneration
 - Minimal
- * Pituitary Gland
 - Pars Distalis
 - Adenoma
 - [Adenoma TGLs = 2-4]
- * Spinal Cord, Lumbar
 - Nerve
 - Degeneration
 - Mild
- * Spinal Cord, Thoracic
 - Degeneration
 - Mild
- * Spleen
 - Extramedullary Hematopoiesis
 - Mild
 - Pigment
 - Moderate
- * Thymus
 - Atrophy
 - Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 610

TRT#: 2

SEX: Female

DAY ON TEST: 738

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-610

ORGAN AND ACCOUNTABLE SITE STATUS

Hyperplasia

Epithelial, Minimal

Degeneration

Minimal

Metaplasia

Squamous, Minimal

Trigeminal Ganglion

* Uterus

Epithelium

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 611

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-611

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lung | * Lymph Node, Mesenteric | * Parathyroid Gland | * Peripheral Nerve, Sciatic |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- * Thymus

OBSERVATIONS

- | | | | |
|---|--|--|---|
| * Adrenal Cortex | | Degeneration Hypertrophy | Cystic, Minimal Mild |
| * Adren Medulla | | | |
| Note: One of pair available for evaluation. | | | |
| * Eye | Retina | Atrophy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | Bile Duct | Basophilic Focus Cyst Hepatocellular Adenoma | |
| | [Cyst TGLs = 2-12] | | |
| | [Hepatocellular Adenoma TGLs = 3-20] | | |
| * Lymph Node, Mandibular | | Hyperplasia Proliferation | Lymphocyte, Minimal Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Moderate |
| * Pancreas | | Ectopic Liver | |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 611

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-611

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------------|-------------|------------------------------|-----------------------------------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Stomach, Forestomach | | Sarcoma | |
| [Sarcoma TGLs = 4-21RT] | | | |
| * Stomach, Glandular | | Sarcoma | Metastatic (Stomach, Forestomach) |
| [Sarcoma TGLs = 4-21RT] | | | |
| Tissue NOS | Fat | Necrosis | Moderate |
| [Necrosis TGLs = 1-20] | | | |
| * Uterus | Endometrium | Dilation | Mild |
| | | Hyperplasia | Cystic, Minimal |
| | | Inflammation | Suppurative, Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 613

TRT#: 2

SEX: Female

DAY ON TEST: 493

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-613

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|-----------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Nerve Trigeminal | * Ovary | * Pancreas |
| * Parathyroid Gland | * Peripheral Nerve, Sciatic | * Pituitary Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Spinal Cord, Lumbar |
| * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| Trigeminal Ganglion | * Urinary Bladder | * Uterus | |

OBSERVATIONS

- | | | | |
|----------------------------|--|-------------------------------|-------------------------|
| * Bone Marrow | | Hypercellularity | Moderate |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Extramedullary Hematopoiesis | Minimal |
| | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | | Fibroadenoma | |
| | | Hyperplasia | Minimal |
| | [Fibroadenoma TGLs = 1-20] | | |
| * Nerve Sciatic | | | |
| | Note: Longitudinal section available for evaluation. | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| * Trachea | | Inflammation | Chronic Active, Minimal |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 614

TRT#: 2

SEX: Female

DAY ON TEST: 745

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-614

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|-----------------------------|-------------------------------|---------------------|
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Marked |
| * Ovary | | Atrophy | Mild |
| | Rete Ovarii | Hyperplasia | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 9-4] | | |
| * Spinal Cord, Cervical | | Degeneration | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Moderate |
| * Stomach, Forestomach | | Fibrosis | Mild |
| | [Fibrosis TGLs = 11-22RT] | | |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |

Animal Note: TGL 7 = NST (No Section Taken)

Animal Note: TGLs 4,6 = NCL (No Corresponding Lesion)

Animal Note: TGL 10 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 615

TRT#: 2

SEX: Female

DAY ON TEST: 660

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-615

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Clitoral Gland | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Liver |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Salivary Glands | Skeletal Muscle | * Spinal Cord, Cervical | * Spinal Cord, Thoracic |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|--|---------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Degeneration | Cystic, Mild |
| * Adren Medulla | | | |
| Note: One of pair available for evaluation. | | | |
| * Brain | | Compression | Mild |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lung | | Inflammation | Suppurative, Minimal |
| [Inflammation TGLs = 3-21] | | | |
| * Mammary Gland | Duct | Dilation | Minimal |
| [Galactocele TGLs = 1-9] | | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Marked |
| * Ovary | | Atrophy | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 4-4] | | | |
| * Skin | Epidermis | Hyperplasia | Mild |
| | | Inflammation | Chronic Active, Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 615

TRT#: 2

SEX: Female

DAY ON TEST: 660

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-615

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Multifocal serocellular crust formation.

[Inflammation TGLs = 2-20]

* Spinal Cord, Lumbar

* Spleen

* Uterus

Red Pulp

Epithelium

Degeneration

Atrophy

Extramedullary Hematopoiesis

Pigment

Inflammation

Metaplasia

Minimal

Mild

Minimal

Moderate

Acute, Minimal

Squamous, Mild

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 616

TRT#: 2

SEX: Female

DAY ON TEST: 268

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-616

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|-----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lung | * Lymph Node, Mandibular | * Mammary Gland | * Nerve Trigeminal |
| * Ovary | * Pancreas | * Parathyroid Gland | * Peripheral Nerve, Sciatic |
| * Peripheral Nerve, Tibial | * Pituitary Gland | * Salivary Glands | Skeletal Muscle |
| * Spinal Cord, Cervical | * Spinal Cord, Lumbar | * Spinal Cord, Thoracic | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | * Uterus | | |

INSUFFICIENT TISSUE

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|--------------------------|-------------------------|-------------------------------|-----------------------|
| * Bone Marrow | | Hypercellularity | Mild |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Extramedullary Hematopoiesis | Minimal |
| * Lymph Node, Mesenteric | | Infiltration Cellular | Histiocyte, Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Skin | Subcut Tiss | Sarcoma | |
| | [Sarcoma TGLs = 1-20] | | |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Lymphoma Malignant | |
| | | Pigment | Mild |

PRIMARY CAUSE OF DEATH

- Skin Subcut Tiss Sarcoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 618

TRT#: 2

SEX: Female

DAY ON TEST: 741

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-618

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Basal Cell, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |

Animal Note: TGL 3 = NCL (No Correlating Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 619

TRT#: 2

SEX: Female

DAY ON TEST: 508

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-619

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Colon
- * Liver
- * Nerve Trigeminal
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- * Pancreas
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Trachea
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Skeletal Muscle
- * Stomach, Forestomach
- * Trigeminal Ganglion
- * Brain
- * Harderian Gland
- * Islets, Pancreatic
- * Mammary Gland
- * Peripheral Nerve, Tibial
- * Skin
- * Stomach, Glandular
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Brain
 - Note: Olfactory bulbs not available.
- * Heart
- * Kidney
 - Bilateral, Renal Tubule
 - Renal Tubule
 - [Carcinoma TGLs = 1,2-13,20]
 - [Cyst TGLs = 5-13]
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 6-10]
- * Nose
 - Olfactory Epi
 - Note: Level 3 largely absent.
- * Ovary
- * Peripheral Nerve, Sciatic
- * Spinal Cord, Lumbar
- * Spleen
- Hypertrophy
- Hypercellularity
- Cardiomyopathy
- Carcinoma
- Cyst
- Nephropathy
- Infiltration Cellular
- Accumulation, Hyaline Droplet
- Atrophy
- Cyst
- Degeneration
- Degeneration
- Hemangiosarcoma
- Mild
- Moderate
- Minimal
- Chronicprogr, Minimal
- Histiocyte, Moderate
- Moderate
- Mild
- Minimal
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 619

TRT#: 2

SEX: Female

DAY ON TEST: 508

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-619

ORGAN AND ACCOUNTABLE SITE STATUS

[Hemangiosarcoma TGLs = 3,4-12]

* Thymus

Atrophy

Minimal

Cyst

Hyperplasia

Epithelial, Minimal

* Uterus

Cervix, Serosa

Fibrosis

Mild

Epithelium

Metaplasia

Squamous, Moderate

[Fibrosis TGLs = 7-20]

PRIMARY CAUSE OF DEATH

- Kidney Bilateral Renal Tubule Carcinoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 621

TRT#: 2

SEX: Female

DAY ON TEST: 744

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-621

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Kidney | * Liver |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Degeneration | Cystic, Mild |
| | | Hypertrophy | Mild |
| * Bone Marrow | | Hypercellularity | Moderate |
| * Clitoral Gland | | Inflammation | Chronic Active, Minimal |
| * Harderian Gland | | Atrophy | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 3-10] | | |
| * Mammary Gland | | Fibroadenoma | Multiple |
| | [Fibroadenoma TGLs = 1,5-20,21] | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Marked |
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 621

TRT#: 2

SEX: Female

DAY ON TEST: 744

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-621

ORGAN AND ACCOUNTABLE SITE STATUS

* Uterus

Epithelium

Metaplasia

Squamous, Mild

Polyp Stromal

Thrombus

Marked

[Polyp Stromal TGLs = 2-16]

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 622

TRT#: 2

SEX: Female

DAY ON TEST: 745

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-622

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea
- * Aorta
- * Clitoral Gland
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skeletal Muscle
- * Stomach, Glandular
- * Bone Marrow
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Skin
- * Thyroid Gland

MISSING

- * Nerve Trigeminal

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Mild
- * Kidney
 - Nephropathy
 - Minimal
- * Liver
 - Periductal
 - Cholangiofibrosis
 - Mixed Cell Focus
 - Chronicprogr, Minimal
 - Mild
- Note: Intestinal metaplasia of bile ducts within region of fibrosis.
 - [Mixed Cell Focus TGLs = 5,6-12,20]
- * Lung
 - Alveolus
 - Infiltration Cellular
 - Infiltration Cellular
 - TGLs = 7-10]
 - Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Proliferation
 - Plasma Cell, Minimal
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - Minimal
 - Multiple
- [Fibroadenoma TGLs = 1,2,3-20,21,22]
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Moderate
- * Ovary
 - Atrophy
 - Moderate
- * Peripheral Nerve, Sciatic
 - Degeneration
 - Moderate
- * Peripheral Nerve, Tibial
 - Degeneration
 - Moderate
- * Spinal Cord, Lumbar
 - Degeneration
 - Mild
- * Spinal Cord, Thoracic
 - Degeneration
 - Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 622

TRT#: 2

SEX: Female

DAY ON TEST: 745

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-622

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------|-----------------|------------------------------|---------------------|
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Dilation | Mild |
| | Endometrium | Hyperplasia | Cystic, Moderate |
| [Dilation | TGLs = 4-16.1] | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 623

TRT#: 2

SEX: Female

DAY ON TEST: 712

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-623

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Harderian Gland
- * Intestine Small, Jejunum
- * Salivary Glands
- * Thyroid Gland
- * Uterus
- * Bone
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Skeletal Muscle
- * Trachea
- * Esophagus
- * Intestine Large, Rectum
- * Pancreas
- * Spinal Cord, Cervical
- * Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Duodenum

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Brain
- * Clitoral Gland
- * Heart
- * Kidney
- * Liver
- * Lung
- * Mammary Gland
- * Nerve Trigeminal
- Duct
- Bile Duct
- [Lymphoma Malignant TGLs = 5-10]
- Lymph Node
- Note: Lymph node present within routine section of mammary gland.
- [Lymphoma Malignant TGLs = 9-9]
- * Lymph Node, Mandibular
- * Lymph Node, Mesenteric
- [Lymphoma Malignant TGLs = 3-15]
- [Fibroadenoma TGLs = 7-20]
- Lymphoma Malignant
- Hypercellularity
- Edema
- Lymphoma Malignant
- Dilation
- Cardiomyopathy
- Nephropathy
- Hyperplasia
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Fibroadenoma
- Hyperplasia
- Degeneration
- Mild
- Mild
- Moderate
- Minimal
- Chronicprogr, Minimal
- Mild
- Moderate
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 623

TRT#: 2

SEX: Female

DAY ON TEST: 712

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-623

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|--------------------------------|---------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Cyst | |
| | | Lymphoma Malignant | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| * Skin | Subcut Tiss | Malignant Fibrous Histiocytoma | |
| | [Malignant Fibrous Histiocytoma TGLs = 7,8-20,21] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 1-12] | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |

PRIMARY CAUSE OF DEATH - Spleen Lymphoma Malignant

Animal Note: TGLs 2,4,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 624

TRT#: 2

SEX: Female

DAY ON TEST: 565

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-624

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Esophagus
- * Eye
- * Harderian Gland
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Lung
- * Lymph Node, Mesenteric
- * Nerve Trigeminal
- * Pancreas
- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Salivary Glands
- * Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Spinal Cord, Thoracic
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea
- * Trigeminal Ganglion
- * Urinary Bladder
- * Uterus

OBSERVATIONS

- * Clitoral Gland Duct Dilation Mild
- * Kidney Nephropathy Chronicprogr, Mild
[Nephropathy TGLs = 6-13]
- * Liver Hepatocyte Vacuolation, Cytoplasmic Mild
- * Lymph Node, Mandibular Proliferation Plasma Cell, Mild
- * Mammary Gland Hyperplasia Minimal
- * Nose Olfactory Epi Accumulation, Hyaline Droplet Moderate
- * Ovary Cyst Mild
[Cyst TGLs = 1,2-16]
- * Spinal Cord, Lumbar Nerve Degeneration Minimal
- * Spleen Red Pulp Atrophy Mild
- [Atrophy TGLs = 5-12] Pigment Mild
- * Thymus Atrophy Marked
- Tongue Squamous Cell Carcinoma
[Squamous Cell Carcinoma TGLs = 3-20]

PRIMARY CAUSE OF DEATH - Tongue Squamous Cell Carcinoma

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 625

TRT#: 2

SEX: Female

DAY ON TEST: 622

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-625

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Bone Marrow |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Liver |
| * Lymph Node, Mesenteric | * Pancreas | * Salivary Glands | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | * Urinary Bladder | * Uterus |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|-----------------------------|---|-------------------------------|--------------------------|
| * Adrenal Medulla | | Hyperplasia | Mild |
| * Brain | | Compression | Mild |
| | [Compression TGLs = 7-1,2] | | |
| * Clitoral Gland | | Inflammation | Chronic Active, Moderate |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 5-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | | Adenocarcinoma | |
| | Duct | Dilation | Mild |
| | | Fibroadenoma | Multiple |
| | | Galactocele | |
| | [Fibroadenoma TGLs = 1,2,3,4-20,21,22,23] | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Moderate |
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 625

TRT#: 2

SEX: Female

DAY ON TEST: 622

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-625

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|------------------------------|------------------|
| * Pituitary Gland [Adenoma TGLs = 6-4] | Pars Distalis | Adenoma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |

PRIMARY CAUSE OF DEATH - Mammary Gland Galactocele

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 626

TRT#: 2

SEX: Female

DAY ON TEST: 578

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-626

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Kidney |
| * Lung | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Peripheral Nerve, Tibial | * Salivary Glands | Skeletal Muscle | * Skin |
| * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|-----------------------------|-----------------------------------|-------------------------------|--------------------------|
| * Adrenal Cortex | | Vacuolation, Cytoplasmic | Mild |
| * Bone Marrow | | Hypercellularity | Marked |
| * Clitoral Gland | | Inflammation | Chronic Active, Moderate |
| | [Inflammation TGLs = 1-16] | | |
| * Liver | | Eosinophilic Focus | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | | Adenoma | Multiple |
| | Duct | Dilation | Mild |
| | | Fibroadenoma | Multiple |
| | | Hyperplasia | Minimal |
| | [Adenoma TGLs = 4,5-22,23] | | |
| | [Fibroadenoma TGLs = 2,3-20,21] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 626

TRT#: 2

SEX: Female

DAY ON TEST: 578

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-626

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|------------|---------------|----------------|
| * Thymus | | Pigment | Minimal |
| | | Atrophy | Mild |
| | | Cyst | |
| * Thyroid GI | | | |
| Note: One of pair available for evaluation. | | | |
| * Uterus | Epithelium | Metaplasia | Squamous, Mild |
| | | Polyp Stromal | Multiple |
| [Polyp Stromal TGLs = 7-16] | | | |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGLs 6,8,9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 627

TRT#: 2

SEX: Female

DAY ON TEST: 531

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-627

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Liver | * Lymph Node, Mesenteric |
| * Pancreas | * Parathyroid Gland | * Peripheral Nerve, Sciatic | * Peripheral Nerve, Tibial |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Lumbar | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|--------------------------|------------------------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| * Bone Marrow | | Hypercellularity | Moderate |
| * Clitoral Gland | | Inflammation | Chronic Active, Minimal |
| * Harderian Gland | | Atrophy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 1-20] | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Uterus | Epithelium | Metaplasia | Squamous, Marked |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 628

TRT#: 2

SEX: Female

DAY ON TEST: 711

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-628

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Rectum
- * Ovary
- * Salivary Glands
- * Stomach, Forestomach
- * Uterus
- * Aorta
- * Eye
- * Intestine Small, Duodenum
- * Pancreas
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Intestine Large, Cecum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Skin
- * Thyroid Gland
- * Brain
- * Intestine Large, Colon
- * Nerve Trigeminal
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea

AUTO PRECLUDES DIAG.

- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hypertrophy
 - Cystic, Mild
- * Bone Marrow
 - Hypercellularity
 - Mild
- * Clitoral Gland
 - Duct
 - Dilation
 - Marked
 - Inflammation
 - Mild
- * Harderian Gland
 - Inflammation
 - Chronic Active, Mild
- * Heart
 - Cardiomyopathy
 - Mild
- * Islets, Pancreatic
 - Carcinoma TGLs = 9-6]
 - Carcinoma
- * Kidney
 - Nephropathy
 - Chronicprogr, Moderate
- * Liver
 - Nephropathy TGLs = 11-13]
 - Extramedullary Hematopoiesis
 - Minimal
 - Kupffer Cell
 - Hyperplasia
 - Minimal
 - Hepatocyte
 - Necrosis
 - Mild
 - [Necrosis TGLs = 10-12]
- * Lung
 - Alveolus
 - Infiltration Cellular
 - Histiocyte, Mild
 - [Infiltration Cellular TGLs = 6-10]
- Lymph Node
 - Inguinal, Lymph Sinus
 - Ectasia
 - Mild
 - Inguinal
 - Erythrophagocytosis
 - Mild
 - Inguinal
 - Proliferation
 - Plasma Cell, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 628

TRT#: 2

SEX: Female

DAY ON TEST: 711

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-628

ORGAN AND ACCOUNTABLE SITE STATUS

[Erythrophagocytosis TGLs = 12-20]

[Proliferation TGLs = 7-20]

* Lymph Node, Mandibular

Proliferation

Plasma Cell, Mild

* Mammary Gland

Fibroadenoma

Multiple

[Fibroadenoma TGLs = 1,2-21,22,23RT]

* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

Note: Approximately two-thirds of Level 3 available for evaluation.

* Peripheral Nerve, Sciatic

Degeneration

Mild

Note: Longitudinal section available for evaluation.

* Peripheral Nerve, Tibial

Degeneration

Mild

* Spinal Cord, Lumbar

Nerve

Degeneration

Mild

* Spinal Cord, Thoracic

Degeneration

Minimal

* Spleen

Extramedullary Hematopoiesis

Marked

[Extramedullary Hematopoiesis TGLs = 5-12]

* Thymus

Atrophy

Moderate

Trigeminal Ganglion

Degeneration

Minimal

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 8 = NCL (No Corresponding Lesion)

Animal Note: TGL 3 = NCL (No Corresponding Lesion) as autolysis precludes evaluation.

Animal Note: TGL 4 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 629

TRT#: 2

SEX: Female

DAY ON TEST: 738

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-629

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Aorta
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Glandular
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Skeletal Muscle
- * Thyroid Gland
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Trachea

MISSING

- * Clitoral Gland

OBSERVATIONS

- * Adrenal Cortex
 - [Degeneration TGLs = 5,7-7]
 - [Vacuolation, Cytoplasmic TGLs = 6-7]
 - * Bone Marrow
 - * Eye
 - Cornea, Epithelium
 - Cornea
 - * Heart
 - * Kidney
 - * Liver
 - * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 9-10]
 - * Lymph Node, Mandibular
 - * Mammary Gland
 - [Fibroadenoma TGLs = 2,3,4-20,21,22]
 - * Nose
 - Olfactory Epi
 - * Ovary
- | | | |
|--|-------------------------------|-----------------------|
| | Degeneration | Cystic, Moderate |
| | Hyperplasia | Moderate |
| | Vacuolation, Cytoplasmic | Mild |
| | Hypercellularity | Marked |
| | Hyperplasia | Minimal |
| | Inflammation | Acute, Minimal |
| | Cardiomyopathy | Minimal |
| | Nephropathy | Chronicprogr, Minimal |
| | Extramedullary Hematopoiesis | Minimal |
| | Infiltration Cellular | Histiocyte, Moderate |
| | Hyperplasia | Lymphocyte, Minimal |
| | Proliferation | Plasma Cell, Minimal |
| | Fibroadenoma | Multiple |
| | Hyperplasia | Mild |
| | Accumulation, Hyaline Droplet | Moderate |
| | Atrophy | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 629

TRT#: 2

SEX: Female

DAY ON TEST: 738

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-629

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|--------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 10-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Moderate |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGL 8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56
Test Type: CHRONIC
Route: Whole Body Exposure
Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Cell Phone Radiation: CDMA
CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018
Time Report Requested: 13:31:21
First Dose M/F: 09/16/12 / 09/16/12
Lab: IIT

ANIMAL ID: 630

TRT#: 2

SEX: Female

DAY ON TEST: 719

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-630

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Esophagus |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| Skeletal Muscle | * Skin | * Stomach, Glandular | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | * Uterus | |

MISSING

* Adrenal Medulla

OBSERVATIONS

| | | | |
|-----------------------------|---------------------------------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Brain | | Compression | Mild |
| | [Compression TGLs = 4-2] | | |
| * Clitoral Gland | Duct | Dilation | Moderate |
| * Eye | Retina | Atrophy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Infiltration Cellular | Mixed Cell, Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 3-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | | Adenocarcinoma | |
| | [Adenocarcinoma TGLs = 1-20] | Hyperplasia | Marked |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Minimal |
| | Rete Ovarii | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 630

TRT#: 2

SEX: Female

DAY ON TEST: 719

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-630

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLs = 2-4]

| | | | |
|-------------------------|------------------|--------------|----------|
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| | Duct, Parotid GI | Dilation | Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Minimal |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |

[Atrophy TGLs = 5-12]

| | | | |
|------------------------|--------|-------------|---------|
| * Stomach, Forestomach | | Edema | Mild |
| | | Erosion | Minimal |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 631

TRT#: 2

SEX: Female

DAY ON TEST: 464

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-631

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Liver |
| * Lymph Node, Mandibular | * Pancreas | * Parathyroid Gland | * Peripheral Nerve, Tibial |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Lumbar | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------------|-----------------------|
| * Bone Marrow | | Hypercellularity | Marked |
| * Brain | | Compression | Mild |
| * Clitoral Gland | Duct | Dilation | Moderate |
| * Kidney | Renal Tubule | Cyst | |
| | | Nephropathy | Chronicprogr, Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 2-10] | | |
| * Lymph Node, Mesenteric | | Infiltration Cellular | Histiocyte, Minimal |
| * Mammary Gland | Duct | Dilation | Moderate |
| | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 1-20] | Galactocele | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Respirat Epith | Accumulation, Hyaline Droplet | Mild |
| | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 3-4] | | |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 631

TRT#: 2

SEX: Female

DAY ON TEST: 464

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-631

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Minimal

* Uterus

Epithelium

Metaplasia

Squamous, Minimal

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 632

TRT#: 2

SEX: Female

DAY ON TEST: 738

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-522-632

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Skin
- * Trachea
- * Aorta
- * Harderian Gland
- * Intestine Small, Duodenum
- * Pancreas
- * Spinal Cord, Cervical
- Trigeminal Ganglion
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Clitoral Gland
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- Skeletal Muscle
- * Stomach, Glandular
- * Uterus

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hypertrophy Minimal
 - Vacuolation, Cytoplasmic Minimal
- * Bone Marrow
 - Hypercellularity Minimal
- * Brain
 - Compression Minimal
- * Eye
 - Retina
 - Atrophy Minimal
- * Heart
 - Cardiomyopathy Minimal
- * Islets, Pancreatic
 - Carcinoma TGLs = 4-6]
 - Carcinoma
- * Kidney
 - Nephropathy Chronicprogr, Minimal
- * Liver
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - Infiltration Cellular TGLs = 3-10]
 - Infiltration Cellular
- * Lymph Node, Mandibular
 - Hyperplasia Lymphocyte, Mild
 - Proliferation Plasma Cell, Mild
- * Mammary Gland
 - Fibroadenoma
 - Fibroadenoma TGLs = 1-20]
 - Fibroadenoma
 - Hyperplasia Marked
- * Nerve Trigeminal
 - Degeneration Moderate
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet Moderate
- * Ovary
 - Cyst
- * Parathyroid Gland
 - Fibrosis Minimal
- * Peripheral Nerve, Sciatic
 - Degeneration Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 632

TRT#: 2

SEX: Female

DAY ON TEST: 738

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-522-632

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|----------------------------|------------------------------|---------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Angiectasis | Moderate |
| | Pars Distalis | Hyperplasia | Mild |
| | [Angiectasis TGLs = 2-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | Follicle | Cyst | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 634

TRT#: 2

SEX: Female

DAY ON TEST: 547

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-634

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Clitoral Gland
- * Esophagus
- * Eye
- * Heart
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Islets, Pancreatic
- * Liver
- * Lymph Node, Mesenteric
- * Pancreas
- * Peripheral Nerve, Tibial
- * Salivary Glands
- * Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Spinal Cord, Thoracic
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea
- * Trigeminal Ganglion
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Bone Marrow
- Hypercellularity
- Mild
- * Brain
- Compression
- Moderate
- * Harderian Gland
- Infiltration Cellular
- Lymphocyte, Minimal
- * Kidney
- Nephropathy
- Chronicprogr, Minimal
- * Lung
- Congestion
- Moderate
- Alveolus
- Infiltration Cellular
- Histiocyte, Mild
- [Congestion TGLs = 5-10]
- [Infiltration Cellular TGLs = 1,2-20,21]
- * Lymph Node, Mandibular
- Hyperplasia
- Lymphocyte, Mild
- Proliferation
- Plasma Cell, Mild
- * Mammary Gland
- Duct
- Dilation
- Mild
- Hyperplasia
- Minimal
- * Nerve Trigeminal
- Degeneration
- Minimal
- * Nose
- Respirat Epith
- Accumulation, Hyaline Droplet
- Minimal
- Olfactory Epi
- Accumulation, Hyaline Droplet
- Moderate
- * Ovary
- Atrophy
- Mild
- * Parathyroid Gland
- Fibrosis
- Mild
- Hyperplasia
- Focal, Minimal
- Degeneration
- Minimal
- * Peripheral Nerve, Sciatic
- * Pituitary Gland
- Pars Distalis
- Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 634

TRT#: 2

SEX: Female

DAY ON TEST: 547

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-634

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLs = 6-4]

* Spinal Cord, Lumbar

Nerve

Degeneration

Minimal

* Spleen

Red Pulp

Atrophy

Moderate

Extramedullary Hematopoiesis

Minimal

Pigment

Moderate

* Thymus

Hemorrhage

Mild

* Uterus

Epithelium

Metaplasia

Squamous, Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 3,4,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 635

TRT#: 2

SEX: Female

DAY ON TEST: 737

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-635

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------------|---------------|------------------------------|-----------------------|
| * Ovary | | Atrophy | Moderate |
| | Rete Ovarii | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 10-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Dilation | Moderate |
| | | Inflammation | Suppurative, Moderate |
| | Epithelium | Metaplasia | Squamous, Marked |
| [Dilation TGLs = 7-16] | | | |
| [Inflammation TGLs = 7-16] | | | |

Animal Note: TGLs 5,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 636

TRT#: 2

SEX: Female

DAY ON TEST: 738

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-636

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Ovary | | Atrophy | Marked |
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | Multiple |
| [Adenoma TGLs = 8-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 637

TRT#: 2

SEX: Female

DAY ON TEST: 489

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-637

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Salivary Glands
- * Spinal Cord, Lumbar
- * Thyroid Gland
- * Adrenal Medulla
- * Clitoral Gland
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Parathyroid Gland
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Trachea
- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Peripheral Nerve, Tibial
- * Skin
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Urinary Bladder

OBSERVATIONS

- * Bone Marrow
- * Liver
- * Lung
- * Lymph Node, Mandibular
- * Mammary Gland
- [Dilation TGLs = 1-9]
- [Fibroadenoma TGLs = 3-20]
- * Nose
- * Ovary
- * Peripheral Nerve, Sciatic
- * Spleen
- * Thymus
- * Uterus
- Alveolus
- Duct
- Olfactory Epi
- Endometrium
- Epithelium
- Hypercellularity
- Mixed Cell Focus
- Infiltration Cellular
- Hyperplasia
- Proliferation
- Dilation
- Fibroadenoma
- Hyperplasia
- Accumulation, Hyaline Droplet
- Atrophy
- Degeneration
- Extramedullary Hematopoiesis
- Pigment
- Atrophy
- Cyst
- Hyperplasia
- Metaplasia
- Mild
- Moderate
- Histiocyte, Minimal
- Lymphocyte, Minimal
- Plasma Cell, Minimal
- Moderate
- Minimal
- Mild
- Moderate
- Minimal
- Minimal
- Mild
- Minimal
- Minimal
- Cystic, Minimal
- Squamous, Minimal

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 637

TRT#: 2

SEX: Female

DAY ON TEST: 489

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-637

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 639

TRT#: 2

SEX: Female

DAY ON TEST: 741

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-639

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Liver | * Lymph Node, Mesenteric | * Pancreas |
| * Parathyroid Gland | * Salivary Glands | Skeletal Muscle | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Trachea | * Urinary Bladder |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|---|---------------|-------------------------------|---|
| * Adrenal Cortex | | Degeneration Hyperplasia | Cystic, Minimal Moderate |
| [Degeneration TGLs = 4-7] | | | |
| * Adren Medulla | | | |
| Note: One of pair available for evaluation. | | | |
| * Clitoral Gland | Duct | Dilation Inflammation | Marked Chronic Active, Mild |
| [Dilation TGLs = 2-16] | | | |
| * Eye | Retina | Atrophy | Minimal |
| * Harderian Gland | | Inflammation | Chronic, Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| [Infiltration Cellular TGLs = 6-10] | | | |
| * Lymph Node, Mandibular | | Hyperplasia Proliferation | Lymphocyte, Minimal Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation Hyperplasia | Marked Minimal |
| [Dilation TGLs = 3-20] | | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 639

TRT#: 2

SEX: Female

DAY ON TEST: 741

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-639

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 641

TRT#: 2

SEX: Female

DAY ON TEST: 614

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-641

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Skin
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Liver
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Trachea
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lung
- Skeletal Muscle
- * Stomach, Forestomach
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Clitoral Gland
- * Heart
- * Kidney
- * Lymph Node, Mandibular
- * Mammary Gland
- [Fibroadenoma TGLs = 1,2-20,21]
- * Nerve Trigeminal
- * Nose
- * Ovary
- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- Duct
- Duct
- Olfactory Epi
- Respirat Epith
- Rete Ovarii
- Pars Distalis
- Hypertrophy
- Hypercellularity
- Dilation
- Cardiomyopathy
- Nephropathy
- Hyperplasia
- Proliferation
- Dilation
- Fibroadenoma
- Degeneration
- Accumulation, Hyaline Droplet
- Accumulation, Hyaline Droplet
- Atrophy
- Hyperplasia
- Fibrosis
- Degeneration
- Degeneration
- Adenoma
- Minimal
- Minimal
- Moderate
- Minimal
- Chronicprogr, Minimal
- Lymphocyte, Minimal
- Plasma Cell, Moderate
- Minimal
- Multiple
- Mild
- Mild
- Minimal
- Moderate
- Minimal
- Minimal
- Minimal

Note: Cyst is hemorrhagic.

[Adenoma TGLs = 4-4]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 641

TRT#: 2

SEX: Female

DAY ON TEST: 614

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-641

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------|-------------|------------------------------|---------------------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 642

TRT#: 2

SEX: Female

DAY ON TEST: 464

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-642

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Nerve Trigeminal
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Urinary Bladder
- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Ovary
- * Salivary Glands
- * Spinal Cord, Lumbar
- * Thyroid Gland
- * Uterus
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Skin
- * Stomach, Forestomach
- Trigeminal Ganglion

OBSERVATIONS

- * Bone Marrow
- * Clitoral Gland
- * Islets, Pancreatic
- * Kidney
- * Liver
- * Lung
- Lymph Node
- Note: Affecting lymph node in section of skin/mammary tissue.
- * Lymph Node, Mandibular
- * Mammary Gland
- [Fibroadenoma TGLs = 1-20]
- * Nose
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Spleen
- * Thymus
- Duct
- Alveolus
- Hypercellularity
- Dilation
- Hyperplasia
- Nephropathy
- Extramedullary Hematopoiesis
- Mixed Cell Focus
- Infiltration Cellular
- Proliferation
- Fibroadenoma
- Hyperplasia
- Accumulation, Hyaline Droplet
- Degeneration
- Degeneration
- Extramedullary Hematopoiesis
- Pigment
- Atrophy
- Hyperplasia
- Mild
- Marked
- Minimal
- Chronicprogr, Minimal
- Minimal
- Histiocyte, Minimal
- Plasma Cell, Mild
- Moderate
- Moderate
- Minimal
- Minimal
- Mild
- Minimal
- Minimal
- Epithelial, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 642

TRT#: 2

SEX: Female

DAY ON TEST: 464

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-642

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 643

TRT#: 2

SEX: Female

DAY ON TEST: 656

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-643

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Thyroid Gland
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Trachea
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Kidney
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia Mild
 - Hypertrophy Mild
 - Vacuolation, Cytoplasmic Mild
 - [Vacuolation, Cytoplasmic TGLs = 9-7]
- * Bone Marrow
 - Hypercellularity Marked
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Heart
 - Cardiomyopathy Minimal
- * Liver
 - Bile Duct
 - Cyst
 - Extramedullary Hematopoiesis Minimal
 - [Cyst TGLs = 5-21]
- * Lung
 - Alveolus
 - Infiltration Cellular Histiocyte, Minimal
 - [Infiltration Cellular TGLs = 7-22]
- * Lymph Node, Mandibular
 - Proliferation Plasma Cell, Mild
- * Mammary Gland
 - Duct
 - Dilation Moderate
 - Fibroadenoma Multiple
 - Galactocele
 - Hyperplasia Minimal
 - [Fibroadenoma TGLs = 2,3-20,21]
 - [Galactocele TGLs = 10-22]
- * Nerve Trigeminal
 - Degeneration Mild
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 643

TRT#: 2

SEX: Female

DAY ON TEST: 656

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-643

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|------------------------------|------------------|
| * Ovary | | Atrophy | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 8-4] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | [Extramedullary Hematopoiesis TGLs = 1-12] | | |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| Tissue NOS | Fat | Necrosis | Moderate |
| | [Necrosis TGLs = 6-20] | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |
| | [Hyperplasia TGLs = 11-16] | | |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 644

TRT#: 2

SEX: Female

DAY ON TEST: 741

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-644

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Urinary Bladder
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Stomach, Forestomach
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Stomach, Glandular
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Cystic, Mild
- * Bone Marrow
 - Hypertrophy
 - Minimal
 - Hypercellularity
 - Moderate
- * Clitoral Gland
 - Duct
 - Dilation
 - Moderate
- * Harderian Gland
 - Inflammation
 - Chronic, Minimal
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Bile Duct
 - Cyst
 - Eosinophilic Focus
- * Lung
 - [Cyst TGLs = 12-20]
 - Epithlm Alvlus
 - Hyperplasia
 - Mild
 - Alveolus
 - Infiltration Cellular TGLs = 10-10]
 - Histiocyte, Mild
- * Mammary Gland
 - Duct
 - Adenocarcinoma
 - Adenoma
 - Multiple
 - Dilation
 - Marked
 - Fibroadenoma
 - Multiple
 - Galactocele
 - Hyperplasia
 - Moderate
- [Adenocarcinoma TGLs = 4-23]
- [Adenoma TGLs = 1,2-20,21]
- [Fibroadenoma TGLs = 1,3,4,5,6-20,22,23,24,25]
- [Galactocele TGLs = 5-24]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 644

TRT#: 2

SEX: Female

DAY ON TEST: 741

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-644

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------------------------|-------------------------------|---------------------|
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Cyst | |
| | [Adenoma TGLs = 11-4] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Hemangiosarcoma | |
| | Endometrium | Hyperplasia | Cystic, Moderate |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | [Hemangiosarcoma TGLs = 9-21] | | |
| | [Hyperplasia TGLs = 8-16] | | |

Animal Note: TGL 7 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 645

TRT#: 2

SEX: Female

DAY ON TEST: 744

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-645

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|--------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic | * Liver |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Pancreas | * Salivary Glands |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | * Urinary Bladder | | |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|---|---------------|--|-------------------------|
| * Adrenal Cortex | | Hypertrophy Vacuolation, Cytoplasmic | Mild Minimal |
| * Adren Medulla | | | |
| Note: One of pair available for evaluation. | | | |
| * Clitoral Gland | | Inflammation | Chronic Active, Minimal |
| * Intestine Small, Jejunum | | Leiomyosarcoma | |
| [Leiomyosarcoma TGLs = 7-21.1] | | | |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| [Infiltration Cellular TGLs = 10-10] | | | |
| * Mammary Gland | | Fibroadenoma Galactocele Hyperplasia | Minimal |
| [Fibroadenoma TGLs = 3-21.1] | | | |
| [Galactocele TGLs = 1,2,4-9,20.1] | | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Moderate |
| | Rete Ovarii | Hyperplasia | Mild |
| * Parathyroid Gland | | Hyperplasia | Focal, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 645

TRT#: 2

SEX: Female

DAY ON TEST: 744

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-645

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 11-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Tissue NOS | Fat | Necrosis | Mild |
| [Necrosis TGLs = 6-21.1] | | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |
| [Hyperplasia TGLs = 5-16] | | | |

Animal Note: TGLs 8,9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 646

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-646

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | * Urinary Bladder | | |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|--|---------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Clitoral Gland | Duct | Dilation | Marked |
| | | Inflammation | Suppurative, Mild |
| | [Dilation TGLs = 4-16] | | |
| * Kidney | Renal Tubule | Adenoma | |
| * Liver | | Mixed Cell Focus | |
| | [Mixed Cell Focus TGLs = 6,7-20] | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 5-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| * Mammary Gland | Duct | Dilation | Mild |
| | | Fibroadenoma | Multiple |
| | | Galactocele | |
| | | Hyperplasia | Mild |
| | | Note: Galactocele is ruptured and predominantly filled with macrophages. | |
| | [Fibroadenoma TGLs = 1,2-20,21] | | |
| | [Galactocele TGLs = 3-22] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| Oral Mucosa | | Squamous Cell Carcinoma | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 646

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-646

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|-------------------|
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Moderate |
| * Thymus | | Cyst | |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | Epithelium | Metaplasia | Squamous, Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 647

TRT#: 2

SEX: Female

DAY ON TEST: 709

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-647

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Pancreas
- * Skin
- * Thyroid Gland
- * Brain
- * Heart
- * Islets, Pancreatic
- * Pituitary Gland
- * Spinal Cord, Thoracic
- * Trachea
- * Esophagus
- * Intestine Large, Colon
- * Lung
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
 - [Necrosis TGLs = 9-7]
 - * Adrenal Medulla
 - * Bone Marrow
 - * Clitoral Gland
 - [Dilation TGLs = 20-16]
 - * Kidney
 - [Dilation TGLs = 18-13]
 - [Nephropathy TGLs = 19-13]
 - * Liver
 - Lymph Node
- | | | | |
|--|------|--------------------------|-------------------------|
| | Duct | Lymphoma Malignant | |
| | | Necrosis | Marked |
| | | Vacuolation, Cytoplasmic | Mild |
| | | Necrosis | Moderate |
| | | Hypercellularity | Mild |
| | | Dilation | Marked |
| | | Inflammation | Chronic Active, Minimal |
| | | Dilation | Mild |
| | | Lymphoma Malignant | |
| | | Nephropathy | Chronicprogr, Mild |
| | | Necrosis | Minimal |
| | | Lymphoma Malignant | |
| | | Lymphoma Malignant | |
| | | Lymphoma Malignant | |
| | | Lymphoma Malignant | |

Note: Iliac, lumbar and renal lymph nodes cannot be distinguished in the section.

[Lymphoma Malignant TGLs = 10,12-6,22]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 647

TRT#: 2

SEX: Female

DAY ON TEST: 709

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-647

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|-------------------------|-------------------------------|----------|
| [Lymphoma Malignant | TGLs = 16-6] | | |
| [Lymphoma Malignant | TGLs = 22,23,24,25-13] | | |
| [Lymphoma Malignant | TGLs = 14-21] | | |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Moderate |
| | | Lymphoma Malignant | |
| [Lymphoma Malignant | TGLs = 17-15] | | |
| * Mammary Gland | Duct | Dilation | Moderate |
| | | Galactocele | |
| | | Hyperplasia | Minimal |
| [Galactocele | TGLs = 3,5,6-9,20,21] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Mild |
| Note: One of pair available for evaluation. | | | |
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Thymus | | Atrophy | Mild |
| | | Lymphoma Malignant | |
| Tissue NOS | Abdominal, Fat | Lymphoma Malignant | |
| [Lymphoma Malignant | TGLs = 21-22] | | |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Lymphoma Malignant | |
| [Lymphoma Malignant | TGLs = 7,8-16] | | |

PRIMARY CAUSE OF DEATH - Uterus Lymphoma Malignant

Animal Note: TGLs 4,11,13 = NCL (No Corresponding Lesion)

Animal Note: TGLs 1,2 = NST (No Section Taken)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 648

TRT#: 2

SEX: Female

DAY ON TEST: 641

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-648

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Intestine Large, Rectum
- * Parathyroid Gland
- * Stomach, Glandular
- * Aorta
- * Harderian Gland
- * Intestine Small, Duodenum
- * Salivary Glands
- * Trachea
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Skin
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Spinal Cord, Thoracic
- * Uterus

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
Lymphoma Malignant
Vacuolation, Cytoplasmic
Mild
- * Bone Marrow
Hypercellularity
Marked
- * Brain
Lymphoma Malignant
- [Lymphoma Malignant TGLs = 7-2]
- * Clitoral Gland
Duct
Dilation
Mild
- * Heart
Lymphoma Malignant
- * Kidney
Nephropathy
Chronicprogr, Mild
- * Liver
Bile Duct
Cyst
Hyperplasia
Mild
Lymphoma Malignant
- [Cyst TGLs = 4-12]
- [Lymphoma Malignant TGLs = 3,9-12]
- * Lung
Alveolus
Infiltration Cellular
Histiocyte, Mild
Lymphoma Malignant
- [Infiltration Cellular TGLs = 1-10]
- * Lymph Node, Mandibular
Proliferation
Plasma Cell, Moderate
- * Lymph Node, Mesenteric
Lymphoma Malignant
- * Mammary Gland
Hyperplasia
Minimal
- Mesentery
Lymphoma Malignant
TGLs = 8-12]
- * Nerve Trigeminal
Degeneration
Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 648

TRT#: 2

SEX: Female

DAY ON TEST: 641

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-648

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------------------|---------------|-------------------------------|-------------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Lymphoma Malignant | |
| * Pancreas | | Lymphoma Malignant | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Lymphoma Malignant | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Lymphoma Malignant | |
| [Lymphoma Malignant TGLs = 2,8-12] | | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| | | Inflammation | Chronic Active, Minimal |
| | | Lymphoma Malignant | |
| [Inflammation TGLs = 10-14] | | | |
| * Thymus | | Atrophy | Moderate |
| * Thyroid Gland | C Cell | Adenoma | |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Spleen Lymphoma Malignant

Animal Note: Malignant lymphoma is leukemic.
TGLs 5,6 = NCL (No Corresponding Lesion).

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 649

TRT#: 2

SEX: Female

DAY ON TEST: 741

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-649

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Trachea
- * Clitoral Gland
- * Intestine Large, Rectum
- * Lung
- * Parathyroid Gland
- * Spinal Cord, Cervical
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hypertrophy Minimal
 - Vacuolation, Cytoplasmic Minimal
 - [Vacuolation, Cytoplasmic TGLs = 5-7]
- * Bone Marrow
 - Hypercellularity Mild
- * Brain
 - Compression Mild
- * Eye
 - Retina Atrophy Minimal
- * Harderian Gland
 - Atrophy Minimal
- * Heart
 - Cardiomyopathy Minimal
- * Islets, Pancreatic
 - Hyperplasia Minimal
- * Kidney
 - Nephropathy Chronicprogr, Minimal
- * Liver
 - Basophilic Focus
- * Mammary Gland
 - Duct Dilation Moderate
 - Galactocele
 - [Galactocele TGLs = 1-9]
- * Nerve Trigeminal
 - Degeneration Moderate
- * Nose
 - Olfactory Epi Accumulation, Hyaline Droplet Moderate
- * Ovary
 - Atrophy Mild
- * Peripheral Nerve, Sciatic
 - Degeneration Mild
- * Peripheral Nerve, Tibial
 - Degeneration Minimal
- * Pituitary Gland
 - Pars Distalis Adenoma
 - [Adenoma TGLs = 8-4]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 649

TRT#: 2

SEX: Female

DAY ON TEST: 741

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-649

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|------------|------------------------------|---------------------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Hyperplasia | Stromal, Marked |
| | | Pigment | Mild |
| [Hyperplasia TGLs = 2-12] | | | |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | Epithelium | Metaplasia | Squamous, Moderate |

Animal Note: TGLs 3,4,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 651

TRT#: 2

SEX: Female

DAY ON TEST: 741

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-651

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Pancreas
- * Skin
- * Trachea
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Adenoma
 - Degeneration
 - Congestion
- * Brain
 - [Congestion TGLs = 6-2]
 - Atrophy
 - Inflammation
- * Harderian Gland
 - Cardiomyopathy
 - Hyperplasia
- * Heart
 - Nephropathy
 - Angiectasis
- * Islets, Pancreatic
 - Angiectasis TGLs = 8-20]
- * Kidney
 - Infiltration Cellular TGLs = 5-10]
- * Liver
 - Alveolus
 - Infiltration Cellular
- * Lung
 - [Angiectasis TGLs = 8-20]
 - [Infiltration Cellular TGLs = 5-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
- * Nerve Trigeminal
 - [Dilation TGLs = 1-9]
 - [Fibroadenoma TGLs = 2-20]
- * Nose
 - Olfactory Epi
 - Degeneration
 - Accumulation, Hyaline Droplet
- * Ovary
 - Atrophy
- * Peripheral Nerve, Sciatic
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 651

TRT#: 2

SEX: Female

DAY ON TEST: 741

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-651

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|------------------------|------------------------------|--------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Cyst | |
| | [Adenoma TGLs = 7-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Marked |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |

Animal Note: TGLs 3,4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 652

TRT#: 2

SEX: Female

DAY ON TEST: 550

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-652

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Lumbar
- * Thyroid Gland
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Nerve Trigeminal
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Harderian Gland
- * Islets, Pancreatic
- * Kidney
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 2-10]
- * Lymph Node, Mandibular
- * Mammary Gland
- [Fibroadenoma TGLs = 1-20]
- * Nose
- * Ovary
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Spleen
- Alveolus
- Duct
- Olfactory Epi
- Respirat Epith
- Pars Distalis
- Hypertrophy
- Hypercellularity
- Atrophy
- Inflammation
- Hyperplasia
- Nephropathy
- Mixed Cell Focus
- Infiltration Cellular
- Proliferation
- Dilation
- Fibroadenoma
- Hyperplasia
- Accumulation, Hyaline Droplet
- Accumulation, Hyaline Droplet
- Atrophy
- Degeneration
- Degeneration
- Hyperplasia
- Extramedullary Hematopoiesis
- Mild
- Moderate
- Minimal
- Granulomatous, Minimal
- Minimal
- Chronicprogr, Minimal
- Histiocyte, Mild
- Plasma Cell, Minimal
- Mild
- Minimal
- Moderate
- Minimal
- Moderate
- Minimal
- Minimal
- Minimal
- Minimal
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 652

TRT#: 2

SEX: Female

DAY ON TEST: 550

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-652

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------|------------|-------------|---------------------|
| * Thymus | | Pigment | Mild |
| | | Atrophy | Minimal |
| | | Cyst | |
| * Uterus | Epithelium | Hyperplasia | Epithelial, Minimal |
| | | Metaplasia | Squamous, Marked |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 653

TRT#: 2

SEX: Female

DAY ON TEST: 690

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-653

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Glandular
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- Skeletal Muscle
- * Thyroid Gland
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skin
- * Trachea
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Stomach, Forestomach

MISSING

- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Eye

OBSERVATIONS

- | | |
|---|--|
| <ul style="list-style-type: none"> * Adrenal Cortex * Bone Marrow * Heart * Kidney * Liver * Lung | <ul style="list-style-type: none"> Serosa Alveolus Mediastinal Iliac Iliac Mediastinal |
|---|--|

- Degeneration
- Hypercellularity
- Cardiomyopathy
- Inflammation
- Nephropathy
- Inflammation
- Infiltration Cellular

- Congestion
- Inflammation
- Proliferation
- Proliferation

- Cystic, Mild
- Marked
- Minimal
- Acute, Minimal
- Chronicprogr, Mild
- Chronic Active, Mild
- Histiocyte, Moderate

- Mild
- Acute, Mild
- Plasma Cell, Marked
- Plasma Cell, Moderate

Note: Bacterial colonies associated with regions of acute inflammation.

- [Congestion TGLs = 13-21]
- [Inflammation TGLs = 4-20]
- [Proliferation TGLs = 3-20]
- [Proliferation TGLs = 12-21]

- * Lymph Node, Mandibular
- Hyperplasia
- Lymphocyte, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 653

TRT#: 2

SEX: Female

DAY ON TEST: 690

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-653

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|--|---|
| * Mammary Gland | Duct | Proliferation Dilation Fibroadenoma Hyperplasia | Plasma Cell, Mild Minimal Multiple Mild |
| | [Fibroadenoma TGLs = 8,9,10-20,22,23] | | |
| Mesentery | | Inflammation | Chronic Active, Marked |
| | [Inflammation TGLs = 7,14-21] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |
| | Note: One of pair available for evaluation. | | |
| * Pancreas | | Inflammation | Chronic Active, Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration Degeneration | Mild Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy Extramedullary Hematopoiesis Pigment | Minimal Mild Mild |
| * Thymus | | Atrophy Cyst Ectopic Parathyroid Gland | Moderate |
| Trigeminal Ganglion | | Degeneration | Mild |
| * Uterus | | Fibrosis Inflammation Metaplasia | Moderate Suppurative, Marked Squamous, Marked |
| | Epithelium | | |
| | [Inflammation TGLs = 1-16] | | |

PRIMARY CAUSE OF DEATH - Uterus Inflammation

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 653

TRT#: 2

SEX: Female

DAY ON TEST: 690

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-653

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL 2 = NST (No Section Taken)

Animal Note: TGLs 6,11 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 654

TRT#: 2

SEX: Female

DAY ON TEST: 745

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-654

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|------------------------|------------------------------|---------------------|
| * Ovary | | Atrophy | Marked |
| | Rete Ovarii | Hyperplasia | Minimal |
| * Pancreas | Acinus | Atrophy | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| | | Infiltration Cellular | Mixed Cell, Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 9-4] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | Epithelium | Metaplasia | Squamous, Mild |

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 655

TRT#: 2

SEX: Female

DAY ON TEST: 741

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-655

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|-----------------------------|--|-------------------------------|-----------------------|
| * Adrenal Cortex | | Degeneration | Cystic, Minimal |
| | | Hyperplasia | Mild |
| | | Hypertrophy | Minimal |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Brain | | Compression | Minimal |
| * Clitoral Gland | Duct | Dilation | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Hepatocellular Adenoma | |
| | [Hepatocellular Adenoma TGLs = 6-20] | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 4-10] | | |
| * Mammary Gland | Duct | Dilation | Mild |
| | | Fibroadenoma | Multiple |
| | | Galactocele | |
| | | Hyperplasia | Minimal |
| | [Fibroadenoma TGLs = 1,3-20,22] | | |
| | [Galactocele TGLs = 2-21] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Moderate |
| | Rete Ovarii | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 655

TRT#: 2

SEX: Female

DAY ON TEST: 741

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-655

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---------------|------------------------------|-------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Cyst | |
| [Adenoma TGLs = 5-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| Trigeminal Ganglion | | Degeneration | Mild |
| * Uterus | Epithelium | Metaplasia | Squamous, Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 656

TRT#: 2

SEX: Female

DAY ON TEST: 738

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-656

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- * Aorta
- * Eye
- * Intestine Small, Duodenum
- * Pancreas
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Skin
- * Trachea
- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hypertrophy
 - Cystic, Moderate
 - Mild
- [Degeneration TGLs = 6-7]
- * Adren Medulla
 - Note: One of pair available for evaluation.
- * Brain
 - Pineal Gland
 - Pineal Gland
 - Mineral
 - Vacuolation, Cytoplasmic
 - Minimal
 - Minimal
- * Clitoral Gland
 - Inflammation
 - Chronic Active, Minimal
- * Harderian Gland
 - Inflammation
 - Granulomatous, Minimal
- * Heart
 - Cardiomyopathy
 - Minimal
- * Islets, Pancreatic
 - Hyperplasia
 - Marked
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Basophilic Focus
 - Mixed Cell Focus
 - Infiltration Cellular
 - Histiocyte, Mild
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 10-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Lymphocyte, Minimal
 - Plasma Cell, Mild
- * Mammary Gland
 - Duct
 - Adenoma
 - Dilation
 - Fibroadenoma
 - Hyperplasia
 - Minimal
 - Multiple
 - Minimal
- [Adenoma TGLs = 2-20]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 656

TRT#: 2

SEX: Female

DAY ON TEST: 738

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-656

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------------|--------------------------|-------------------------------|---------------------|
| [Fibroadenoma TGLs = 3,4-21,22] | | | |
| Mesentery | | Necrosis | Minimal |
| [Necrosis TGLs = 5-23] | | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Moderate |
| | | Cyst | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | Follicular Cel C Cell | Carcinoma | |
| | | Hyperplasia | Marked |
| [Carcinoma TGLs = 8-8] | | | |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Dilation | Minimal |
| | Endometrium | Hyperplasia | Cystic, Minimal |

Animal Note: TGLs 1,7,9,11 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 657

TRT#: 2

SEX: Female

DAY ON TEST: 531

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-657

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Cyst | |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Intermed | Degeneration | Minimal |
| | Pars Intermed | Cyst | |
| * Spinal Cord, Lumbar | Nerve | Hyperplasia | Mild |
| | | Degeneration | Mild |
| * Spleen | | Degeneration | Minimal |
| | | Extramedullary Hematopoiesis | Marked |
| * Thymus | | Pigment | Minimal |
| | | Atrophy | Minimal |
| | | Cyst | |
| * Uterus | Epithelium | Hyperplasia | Epithelial, Minimal |
| | | Metaplasia | Squamous, Moderate |
| | | Polyp Stromal | |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 658

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5334-658

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------------------|---------------|------------------------------|-------------------|
| | | Cyst | |
| [Cyst TGLs = 6-16.1] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 8-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Adenoma | |
| | C Cell | Hyperplasia | Marked |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | | Polyp Stromal | |
| [Polyp Stromal TGLs = 7-16.1] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCMDA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 659

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-659

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Ovary
- * Skin
- * Uterus
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Spinal Cord, Thoracic
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Stomach, Forestomach
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Clitoral Gland
- * Harderian Gland
- * Kidney
- * Liver
- [Hypertrophy TGLs = 7-12]
- * Lung
- Lymph Node
- [Erythrophagocytosis TGLs = 11-20]
- * Mammary Gland
- [Fibroadenoma TGLs = 2,3,4,5-21,22,23,24]
- * Nerve Trigeminal
- * Nose
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- Vacuolation, Cytoplasmic
- Hypercellularity
- Dilation
- Inflammation
- Nephropathy
- Cyst
- Hypertrophy
- Hypertrophy
- Necrosis
- Infiltration Cellular
- Erythrophagocytosis
- Fibroadenoma
- Hyperplasia
- Degeneration
- Accumulation, Hyaline Droplet
- Degeneration
- Degeneration
- Cyst
- Hyperplasia
- Moderate
- Marked
- Mild
- Granulomatous, Minimal
- Chronicprogr, Minimal
- Moderate
- Moderate
- Mild
- Mild
- Histiocyte, Minimal
- Moderate
- Multiple
- Marked
- Minimal
- Minimal
- Mild
- Mild
- Minimal
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 659

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-659

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------------|---------------|------------------------------|---------------------|
| * Salivary Glands | Parotid GI | Atrophy | Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| [Extramedullary Hematopoiesis | TGLs = 8-12] | | |
| * Stomach, Glandular | | Erosion | Mild |
| * Thymus | | Atrophy | Marked |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Urinary Bladder | | Inflammation | Acute, Minimal |
| Vagina | | Schwannoma Malignant | |
| [Schwannoma Malignant | TGLs = 6-25] | | |

PRIMARY CAUSE OF DEATH - Vagina Schwannoma Malignant

Animal Note: TGLs 9,10,12 = NCL (No Corresponding Lesion)

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 660

TRT#: 2

SEX: Female

DAY ON TEST: 744

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-660

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Stomach, Glandular
- * Bone Marrow
- * Heart
- * Intestine Small, Duodenum
- * Pancreas
- * Skin
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hypertrophy
 - [Degeneration TGLs = 8,9-7]
- * Brain
 - Compression
 - Note: Olfactory bulbs unavailable for evaluation.
- * Eye
 - Retina
 - Atrophy
- * Islets, Pancreatic
 - Hyperplasia
- * Kidney
 - Nephropathy
- * Liver
 - Bile Duct
 - Bile Duct
 - Cyst
 - Hyperplasia
 - Mixed Cell Focus
 - [Cyst TGLs = 13-21]
 - [Mixed Cell Focus TGLs = 10,14-20,12]
- * Lung
 - Alveolus
 - Infiltration Cellular
 - [Infiltration Cellular TGLs = 11-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Mammary Gland
 - Duct
 - Dilation
 - Galactocele
 - Hyperplasia
 - [Galactocele TGLs = 1-20]
- * Nerve Trigeminal
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 660

TRT#: 2

SEX: Female

DAY ON TEST: 744

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-660

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------------|-------------------------------|---------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Marked |
| | | Cyst | |
| | | Cystadenoma | |
| | [Cystadenoma TGLs = 3-16] | | |
| Oviduct | | Cyst | |
| | [Cyst TGLs = 2-16] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 12-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Mild |
| * Uterus | | Dilation | Mild |
| | Endometrium | Hyperplasia | Cystic, Mild |
| | | Polyp Stromal | |
| | [Dilation TGLs = 7-16] | | |
| | [Hyperplasia TGLs = 5-21] | | |
| | [Polyp Stromal TGLs = 4-16] | | |

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 661

TRT#: 2

SEX: Female

DAY ON TEST: 202

DOSE: 0.0W/kg(CDMA)chr

DISP: Accidentally Killed

HISTO: 12-5224-661

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Liver
- * Ovary
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Stomach, Glandular
- Trigeminal Ganglion
- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Pancreas
- * Salivary Glands
- * Spinal Cord, Lumbar
- * Thymus
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Parathyroid Gland
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Thyroid Gland
- * Bone Marrow
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Nose
- * Peripheral Nerve, Tibial
- * Skin
- * Stomach, Forestomach
- * Trachea

MISSING

- * Nerve Trigeminal

OBSERVATIONS

- * Bone
 - Cranium Fracture
 - Maxilla Fracture
 - Mandible Fracture
 - [Fracture TGLs = 3-20]
 - [Fracture TGLs = 2-19]
 - [Fracture TGLs = 1-20]
- * Eye Retina Dysplasia Minimal
- * Kidney Nephropathy Chronicprogr, Minimal
- * Lung Alveolus Infiltration Cellular Histiocyte, Minimal
- * Lymph Node, Mandibular Hemorrhage Minimal
- * Peripheral Nerve, Sciatic Degeneration Minimal
- * Spleen Extramedullary Hematopoiesis Minimal
- Pigment Mild
- * Uterus Dilatation Mild
- [Dilatation TGLs = 4-16]

PRIMARY CAUSE OF DEATH - Bone Cranium Fracture

CONTRIBUTORY CAUSE OF DEATH - Bone Maxilla Fracture

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 661

TRT#: 2

SEX: Female

DAY ON TEST: 202

DOSE: 0.0W/kg(CDMA)chr

DISP: Accidentally Killed

HISTO: 12-5224-661

ORGAN AND ACCOUNTABLE SITE STATUS

- Bone Mandible Fracture

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 663

TRT#: 2

SEX: Female

DAY ON TEST: 739

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-663

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Trachea
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Skeletal Muscle
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 Minimal
- * Adrenal Medulla
 - Hyperplasia
 Minimal
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
 Marked
Chronic Active, Mild
- * Heart
 - Note: One of pair available for evaluation.
 - [Dilation TGLs = 3-16]
 - Cardiomyopathy
 Minimal
- * Kidney
 - Nephropathy
 Chronicprogr, Minimal
- * Liver
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 4-10]
 - Infiltration Cellular
 Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Proliferation
 Plasma Cell, Minimal
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - Hyperplasia
 - [Fibroadenoma TGLs = 1, 2-20, 21]
 Mild
Multiple
Minimal
- * Nose
 - Olfactory Epi
 - Respirat Epith
 - Accumulation, Hyaline Droplet
 - Accumulation, Hyaline Droplet
 Moderate
Minimal
- * Ovary
 - Atrophy
 Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 663

TRT#: 2

SEX: Female

DAY ON TEST: 739

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-663

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| Note: Pars distalis available for evaluation. | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 664

TRT#: 2

SEX: Female

DAY ON TEST: 353

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-664

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Nerve Trigeminal
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Thyroid Gland
- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Pancreas
- Skeletal Muscle
- * Stomach, Forestomach
- * Trachea
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Stomach, Glandular
- Trigeminal Ganglion
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Mammary Gland
- * Pituitary Gland
- * Spinal Cord, Lumbar
- * Thymus
- * Urinary Bladder

OBSERVATIONS

- * Bone Marrow
 - * Clitoral Gland
 - * Liver
 - * Lung
 - Mesentery
 - Note: On lesion is relatively acute (TGL 2) and other is chronic with abundant fibrosis (TGL 3).
 - * Nose
 - * Ovary
 - * Peripheral Nerve, Sciatic
 - * Peripheral Nerve, Tibial
 - * Skin
 - [Sarcoma TGLs = 1-20]
 - * Spleen
 - Tissue NOS
 - [Necrosis TGLs = 2,3-21]
 - * Uterus
 - Note: Affecting endometrial glands.
- | | | | |
|--|---------------|-------------------------------|---------------------|
| | Duct | Hypercellularity | Moderate |
| | Alveolus | Dilation | Moderate |
| | | Extramedullary Hematopoiesis | Minimal |
| | | Infiltration Cellular | Histiocyte, Minimal |
| | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | | Atrophy | Moderate |
| | | Degeneration | Minimal |
| | | Degeneration | Minimal |
| | Subcut Tiss | Sarcoma | |
| | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| | Fat | Necrosis | Moderate |
| | Epithelium | Metaplasia | Squamous, Minimal |

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Sarcoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 665

TRT#: 2

SEX: Female

DAY ON TEST: 662

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-665

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Brain | * Esophagus | * Eye | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Kidney | * Lymph Node, Mesenteric |
| * Ovary | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | * Uterus |

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|-------------------------------|--------------------------|
| * Bone Marrow | | Hypercellularity | Marked |
| * Clitoral Gland | | Inflammation | Chronic Active, Moderate |
| * Harderian Gland | | Inflammation | Granulomatous, Minimal |
| * Heart | | Cardiomyopathy | Mild |
| * Liver | Ventricle Rgt | Cardiomyopathy | Minimal |
| | | Extramedullary Hematopoiesis | Minimal |
| | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 2-10] | | |
| Lymph Node | Iliac | Hyperplasia | Lymphocyte, Minimal |
| | Iliac | Proliferation | Plasma Cell, Moderate |
| | [Proliferation TGLs = 3-20] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | | Adenoma | Multiple |
| | | Fibroadenoma | |
| | | Hyperplasia | Marked |
| | [Adenoma TGLs = 5-9] | | |
| | [Fibroadenoma TGLs = 1-20] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 665

TRT#: 2

SEX: Female

DAY ON TEST: 662

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-665

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Approximately one-third of Level 3 available for evaluation.

| | | | |
|-----------------------------|-------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 666

TRT#: 2

SEX: Female

DAY ON TEST: 531

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-666

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|-----------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Brain | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Kidney | * Liver | * Lymph Node, Mesenteric | * Pancreas |
| * Parathyroid Gland | * Peripheral Nerve, Sciatic | * Pituitary Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Spinal Cord, Thoracic |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|----------------------------|---|-------------------------------|-------------------------|
| * Bone Marrow | | Hypercellularity | Moderate |
| * Clitoral Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 2-16] | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Moderate |
| | | Inflammation | Chronic Active, Minimal |
| | [Infiltration Cellular TGLs = 1-10] | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Minimal |
| | | Fibroadenoma | Multiple |
| | | Hyperplasia | Minimal |
| | [Fibroadenoma TGLs = 3,4,5-20,21,22] | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| | Note: Approximately two-thirds of Level 3 available for evaluation. | | |
| * Ovary | | Atrophy | Moderate |
| | | Cyst | |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 666

TRT#: 2

SEX: Female

DAY ON TEST: 531

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-666

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------|-------------|------------------------------|------------------|
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |
| | Epithelium | Metaplasia | Squamous, Mild |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 668

TRT#: 2

SEX: Female

DAY ON TEST: 744

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-668

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Urinary Bladder
- * Aorta
- * Heart
- * Intestine Small, Duodenum
- * Pancreas
- * Stomach, Forestomach
- * Uterus
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Stomach, Glandular
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hypertrophy Minimal
 - [Hypertrophy TGLs = 9-7]
- * Bone Marrow
 - Hypercellularity Marked
- * Clitoral Gland
 - Duct Dilation Mild
- * Eye
 - Retina Atrophy Minimal
- * Harderian Gland
 - Atrophy Minimal
- * Islets, Pancreatic
 - Adenoma
 - [Adenoma TGLs = 8-6]
- * Kidney
 - Nephropathy Chronicprogr, Minimal
- * Liver
 - Eosinophilic Focus
 - Bile Duct Hyperplasia Minimal
 - Kupffer Cell Hypertrophy Minimal
- * Lung
 - Alveolus Infiltration Cellular Histocyte, Mild
 - [Infiltration Cellular TGLs = 11-10]
- Lymph Node
 - Axillary Proliferation Plasma Cell, Moderate
 - [Proliferation TGLs = 4-20]
- * Lymph Node, Mandibular
 - Proliferation Plasma Cell, Mild
- * Mammary Gland
 - Duct Dilation Minimal
 - Fibroadenoma
 - Hyperplasia Moderate
 - [Fibroadenoma TGLs = 2-20]
- * Nerve Trigeminal
 - Degeneration Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 668

TRT#: 2

SEX: Female

DAY ON TEST: 744

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-668

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|----------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Cyst | |
| | [Cyst TGLs = 5-16] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| | Note: Pars distalis available for evaluation. | | |
| * Skin | Subcut Tiss | Fibroma | |
| | [Fibroma TGLs = 3-21] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | [Extramedullary Hematopoiesis TGLs = 6-12] | | |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGL 10 = NCL (No Corresponding Lesion)

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 669

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-669

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lymph Node, Mesenteric | * Parathyroid Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Stomach, Forestomach | * Stomach, Glandular | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|---|---------------|--|--|
| * Adrenal Cortex | | Degeneration Hyperplasia Hypertrophy | Cystic, Minimal Moderate Minimal |
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Harderian Gland | | Inflammation | Chronic Active, Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Hyperplasia | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| [Infiltration Cellular TGLs = 3-10] | | | |
| * Lymph Node, Mandibular | | Hyperplasia Proliferation | Lymphocyte, Mild Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation Fibroadenoma Hyperplasia | Mild Mild |
| [Fibroadenoma TGLs = 1-20] | | | |
| [Hyperplasia TGLs = 2-9.1] | | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Cyst | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 669

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-669

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Pancreas | Acinus | Atrophy | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Polyp Stromal | |

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 670

TRT#: 2

SEX: Female

DAY ON TEST: 737

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-670

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Esophagus
- * Eye
- * Harderian Gland
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Liver
- * Lymph Node, Mandibular
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Pancreas
- * Parathyroid Gland
- * Salivary Glands
- * Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Stomach, Forestomach
- * Stomach, Glandular
- * Trachea
- * Urinary Bladder

OBSERVATIONS

- * Clitoral Gland [Dilation TGLs = 1,2-16] Duct Dilation Moderate
- * Heart Cardiomyopathy Minimal
- * Kidney Nephropathy Chronicprogr, Minimal
- * Lung Alveolus Infiltration Cellular Histiocyte, Minimal
- Mesentery Adenocarcinoma Metastatic (Uterus)
- * Nerve Trigeminal Degeneration Mild
- * Nose Olfactory Epi Accumulation, Hyaline Droplet Mild
- Note: Focally incomplete septum.
- * Ovary Atrophy Mild
- Rete Ovarii Hyperplasia Minimal
- Degeneration Minimal
- * Peripheral Nerve, Sciatic Degeneration Mild
- * Peripheral Nerve, Tibial Degeneration Mild
- * Pituitary Gland Pars Distalis Hyperplasia Mild
- * Spinal Cord, Lumbar Nerve Degeneration Minimal
- * Spinal Cord, Thoracic Degeneration Mild
- * Spleen Extramedullary Hematopoiesis Minimal
- * Thymus Atrophy Minimal
- Cyst
- Hyperplasia Epithelial, Minimal
- * Thyroid Gland C Cell Hyperplasia Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 670

TRT#: 2

SEX: Female

DAY ON TEST: 737

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-670

ORGAN AND ACCOUNTABLE SITE STATUS

Trigeminal Ganglion

* Uterus

Epithelium

[Adenocarcinoma TGLs = 4-16]

[Dilation TGLs = 5-20]

[Polyp Stromal TGLs = 3-16]

Degeneration

Adenocarcinoma

Dilation

Metaplasia

Polyp Stromal

Minimal

Mild

Squamous, Moderate

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 671

TRT#: 2

SEX: Female

DAY ON TEST: 662

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-671

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Peripheral Nerve, Sciatic
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Peripheral Nerve, Tibial
- * Skin
- * Thyroid Gland
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion

MISSING

- * Clitoral Gland
- * Nerve Trigeminal

OBSERVATIONS

- * Bone Marrow Hypercellularity Marked
- * Brain
- Note: Olfactory bulbs unavailable for evaluation.
- * Liver Extramedullary Hematopoiesis Minimal
- Mixed Cell Focus
- * Lung Infiltration Cellular Histiocyte, Minimal
- Alveolus
- [Infiltration Cellular TGLs = 2-20]
- * Lymph Node, Mandibular Hyperplasia Lymphocyte, Mild
- Proliferation Plasma Cell, Moderate
- * Mammary Gland Dilation Mild
- Duct Fibroadenoma Multiple
- [Fibroadenoma TGLs = 1-20]
- * Nose Accumulation, Hyaline Droplet Minimal
- Respirat Epith Accumulation, Hyaline Droplet Moderate
- Olfactory Epi Atrophy Moderate
- * Ovary Degeneration Minimal
- * Spinal Cord, Lumbar Degeneration Minimal
- Nerve Degeneration Minimal
- * Spinal Cord, Thoracic Degeneration Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 671

TRT#: 2

SEX: Female

DAY ON TEST: 662

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-671

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------|-------------|------------------------------|---------------------|
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | | Angiectasis | Mild |
| | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Moderate |

[Angiectasis TGLs = 4-16]

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGLs 3,5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 672

TRT#: 2

SEX: Female

DAY ON TEST: 492

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-672

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|-----------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Ovary | * Parathyroid Gland | * Peripheral Nerve, Sciatic | * Pituitary Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Lumbar | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | * Uterus |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|----------------------------|---------------------------------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Hypertrophy | Moderate |
| * Bone Marrow | | Hypercellularity | Marked |
| * Clitoral Gland | | Inflammation | Chronic Active, Mild |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Eosinophilic Focus | |
| | Bile Duct | Hyperplasia | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 2-10] | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 1-20] | Hyperplasia | Minimal |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | Acinus | Atrophy | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Thymus | | Atrophy | Mild |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 674

TRT#: 2

SEX: Female

DAY ON TEST: 634

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-674

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------|-------------|--|---|
| * Thymus | Epithelium | Hyperplasia Inflammation Atrophy Cyst | Mild Chronic Active, Mild Minimal |
| * Thyroid Gland | C Cell | Hyperplasia Adenoma | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 675

TRT#: 2

SEX: Female

DAY ON TEST: 744

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-675

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|-------------------------------|------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Mild |
| | Bursa | Dilation | Marked |
| | [Dilation TGLs = 4-16] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | [Extramedullary Hematopoiesis TGLs = 8-12] | | |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| * Uterus | | Dilation | Moderate |
| | | Hemangiosarcoma | |
| | [Dilation TGLs = 5-16] | | |
| | [Hemangiosarcoma TGLs = 3,5,6-16] | | |

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGLs 9,11 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 677

TRT#: 2

SEX: Female

DAY ON TEST: 741

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-677

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|-------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 8-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Urinary Bladder | Urothelium | Hyperplasia | Mild |
| | | Leiomyosarcoma | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |
| [Hyperplasia TGLs = 4-20] | | | |

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 678

TRT#: 2

SEX: Female

DAY ON TEST: 739

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-678

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Harderian Gland
- * Intestine Small, Duodenum
- * Mammary Gland
- * Skin
- * Thymus
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex [Hypertrophy TGLs = 3-7] Hypertrophy Minimal
- * Bone Marrow Hypercellularity Minimal
- * Brain Meninges Granular Cell Tumor Benign
- * Clitoral Gland Duct Dilation Moderate [Dilation TGLs = 1-16]
- * Heart Cardiomyopathy Minimal
- * Islets, Pancreatic Hyperplasia Minimal
- * Kidney Nephropathy Chronicprogr, Minimal
- * Liver Bile Duct Cyst Mixed Cell Focus [Cyst TGLs = 4-12]
- * Lung Alveolus Infiltration Cellular Histiocyte, Minimal
- * Lymph Node, Mandibular Hyperplasia Lymphocyte, Minimal
- Proliferation Plasma Cell, Minimal
- Degeneration Moderate
- * Nerve Trigeminal Accumulation, Hyaline Droplet Moderate
- * Nose Olfactory Epi Atrophy Marked
- * Ovary Atrophy Minimal
- * Pancreas Acinus Degeneration Minimal
- * Peripheral Nerve, Sciatic Degeneration Mild
- * Peripheral Nerve, Tibial
- * Pituitary Gland Pars Distalis Cyst

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 678

TRT#: 2

SEX: Female

DAY ON TEST: 739

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-678

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|---------------|------------------------------|-----------------|
| | Pars Intermed | Cyst | |
| | Pars Distalis | Hyperplasia | Mild |
| [Hyperplasia TGLs = 6-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Trachea | Glands | Cyst | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Mild |
| | | Polyp Stromal | |
| [Polyp Stromal TGLs = 2-16] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 679

TRT#: 2

SEX: Female

DAY ON TEST: 744

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-679

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Skin
- * Trachea
- * Bone
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Bone Marrow
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Stomach, Forestomach
- * Esophagus
- * Intestine Small, Duodenum
- * Salivary Glands
- * Stomach, Glandular

MISSING

- * Adrenal Medulla
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Brain
- * Clitoral Gland
- * Eye
- * Harderian Gland
- * Heart
- * Islets, Pancreatic
- [Adenoma TGLs = 8-6]
- * Kidney
- * Liver
- * Lung
- * Lymph Node, Mandibular
- * Mammary Gland
- [Fibroadenoma TGLs = 1,2-20,21]
- * Nerve Trigeminal
- * Nose
- * Ovary
- * Pancreas
- Hypertrophy
- Hyperplasia
- Inflammation
- Atrophy
- Inflammation
- Cardiomyopathy
- Adenoma
- Hyperplasia
- Nephropathy
- Mixed Cell Focus
- Inflammation
- Hyperplasia
- Proliferation
- Dilation
- Fibroadenoma
- Degeneration
- Accumulation, Hyaline Droplet
- Atrophy
- Cyst
- Hyperplasia
- Minimal
- Mild
- Chronic Active, Mild
- Minimal
- Chronic, Mild
- Minimal
- Minimal
- Chronicprogr, Minimal
- Chronic Active, Minimal
- Lymphocyte, Minimal
- Plasma Cell, Mild
- Moderate
- Multiple
- Mild
- Moderate
- Moderate
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 679

TRT#: 2

SEX: Female

DAY ON TEST: 744

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-679

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Angiectasis | Mild |
| [Angiectasis TGLs = 7-4] | | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Marked |
| [Cyst TGLs = 3-16] | | | |

Animal Note: TGLs 4,5,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 680

TRT#: 2

SEX: Female

DAY ON TEST: 744

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-680

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Small, Duodenum
- * Lung
- Skeletal Muscle
- * Urinary Bladder
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Skin
- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Stomach, Glandular
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Trachea

MISSING

- * Adrenal Medulla

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Degeneration
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 - Cystic, Minimal
 - Moderate
 - Mild
- * Brain
 - [Degeneration TGLs = 4-7]
 - [Compression TGLs = 7-1,2]
 - Compression
 - Mild
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
 - Mild
 - Chronic Active, Moderate
- * Harderian Gland
 - Atrophy
 - Inflammation
 - Minimal
 - Chronic, Minimal
- * Heart
 - Cardiomyopathy
 - Minimal
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Bile Duct
 - Cyst
- * Lymph Node, Mandibular
 - [Cyst TGLs = 5-12]
 - Proliferation
 - Plasma Cell, Minimal
- * Mammary Gland
 - Duct
 - Dilation
 - Mild
 - Galactocele
 - Hyperplasia
 - Minimal
- * Nerve Trigeminal
 - [Galactocele TGLs = 2-9]
 - Degeneration
 - Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 680

TRT#: 2

SEX: Female

DAY ON TEST: 744

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-680

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|------------------------|-------------------------------|-------------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Marked |
| | Rete Ovarii | Hyperplasia | Mild |
| | | Sertoli Cell Tumor Benign | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 8-4] | | |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Adenoma | |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Cyst | |

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 681

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-681

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Skin
- Trigeminal Ganglion
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- Skeletal Muscle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
- * Clitoral Gland
- [Dilation TGLs = 2,3,4-16]
- * Heart
- * Kidney
- * Liver
- * Lymph Node, Mandibular
- * Mammary Gland
- [Fibroadenoma TGLs = 1-20]
- * Nerve Trigeminal
- * Nose
- * Ovary
- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Spinal Cord, Lumbar
- * Spinal Cord, Thoracic
- * Spleen
- Duct
- Duct
- Olfactory Epi
- Pars Distalis
- Nerve
- Hypertrophy
- Dilation
- Inflammation
- Cardiomyopathy
- Nephropathy
- Mixed Cell Focus
- Hyperplasia
- Proliferation
- Dilation
- Fibroadenoma
- Degeneration
- Accumulation, Hyaline Droplet
- Atrophy
- Fibrosis
- Degeneration
- Degeneration
- Hyperplasia
- Degeneration
- Degeneration
- Extramedullary Hematopoiesis
- Minimal
- Marked
- Chronic Active, Minimal
- Minimal
- Chronicprogr, Minimal
- Lymphocyte, Mild
- Plasma Cell, Mild
- Mild
- Mild
- Moderate
- Moderate
- Mild
- Minimal
- Minimal
- Marked
- Moderate
- Mild
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 681

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-681

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------------------|---------------------------|--------------------------------|
| * Stomach, Forestomach [Hyperplasia TGLs = 5-22RT] | Epithelium | Pigment Hyperplasia | Mild Moderate |
| * Thymus | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | Endometrium Epithelium | Hyperplasia Metaplasia | Cystic, Mild Squamous, Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 683

TRT#: 2

SEX: Female

DAY ON TEST: 739

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-683

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- Skeletal Muscle
- * Stomach, Glandular
- * Uterus
- * Bone Marrow
- * Harderian Gland
- * Intestine Large, Rectum
- * Lung
- * Skin
- * Thyroid Gland
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Trachea

MISSING

- * Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Clitoral Gland
- * Islets, Pancreatic
- * Kidney
- * Liver
- * Lymph Node, Mandibular
- * Mammary Gland
- [Fibroadenoma TGLs = 1-20]
- [Hyperplasia TGLs = 4-9]
- * Nerve Trigeminal
- * Nose
- * Ovary
- [Cyst TGLs = 5,6-16]
- * Pancreas
- * Peripheral Nerve, Sciatic
- Duct
- Olfactory Epi
- Acinus
- Vacuolation, Cytoplasmic
- Hyperplasia
- Dilation
- Inflammation
- Hyperplasia
- Nephropathy
- Clear Cell Focus
- Mixed Cell Focus
- Hyperplasia
- Proliferation
- Fibroadenoma
- Hyperplasia
- Degeneration
- Accumulation, Hyaline Droplet
- Cyst
- Atrophy
- Degeneration
- Minimal
- Minimal
- Moderate
- Chronic Active, Minimal
- Minimal
- Chronicprogr, Mild
- Lymphocyte, Minimal
- Plasma Cell, Mild
- Marked
- Moderate
- Moderate
- Minimal
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 683

TRT#: 2

SEX: Female

DAY ON TEST: 739

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-683

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| | | Thymoma Malignant | |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGLs 2,3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 684

TRT#: 2

SEX: Female

DAY ON TEST: 524

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-684

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|---------------------------|-----------------------------|--------------------------|
| * Aorta | * Bone | * Bone Marrow | * Clitoral Gland |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Thoracic | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | * Uterus |

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------------|------------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Brain | | Carcinoma | Metastatic (Pituitary Gland) |
| | | Compression | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Basophilic Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Moderate |
| | [Infiltration Cellular TGLs = 3-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | | Adenoma | Multiple |
| | [Adenoma TGLs = 1,2-9,20] | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| | Note: Level 3 largely absent. | | |
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 684

TRT#: 2

SEX: Female

DAY ON TEST: 524

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-684

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------|---------------|--------------|----------|
| * Pituitary Gland | Pars Distalis | Carcinoma | |
| [Carcinoma TGLs = 4-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Pigment | Moderate |
| * Stomach, Forestomach | | Edema | Mild |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Carcinoma

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 686

TRT#: 2

SEX: Female

DAY ON TEST: 737

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-686

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Thyroid Gland
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Trachea
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Kidney
- * Salivary Glands
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Cystic, Minimal
- * Bone Marrow
 - Hypertrophy
 - Minimal
- * Heart
 - Hypercellularity
 - Minimal
- * Liver
 - Cardiomyopathy
 - Minimal
 - Basophilic Focus
 - Eosinophilic Focus
 - Infiltration Cellular
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 2-10]
 - Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Hyperplasia
 - Lymphocyte, Mild
 - Proliferation
 - Plasma Cell, Minimal
- * Mammary Gland
 - Duct
 - Dilation
 - Minimal
 - Fibroadenoma
 - Hyperplasia
 - Minimal
 - [Fibroadenoma TGLs = 1-20]
- * Nerve Trigeminal
 - Degeneration
 - Mild
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Moderate
 - Respirat Epith
 - Accumulation, Hyaline Droplet
 - Minimal
- * Ovary
 - Atrophy
 - Moderate
 - Rete Ovarii
 - Hyperplasia
 - Minimal
- * Peripheral Nerve, Sciatic
 - Degeneration
 - Mild
- * Peripheral Nerve, Tibial
 - Degeneration
 - Minimal
- * Pituitary Gland
 - Pars Distalis
 - Hyperplasia
 - Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 686

TRT#: 2

SEX: Female

DAY ON TEST: 737

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-686

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLs = 3-4]

| | | | |
|-------------------------|-------------|---------------|---------------------|
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | | Polyp Stromal | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 687

TRT#: 2

SEX: Female

DAY ON TEST: 739

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-687

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|----------------------|
| | [Fibroadenoma TGLs = 1,3,4,5-20,21,22,23] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Moderate |
| | | Cyst | |
| * Parathyroid Gland | | Fibrosis | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 19-4] | | |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | [Extramedullary Hematopoiesis TGLs = 12-12] | | |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Moderate |
| | [Atrophy TGLs = 18-6] | | |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Urinary Bladder | | Dilation | Mild |
| | [Dilation TGLs = 10-13] | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Cervix | Schwannoma Malignant | |
| | [Schwannoma Malignant TGLs = 8,9-26,27] | | |
| Vagina | | Schwannoma Malignant | Metastatic (Uterus) |
| | [Schwannoma Malignant TGLs = 6,7-25] | | |

Animal Note: TGL 11 = NST (No Section Taken)

Animal Note: TGLs 16,21 = NCL (No Corresponding Lesion)

Animal Note: TGL 13 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 688

TRT#: 2

SEX: Female

DAY ON TEST: 608

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-688

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLs = 5-4]

| | | | |
|-------------------------|-------------|------------------------------|------------------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Mild |
| * Thyroid Gland | C Cell | Adenoma | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Marked |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 689

TRT#: 2

SEX: Female

DAY ON TEST: 513

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-689

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Brain
- * Esophagus
- * Eye
- * Harderian Gland
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Lymph Node, Mesenteric
- * Nerve Trigeminal
- * Pancreas
- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Salivary Glands
- * Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Spinal Cord, Lumbar
- * Spinal Cord, Thoracic
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea
- * Trigeminal Ganglion
- * Urinary Bladder

OBSERVATIONS

- * Bone Marrow Hypercellularity Mild
- * Clitoral Gland Duct Dilation Moderate
[Dilation TGLs = 2-16]
- * Heart Cardiomyopathy Minimal
- * Kidney Nephropathy Chronicprogr, Moderate
[Nephropathy TGLs = 3-13]
- * Liver Eosinophilic Focus
Mixed Cell Focus
[Eosinophilic Focus TGLs = 4-12]
- * Lung Alveolus Infiltration Cellular Histiocyte, Minimal
[Infiltration Cellular TGLs = 5-10]
- * Lymph Node, Mandibular Proliferation Plasma Cell, Minimal
- * Mammary Gland Duct Dilation Mild
Galactocele
- * Nose Olfactory Epi Accumulation, Hyaline Droplet Mild
- * Ovary Atrophy Moderate
- * Pituitary Gland Pars Distalis Hyperplasia Mild
- * Spleen Extramedullary Hematopoiesis Minimal
Pigment Mild
- * Thymus Hyperplasia Epithelial, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 689

TRT#: 2

SEX: Female

DAY ON TEST: 513

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-689

ORGAN AND ACCOUNTABLE SITE STATUS

* Uterus

Epithelium

Metaplasia

Squamous, Marked

Schwannoma Malignant

[Schwannoma Malignant TGLs = 1,7-20,21RT]

PRIMARY CAUSE OF DEATH - Uterus Schwannoma Malignant

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 690

TRT#: 2

SEX: Female

DAY ON TEST: 622

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-690

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Skin
- * Thyroid Gland
- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Spinal Cord, Cervical
- * Trachea
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Liver
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder

INSUFFICIENT TISSUE

- * Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hypertrophy
 Cystic, Mild
- * Bone Marrow
 - Hypercellularity
 Mild
- * Brain
 - Compression
 Mild
- * Clitoral Gland
 - Duct
 - Dilation
 Moderate
- * Kidney
 - Nephropathy
 Chronicprogr, Minimal
- * Lung
 - Alveolus
 - Infiltration Cellular
 - Inflammation
 Histiocyte, Mild
Granulomatous, Minimal
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 Lymphocyte, Minimal
Plasma Cell, Minimal
- * Mammary Gland
 - Adenocarcinoma
 - Dilation
 - Hyperplasia
 Multiple
Minimal
Marked
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 Moderate
- * Ovary
 - Bursa
 - Atrophy
 - Cyst
 - Dilation
 Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 690

TRT#: 2

SEX: Female

DAY ON TEST: 622

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-690

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|-------------------|
| [Dilation TGLs = 4-16] | Rete Ovarii | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 6-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| * Uterus | Epithelium | Metaplasia | Squamous, Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 691

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-691

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Skin
- * Thyroid Gland
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Pancreas
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Necrosis
- * Adrenal Medulla
 - Hyperplasia
- * Heart
 - Cardiomyopathy
- * Islets, Pancreatic
- * Kidney
 - Artery
 - Inflammation
 - Nephropathy
 - [Nephropathy TGLs = 5-13]
- * Liver
- * Lung
 - Alveolus
 - Mixed Cell Focus
 - Artery
 - Infiltration Cellular
 - Inflammation
 - [Infiltration Cellular TGLs = 6-10]
- * Lymph Node, Mandibular
 - Proliferation
- * Mammary Gland
 - Fibroadenoma
 - Hyperplasia
 - [Fibroadenoma TGLs = 1,3-20,21]
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Ovary
 - Atrophy
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration
- * Spinal Cord, Lumbar
 - Nerve
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 691

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-691

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------|------------|------------------------------|---------------------|
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| Tissue NOS | Fat | Necrosis | Mild |
| [Necrosis TGLs = 4-22] | | | |
| * Uterus | | Adenocarcinoma | |
| | Epithelium | Metaplasia | Squamous, Minimal |

Animal Note: TGL 2 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 692

TRT#: 2

SEX: Female

DAY ON TEST: 741

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-692

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Stomach, Glandular
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Pancreas
- * Skin
- * Trachea

MISSING

- * Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - [Degeneration TGLs = 7-7]
 - Degeneration
 - Hyperplasia
 - Hypertrophy
 - Cystic, Minimal
 - Minimal
 - Minimal
- * Clitoral Gland
 - [Dilation TGLs = 1,2-16]
 - Duct
 - Dilation
 - Inflammation
 - Marked
 - Chronic Active, Mild
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
 - Adenoma
 - Minimal
 - Minimal
- * Islets, Pancreatic
 - [Adenoma TGLs = 6-6]
- * Kidney
 - Nephropathy
 - Basophilic Focus
 - Mixed Cell Focus
 - Chronicprogr, Minimal
- * Liver
 - [Basophilic Focus TGLs = 9-20]
- * Lung
 - [Infiltration Cellular TGLs = 8-10]
 - Alveolus
 - Infiltration Cellular
 - Histiocyte, Mild
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Lymphocyte, Mild
 - Plasma Cell, Mild
- * Mammary Gland
 - Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 692

TRT#: 2

SEX: Female

DAY ON TEST: 741

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-692

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroadenoma TGLs = 3-20]

| | | | |
|--------------------|---------------|--------------------------------|----------|
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |
| | | Granulosa Cell Tumor Malignant | |

[Granulosa Cell Tumor Malignant TGLs = 4-16]

| | | | |
|-----------------------------|--------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Adenocarcinoma | |
| | | Cyst | |

[Adenocarcinoma TGLs = 5-16]

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 693

TRT#: 2

SEX: Female

DAY ON TEST: 744

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-693

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Aorta | * Bone | * Brain | * Esophagus |
| * Eye | * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | Skeletal Muscle | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|---|---------------------------------------|-------------------------------|--------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Mild |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Bone Marrow | | Hypercellularity | Minimal |
| * Brain | | | |
| Note: Scant olfactory bulbs available for evaluation. | | | |
| * Clitoral Gland | Duct | Dilation | Mild |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | | Angiectasis | Minimal |
| | | Mixed Cell Focus | |
| | [Angiectasis TGLs = 3-20] | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 4-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | | Adenocarcinoma | |
| | Duct | Dilation | Mild |
| | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 1-20] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 693

TRT#: 2

SEX: Female

DAY ON TEST: 744

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-693

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|-------------------------------|---------------------|
| * Ovary | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | | Atrophy | Marked |
| | Rete Ovarii | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Marked |
| | | Polyp Stromal | |

Note: Large cyst within center of polyp.

[Polyp Stromal TGLs = 2-16]

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 694

TRT#: 2

SEX: Female

DAY ON TEST: 739

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-694

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|---------------|------------------------------|---------------------|
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| [Hyperplasia TGLs = 5-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Mild |
| | | Polyp Stromal | |
| [Polyp Stromal TGLs = 6-20] | | | |

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 695

TRT#: 2

SEX: Female

DAY ON TEST: 668

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-695

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Stomach, Forestomach
- * Uterus
- * Aorta
- * Eye
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Harderian Gland
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Thyroid Gland
- * Brain
- * Intestine Large, Rectum
- * Lung
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea

MISSING

- * Clitoral Gland
- * Thymus

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Small, Duodenum

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Heart
- * Kidney
- * Liver
- * Mammary Gland
- [Adenocarcinoma TGLs = 2-20]
- [Dilation TGLs = 7-9]
- [Fibroadenoma TGLs = 1-21]
- * Nerve Trigeminal
- * Nose
- * Ovary
- Hypertrophy
- Hypercellularity
- Cardiomyopathy
- Dilation
- Extramedullary Hematopoiesis
- Hyperplasia
- Necrosis
- Adenocarcinoma
- Dilation
- Fibroadenoma
- Minimal
- Marked
- Minimal
- Mild
- Minimal
- Minimal
- Mild
- Multiple
- Moderate
- Moderate
- Marked
- Degeneration
- Accumulation, Hyaline Droplet
- Atrophy
- Cyst

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 695

TRT#: 2

SEX: Female

DAY ON TEST: 668

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-695

ORGAN AND ACCOUNTABLE SITE STATUS

[Cyst TGLs = 6-16]

| | | | |
|--|---------------|------------------------------|------------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| Tissue NOS | | Inflammation | Chronic Active, Marked |
| Note: Possible clitoral gland; tissue too inflamed to identify definitively. | | | |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Urinary Bladder | | Inflammation | Acute, Marked |
| | | Necrosis | Moderate |

Note: Multiple thromboses present in submucosal vessels.

[Inflammation TGLs = 3,4-13]

PRIMARY CAUSE OF DEATH - Urinary Bladder Inflammation

Animal Note: TGL 5 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 696

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-696

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Pancreas
- * Skin
- * Thyroid Gland
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Vacuolation, Cytoplasmic
 Cystic, Moderate
- * Bone Marrow
 - Hypercellularity
 Minimal
- * Brain
 - Compression
 Marked
- Note: Olfactory bulbs unavailable for evaluation.
 - [Compression TGLs = 9-2]
- * Clitoral Gland
 - Duct
 - [Dilation TGLs = 5-16]
 Dilation
 - Dilation
 Marked
- * Intestine Small, Ileum
 - Hyperplasia
 Lymphocyte, Mild
- * Kidney
 - Nephropathy
 Chronicprogr, Mild
- * Liver
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 7-10]
 Infiltration Cellular
 - Infiltration Cellular
 Histiocyte, Minimal
- Lymph Node
 - Iliac
 - Iliac
 - [Erythrophagocytosis TGLs = 8-22]
 - [Proliferation TGLs = 8-22]
 Erythrophagocytosis
 - Erythrophagocytosis
 - Proliferation
 Mild
 - Proliferation
 Plasma Cell, Mild
- * Lymph Node, Mandibular
 - Hyperplasia
 Lymphocyte, Mild
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - Galactocele
 - Hyperplasia
 Dilation
 - Dilation
 - Fibroadenoma
 - Galactocele
 - Hyperplasia
 Moderate
 - Fibroadenoma
 - Galactocele
 - Hyperplasia
 Multiple
 - Hyperplasia
 Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 696

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-696

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroadenoma TGLs = 1,2-20,21]

[Galactocele TGLs = 3-22]

| | | | |
|-----------------------------|-------------------------|-------------------------------|---------------------|
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Cyst | |
| | [Adenoma TGLs = 10-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| | [Atrophy TGLs = 6-6] | | |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Mild |
| | | Polyp Stromal | |

Animal Note: TGL 4 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 697

TRT#: 2

SEX: Female

DAY ON TEST: 489

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-697

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Liver
- * Pancreas
- * Salivary Glands
- * Spinal Cord, Lumbar
- * Thyroid Gland
- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Trachea
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Peripheral Nerve, Tibial
- * Skin
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Stomach, Glandular

OBSERVATIONS

- * Bone Marrow
- * Clitoral Gland
- * Kidney
- * Lung
- [Infiltration Cellular TGLs = 4-10]
- * Mammary Gland
- Alveolus
- Duct
- Note: Multiple galactoceles are ruptured with granulomatous inflammation.
- [Galactocoele TGLs = 1-9,20]
- * Nose
- * Ovary
- * Peripheral Nerve, Sciatic
- * Spleen
- [Extramedullary Hematopoiesis TGLs = 5-12]
- * Thymus
- [Atrophy TGLs = 6-6]
- Tissue NOS
- Fat
- Hypercellularity
- Inflammation
- Nephropathy
- Infiltration Cellular
- Dilation
- Galactocoele
- Hyperplasia
- Accumulation, Hyaline Droplet
- Atrophy
- Degeneration
- Extramedullary Hematopoiesis
- Pigment
- Atrophy
- Hyperplasia
- Necrosis
- Marked
- Chronic Active, Minimal
- Chronicprogr, Minimal
- Histiocyte, Minimal
- Moderate
- Moderate
- Minimal
- Moderate
- Minimal
- Moderate
- Minimal
- Mild
- Epithelial, Mild
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 697

TRT#: 2

SEX: Female

DAY ON TEST: 489

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-697

ORGAN AND ACCOUNTABLE SITE STATUS

Abdominal

Schwannoma Malignant

[Necrosis TGLs = 2-20]

[Schwannoma Malignant TGLs = 3-21]

* Urinary Bladder

Schwannoma Malignant

Metastatic (Tissue Nos)

* Uterus

Endometrium

Hyperplasia

Cystic, Mild

Epithelium

Metaplasia

Squamous, Mild

PRIMARY CAUSE OF DEATH - Tissue NOS Abdominal Schwannoma Malignant

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 698

TRT#: 2

SEX: Female

DAY ON TEST: 739

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-698

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Pancreas
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Liver
- * Skin
- * Thyroid Gland
- * Brain
- * Heart
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Trachea

MISSING

- * Nerve Trigeminal

OBSERVATIONS

- * Adrenal Cortex
 - Atrophy
 - Carcinoma
 - Pigment

[Atrophy TGLs = 2-7]
 [Carcinoma TGLs = 4-7]
 [Pigment TGLs = 3-7]
- * Adren Medulla
 - Note: One of pair available for evaluation.
- * Bone Marrow
 - Hypercellularity
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
- * Intestine Large, Rectum
 - Granular Cell Tumor Benign
- * Kidney
 - Renal Tubule
 - Cyst
 - Nephropathy
- * Lung
 - Alveolus
 - Infiltration Cellular

[Infiltration Cellular TGLs = 5-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation

Marked

Moderate

Mild

Marked
Chronic Active, Mild

Chronicprogr, Minimal
Histiocyte, Moderate

Lymphocyte, Mild
Plasma Cell, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 698

TRT#: 2

SEX: Female

DAY ON TEST: 739

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-698

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|-------------------------------|-------------|
| * Mammary Gland | | Hyperplasia | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Marked |
| * Parathyroid Gland | | Hyperplasia | Focal, Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Intermed | Cyst | |
| | Pars Distalis | Hyperplasia | Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| * Uterus | | Polyp Stromal | |

[Polyp Stromal TGLs = 6-16]

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 699

TRT#: 2

SEX: Female

DAY ON TEST: 707

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-699

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lymph Node, Mesenteric |
| * Pancreas | * Parathyroid Gland | * Salivary Glands | Skeletal Muscle |
| * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | * Uterus |

OBSERVATIONS

- | | | | |
|---|---------------|-------------------------------|-------------------------|
| * Adren Medulla | | | |
| Note: One of pair available for evaluation. | | | |
| * Brain | | Compression | Mild |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| [Compression TGLs = 6-2] | | | |
| * Clitoral Gland | Duct | Dilation | Moderate |
| * Islets, Pancreatic | | Hyperplasia | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Hepatocellular Adenoma | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | | Inflammation | Chronic Active, Minimal |
| [Infiltration Cellular TGLs = 8-10] | | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Moderate |
| * Mammary Gland | | Fibroadenoma | |
| | | Hyperplasia | Marked |
| [Fibroadenoma TGLs = 1-20] | | | |
| [Hyperplasia TGLs = 4-9] | | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Minimal |
| | | Congestion | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 699

TRT#: 2

SEX: Female

DAY ON TEST: 707

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-699

ORGAN AND ACCOUNTABLE SITE STATUS

[Congestion TGLs = 5-16]

* Peripheral Nerve, Sciatic

Degeneration

Mild

* Peripheral Nerve, Tibial

Degeneration

Mild

* Pituitary Gland

Pars Distalis

Adenoma

[Adenoma TGLs = 2-4]

* Skin

Epidermis

Hyperplasia

Marked

Note: Hyperplastic epidermis with abundant keratin material likely of vulva region and corresponds to vaginal mass diagnosed grossly.

[Hyperplasia TGLs = 7-21]

* Spinal Cord, Lumbar

Nerve

Degeneration

Minimal

* Spinal Cord, Thoracic

Degeneration

Minimal

* Spleen

Red Pulp

Atrophy

Mild

White Pulp

Atrophy

Mild

Pigment

Mild

* Thymus

Atrophy

Mild

Cyst

Hyperplasia

Epithelial, Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 703

TRT#: 2

SEX: Female

DAY ON TEST: 636

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-703

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Bone Marrow |
| * Clitoral Gland | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Nerve Trigeminal | * Pancreas | * Salivary Glands | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|-----------------------------|------------------------------|-------------------------------|-----------------------|
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Brain | | Compression | Mild |
| | [Compression TGLs = 2-1,2] | | |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Basophilic Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Marked |
| | | Fibroadenoma | |
| | | Galactocele | |
| | | Hyperplasia | Minimal |
| | [Fibroadenoma TGLs = 5-21] | | |
| | [Galactocele TGLs = 4-20] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Moderate |
| | | Cyst | |
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 703

TRT#: 2

SEX: Female

DAY ON TEST: 636

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-703

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLs = 3-4]

| | | | |
|-------------------------|------------|--------------|---------------------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Moderate |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Moderate |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Epithelium | Metaplasia | Squamous, Moderate |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 704

TRT#: 2

SEX: Female

DAY ON TEST: 737

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-704

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Liver
- Skeletal Muscle
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Stomach, Forestomach
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Bone Marrow
- * Clitoral Gland
- * Heart
- * Islets, Pancreatic
- * Kidney
- * Lung
- [Infiltration Cellular TGLs = 4-10]
- * Lymph Node, Mandibular
- * Mammary Gland
- * Nerve Trigeminal
- * Nose
- * Ovary
- [Cyst TGLs = 3-16]
- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- Pars Distalis
- Hypertrophy
- Hyperplasia
- Hypercellularity
- Inflammation
- Cardiomyopathy
- Hyperplasia
- Nephropathy
- Infiltration Cellular
- Hyperplasia
- Proliferation
- Dilation
- Hyperplasia
- Degeneration
- Accumulation, Hyaline Droplet
- Atrophy
- Cyst
- Fibrosis
- Degeneration
- Degeneration
- Adenoma
- Minimal
- Mild
- Minimal
- Chronic Active, Minimal
- Minimal
- Minimal
- Chronicprogr, Mild
- Histiocyte, Moderate
- Lymphocyte, Minimal
- Plasma Cell, Minimal
- Mild
- Marked
- Moderate
- Mild
- Marked
- Minimal
- Mild
- Mild

Note: Pars distalis available for evaluation.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 704

TRT#: 2

SEX: Female

DAY ON TEST: 737

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-704

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|-------------|------------------------------|----------------------|
| * Skin | | Cyst Epithelial Inclusion | |
| Note: Epithelial inclusion cyst present in clitoral gland section. | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Cervix | Hyperplasia | Stromal, Mild |
| | | Inflammation | Suppurative, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |

[Hyperplasia TGLs = 5-20RT]

Animal Note: TGLs 1,2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 705

TRT#: 2

SEX: Female

DAY ON TEST: 739

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-705

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Urinary Bladder
- * Aorta
- * Clitoral Gland
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Stomach, Glandular
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 - Cystic, Minimal
 - Minimal
 - Minimal
- [Hypertrophy TGLs = 7-7]
- * Adren Medulla
 - Note: One of pair available for evaluation.
- * Eye
 - Retina
 - Atrophy
- * Heart
 - Cardiomyopathy
- * Kidney
 - Nephropathy
 - Chronicprogr, Mild
- [Nephropathy TGLs = 6-13]
- * Liver
 - Angiectasis
 - Hepatocellular Adenoma
 - Mild
- [Angiectasis TGLs = 9-21]
- [Hepatocellular Adenoma TGLs = 8-20]
- * Lung
 - Hemorrhage
 - Hyperplasia
- * Lymph Node, Mandibular
 - Epithlm Alvlus
 - Hyperplasia
 - Proliferation
 - Galactocele
 - Lymphocyte, Minimal
 - Plasma Cell, Mild
- * Mammary Gland
 - Galactocele
 - TGLs = 2-9]
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 705

TRT#: 2

SEX: Female

DAY ON TEST: 739

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-705

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Ovary | | Atrophy | Moderate |
| | Rete Ovarii | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Uterus | | Cyst | |
| | Cervix | Leiomyosarcoma | |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | | Polyp Stromal | |

[Leiomyosarcoma TGLs = 4-20]

[Polyp Stromal TGLs = 3-16.1]

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 706

TRT#: 2

SEX: Female

DAY ON TEST: 550

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-706

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

| | | | |
|-----------------------------|------------------------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Mild |
| * Bone Marrow | | Hypercellularity | Marked |
| * Clitoral Gland | Duct | Dilation | Marked |
| | [Dilation TGLs = 4,5-16] | | |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Basophilic Focus | |
| | | Mixed Cell Focus | |
| * Mammary Gland | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 1-20] | Hyperplasia | Moderate |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Cyst | |
| | [Cyst TGLs = 2-16] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Thymus | | Atrophy | Minimal |
| * Uterus | Cervix | Hyperplasia | Stromal, Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 706

TRT#: 2

SEX: Female

DAY ON TEST: 550

DOSE: 0.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-706

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLs = 6-21RT]

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 707

TRT#: 2

SEX: Female

DAY ON TEST: 738

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-707

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Pancreas
- * Skin
- * Thyroid Gland
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 - Cystic, Moderate
 - Mild
 - Mild
 - Mild
- [Degeneration TGLs = 9, 11-7]
- [Vacuolation, Cytoplasmic TGLs = 10-7]
- * Adrenal Medulla
 - Note: One of pair available for evaluation.
 - Pheochromocytoma Benign
- * Bone Marrow
 - Hypercellularity
 - Marked
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
 - Marked
 - Chronic Active, Minimal
- [Dilation TGLs = 4-16]
- * Harderian Gland
 - Atrophy
 - Minimal
- * Islets, Pancreatic
 - Hyperplasia
 - Minimal
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Basophilic Focus
 - Extramedullary Hematopoiesis
 - Hepatocellular Adenoma
 - Minimal
- [Hepatocellular Adenoma TGLs = 14-12]
- * Lung
 - Alveolus
 - Infiltration Cellular
 - Histiocyte, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 707

TRT#: 2

SEX: Female

DAY ON TEST: 738

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-707

ORGAN AND ACCOUNTABLE SITE STATUS

[Infiltration Cellular TGLs = 13-10]

| | | | |
|--------------------------|--|---------------|----------------------|
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Moderate |
| | | Proliferation | Plasma Cell, Mild |

| | | | |
|-----------------|------|----------------|----------|
| * Mammary Gland | | Adenocarcinoma | |
| | Duct | Dilation | Minimal |
| | | Fibroadenoma | Multiple |

[Adenocarcinoma TGLs = 2-21]

[Fibroadenoma TGLs = 1,2,3-20,21,22]

| | | | |
|--------------------|---------------|-------------------------------|----------|
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Moderate |
| | | Cyst | |

[Cyst TGLs = 5-16]

| | | | |
|-----------------------------|---------------|------------------------------|----------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |

| | | | |
|----------|-------------|---------------|---------------------|
| * Uterus | Endometrium | Hyperplasia | Epithelial, Minimal |
| | | Hyperplasia | Cystic, Minimal |
| | | Polyp Stromal | |

[Polyp Stromal TGLs = 6-16]

Animal Note: TGLs 7,8,12 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 708

TRT#: 2

SEX: Female

DAY ON TEST: 740

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-708

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------------------|------------------------------|-------------------|
| * Ovary | | Atrophy | Marked |
| | Bursa | Dilation | Mild |
| | [Dilation TGLs = 3-16] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| | [Hyperplasia TGLs = 6-4] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Thymoma Benign | |
| * Thyroid Gland | C Cell | Adenoma | |
| | [Adenoma TGLs = 4-8] | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |
| | Epithelium | Metaplasia | Squamous, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 709

TRT#: 2

SEX: Female

DAY ON TEST: 738

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-709

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- Trigeminal Ganglion
- * Bone
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Rectum
- * Lung
- * Salivary Glands
- * Stomach, Glandular
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hypertrophy Mild
 - Vacuolation, Cytoplasmic Minimal
 - [Vacuolation, Cytoplasmic TGLs = 6-7]
- * Adrenal Medulla
 - Hyperplasia Minimal
 - Note: One of pair available for evaluation.
- * Bone Marrow
 - Hypercellularity Minimal
- * Brain
 - Compression Mild
 - [Compression TGLs = 9-2]
- * Clitoral Gland
 - Duct
 - Dilation Moderate
 - Inflammation Chronic Active, Minimal
 - [Dilation TGLs = 2-16]
- * Eye
 - Retina
 - Atrophy Minimal
- * Heart
 - Cardiomyopathy Minimal
- * Islets, Pancreatic
 - Adenoma
- * Kidney
 - Nephropathy Chronicprogr, Minimal
- * Liver
 - Eosinophilic Focus
 - Extramedullary Hematopoiesis Minimal
 - Mixed Cell Focus
- * Lymph Node, Mandibular
 - Hyperplasia Lymphocyte, Mild
 - Proliferation Plasma Cell, Mild
- * Mammary Gland
 - Adenocarcinoma
 - Fibroadenoma
 - Hyperplasia Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 709

TRT#: 2

SEX: Female

DAY ON TEST: 738

DOSE: 0.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-709

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenocarcinoma TGLs = 4-21]

[Fibroadenoma TGLs = 3-20]

[Hyperplasia TGLs = 1-9]

| | | | |
|-----------------------------|-------------------------|-------------------------------|----------------------|
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| | Olfactory Epi | Metaplasia | Respiratory, Minimal |
| * Ovary | | Cyst | |
| | [Cyst TGLs = 5-16] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 10-4] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | | Polyp Stromal | |

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 710

TRT#: 2

SEX: Female

DAY ON TEST: 629

DOSE: 0.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-710

ORGAN AND ACCOUNTABLE SITE STATUS

Galactocele

[Galactocele TGLs = 1-9,20]

* Nerve Trigeminal

Degeneration

Mild

* Nose

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

Olfactory Epi

Accumulation, Hyaline Droplet

Mild

* Ovary

Atrophy

Mild

* Peripheral Nerve, Sciatic

Degeneration

Minimal

* Peripheral Nerve, Tibial

Degeneration

Minimal

* Pituitary Gland

Pars Distalis

Adenoma

[Adenoma TGLs = 12-4]

* Spinal Cord, Lumbar

Nerve

Degeneration

Minimal

* Spinal Cord, Thoracic

Degeneration

Minimal

* Spleen

Pigment

Moderate

* Stomach, Forestomach

Epithelium

Hyperplasia

Minimal

* Thymus

Hemorrhage

Mild

[Hemorrhage TGLs = 4-6]

* Thyroid Gland

Note: One of a pair available for evaluation.

* Uterus

Epithelium

Metaplasia

Squamous, Moderate

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 3,5,8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1446

TRT#: 4

SEX: Female

DAY ON TEST: 714

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1446

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Clitoral Gland
- * Esophagus
- * Eye
- * Harderian Gland
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Islets, Pancreatic
- * Kidney
- * Liver
- * Lymph Node, Mesenteric
- * Pancreas
- * Parathyroid Gland
- * Salivary Glands
- Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea
- Trigeminal Ganglion
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Small, Ileum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Brain
- Compression
- Mild
- * Lung
- Congestion
- Mild
- Alveolus
- Infiltration Cellular
- Histiocyte, Moderate
- [Infiltration Cellular TGLs = 4-10]
- * Lymph Node, Mandibular
- Hyperplasia
- Lymphocyte, Mild
- Proliferation
- Plasma Cell, Mild
- * Mammary Gland
- Duct
- Dilation
- Minimal
- * Nerve Trigeminal
- Degeneration
- Mild
- * Nose
- Olfactory Epi
- Accumulation, Hyaline Droplet
- Mild
- Respirat Epith
- Accumulation, Hyaline Droplet
- Minimal
- Note: Approximately two-thirds of Level 3 available for evaluation.
- * Ovary
- Atrophy
- Marked
- * Peripheral Nerve, Sciatic
- Degeneration
- Minimal
- * Peripheral Nerve, Tibial
- Degeneration
- Minimal
- * Pituitary Gland
- Pars Distalis
- Adenoma
- [Adenoma TGLs = 5-4]
- * Spinal Cord, Lumbar
- Nerve
- Degeneration
- Moderate
- * Spinal Cord, Thoracic
- Degeneration
- Minimal
- * Spleen
- Extramedullary Hematopoiesis
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1446

TRT#: 4

SEX: Female

DAY ON TEST: 714

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1446

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------|-------------|-------------|-----------------|
| * Thymus | | Pigment | Moderate |
| | | Cyst | |
| | | Hemorrhage | Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 1,2,3,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1447

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1447

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Clitoral Gland
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Spinal Cord, Cervical
- * Trachea
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Kidney
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Skin
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Hyperplasia
- * Eye
 - Retina
 - Atrophy
- * Heart
 - Cardiomyopathy
- * Liver
 - Bile Duct
 - Cyst
 - Eosinophilic Focus
 - Infiltration Cellular
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 2-10]
- Lymph Node
 - Mediastinal
 - [Erythrophagocytosis TGLs = 3-20]
- * Lymph Node, Mesenteric
 - Erythrophagocytosis
- * Mammary Gland
 - Fibroadenoma
 - [Fibroadenoma TGLs = 1-9]
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Metaplasia
- * Ovary
 - Atrophy
 - Cyst
 - [Cyst TGLs = 5-16]
- * Parathyroid Gland
 - Fibrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1447

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1447

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 4-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | Epithelium | Metaplasia | Squamous, Marked |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1448

TRT#: 4

SEX: Female

DAY ON TEST: 723

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1448

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Esophagus
- * Eye
- * Harderian Gland
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Liver
- * Lymph Node, Mesenteric
- * Pancreas
- * Parathyroid Gland
- * Salivary Glands
- * Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Stomach, Forestomach
- * Trachea
- Trigeminal Ganglion
- * Urinary Bladder
- * Uterus

OBSERVATIONS

- * Brain
 - Compression
 - Mild
 - Note: Olfactory bulbs unavailable for evaluation.
 - [Compression TGLs = 7-2]
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
 - Moderate
 - Chronic Active, Minimal
 - [Dilation TGLs = 2-16]
- * Heart
 - Cardiomyopathy
 - Minimal
- * Islets, Pancreatic
 - Hyperplasia
 - Minimal
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Lung
 - Alveolus
 - Infiltration Cellular
 - TGLs = 5-10]
 - Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Lymphocyte, Moderate
 - Plasma Cell, Moderate
- * Mammary Gland
 - Duct
 - Adenoma
 - Dilation
 - Hyperplasia
 - Minimal
 - Moderate
 - [Adenoma TGLs = 3-20]
 - [Hyperplasia TGLs = 1-9]
- * Nerve Trigeminal
 - Degeneration
 - Mild
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Moderate
- * Ovary
 - Atrophy
 - Moderate
 - Cyst

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1448

TRT#: 4

SEX: Female

DAY ON TEST: 723

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1448

ORGAN AND ACCOUNTABLE SITE STATUS

[Cyst TGLs = 4-16]

* Peripheral Nerve, Sciatic

Degeneration

Mild

* Peripheral Nerve, Tibial

Degeneration

Minimal

* Pituitary Gland

Pars Distalis

Carcinoma

[Carcinoma TGLs = 6-4]

* Spinal Cord, Lumbar

Nerve

Degeneration

Mild

* Spinal Cord, Thoracic

Degeneration

Minimal

* Spleen

Red Pulp

Atrophy

Mild

Pigment

Moderate

* Stomach, Glandular

Cyst

* Thymus

Atrophy

Minimal

Hyperplasia

Epithelial, Minimal

* Thyroid Gland

C Cell

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Carcinoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1449

TRT#: 4

SEX: Female

DAY ON TEST: 740

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1449

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Esophagus |
| * Eye | * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Spleen | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|---------------------------------------|-----------|-----------------------------------|--------------------------|
| * Adrenal Cortex | | Accessory Adrenal Cortical Nodule | |
| | | Degeneration | Cystic, Moderate |
| | | Hyperplasia | Mild |
| | | Hypertrophy | Moderate |
| [Degeneration TGLs = 3-7] | | | |
| * Bone Marrow | | Hypercellularity | Mild |
| * Brain | | Cyst | |
| * Clitoral Gland | Duct | Dilation | Marked |
| | | Inflammation | Chronic Active, Moderate |
| [Dilation TGLs = 5-16] | | | |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | Bile Duct | Cyst | |
| [Cyst TGLs = 6-20] | | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| [Infiltration Cellular TGLs = 4-10] | | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | | Hyperplasia | Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1449

TRT#: 4

SEX: Female

DAY ON TEST: 740

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1449

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|-------------------------------|-------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| Note: Longitudinal section available for evaluation. | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| * Uterus | | Cyst | |
| | | Dilation | Moderate |
| | | Inflammation | Acute, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | | Polyp Stromal | Multiple |
| [Dilation TGLs = 1-16] | | | |
| [Inflammation TGLs = 2-16] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1450

TRT#: 4

SEX: Female

DAY ON TEST: 741

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1450

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Ovary | * Pancreas |
| * Parathyroid Gland | * Salivary Glands | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | | |

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Kidney | Pelvis | Inflammation | Suppurative, Minimal |
| | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Clear Cell Focus | |
| | | Eosinophilic Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 2-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Minimal |
| | | Hyperplasia | Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1450

TRT#: 4

SEX: Female

DAY ON TEST: 741

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1450

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Mild

Hyperplasia

Epithelial, Minimal

* Urinary Bladder

Edema

Moderate

Hemorrhage

Minimal

Inflammation

Acute, Minimal

* Uterus

Cyst

[Cyst TGLs = 1-16]

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1451

TRT#: 4

SEX: Female

DAY ON TEST: 696

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1451

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|------------------------|--------------|----------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| Note: Longitudinal section available for evaluation. | | | |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 1-4] | | |
| * Salivary Glands | Parotid GI | Atrophy | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Pigment | Moderate |
| * Uterus | | Cyst | |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1452

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1452

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Kidney
- * Parathyroid Gland
- * Stomach, Forestomach
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Stomach, Glandular
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Trachea
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Adrenal Medulla
 - Hyperplasia
- * Brain
 - Chor Plexus
- * Clitoral Gland
 - Duct
 - Inflammation
- * Heart
 - [Dilation TGLs = 2-16]
 - Ventricl Rgt
- * Islets, Pancreatic
 - Cardiomyopathy
 - Hyperplasia
- * Liver
 - Basophilic Focus
 - Eosinophilic Focus
 - Mixed Cell Focus
 - [Mixed Cell Focus TGLs = 7,8-20,21]
- * Lung
 - Alveolus
 - Infiltration Cellular
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - Galactoceles
 - Hyperplasia
 - [Fibroadenoma TGLs = 1,3,4-9,21]
 - [Galactoceles TGLs = 5,13-9,20,21]
- * Nerve Trigeminal
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1452

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1452

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|-------------------------------|---------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Cyst | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 12-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| [Hyperplasia TGLs = 6-16] | | | |

Animal Note: TGLs 9,11 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1453

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1453

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Stomach, Glandular
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Thyroid Gland
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea

MISSING

- * Adrenal Medulla
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 Minimal
- * Brain
 - [Compression TGLs = 5-2]
 - Compression
 Mild
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
 Marked
Chronic Active, Minimal
- * Eye
 - [Dilation TGLs = 1,2-16]
 - Retina
 - Lens
 Atrophy
Minimal
Mild
- * Kidney
 - Nephropathy
 Chronicprogr, Minimal
- * Liver
 - Basophilic Focus
 - Eosinophilic Focus
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 4-10]
 - Infiltration Cellular
 Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 Lymphocyte, Minimal
Plasma Cell, Minimal
- * Mammary Gland
 - Duct
 - Dilation
 Mild
- * Nerve Trigeminal
 - Degeneration
 Minimal
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 Moderate
- * Ovary
 - Atrophy
 Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1453

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1453

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 6-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Hyperplasia | Epithelial, Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | | Polyp Stromal | |

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1454

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1454

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea
- * Bone
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Harderian Gland
- * Intestine Small, Duodenum
- * Pancreas
- * Skin
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hyperplasia
 - Vacuolation, Cytoplasmic
 - Cystic, Mild
 - Mild
 - Mild
- [Degeneration TGLs = 14-7]
- * Adrenal Medulla
 - Hyperplasia
 - Pheochromocytoma Benign
- * Bone Marrow
 - Hypercellularity
- * Brain
 - Compression
- [Compression TGLs = 21-2]
- * Clitoral Gland
 - Duct
 - Dilation
- [Dilation TGLs = 3-16]
- * Eye
 - Retina
 - Atrophy
- * Heart
 - Cardiomyopathy
- * Islets, Pancreatic
 - Hyperplasia
- * Kidney
 - Pelvis, Urothelium
 - Hyperplasia
 - Nephropathy
- * Liver
 - Extramedullary Hematopoiesis
 - Bile Duct
 - Hyperplasia
 - Hepatocyte
 - Hypertrophy
 - Hepatocyte
 - Vacuolation, Cytoplasmic
- [Hypertrophy TGLs = 15-12]
- [Vacuolation, Cytoplasmic TGLs = 16-12]
- * Lung
 - Alveolus
 - Infiltration Cellular
- Histiocyte, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1454

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1454

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|--|-------------------------------|-------------------|
| Lymph Node | Iliac, Lymph Sinus | Ectasia | Moderate |
| | Iliac | Erythrophagocytosis | Moderate |
| | [Ectasia TGLs = 18-22] | | |
| | [Erythrophagocytosis TGLs = 19-22] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Marked |
| | | Fibroadenoma | Multiple |
| | | Galactocele | |
| | | Hyperplasia | Minimal |
| Note: Some galactoceles have ruptured and have granulomatous inflammation. | | | |
| | [Fibroadenoma TGLs = 4,6,7-21,23,24] | | |
| | [Galactocele TGLs = 1,2,5,8-9,22,25] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 22-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Cyst | |
| Tissue NOS | Abdominal, Fat | Necrosis | Moderate |
| | [Necrosis TGLs = 11-20] | | |
| * Uterus | Cervix, Epithelium | Hyperplasia | Minimal |
| | | Polyp Stromal | |
| | [Polyp Stromal TGLs = 9,10-16,20,21] | | |

Animal Note: TGLs 17,20 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1454

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1454

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGLs 12,13 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1455

TRT#: 4

SEX: Female

DAY ON TEST: 740

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1455

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Intestine Large, Rectum
- * Liver
- Skeletal Muscle
- * Stomach, Glandular
- * Aorta
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skin
- * Trachea
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Spinal Cord, Cervical
- Trigeminal Ganglion
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Degeneration
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Bone Marrow
 - Hypercellularity
- * Brain
 - Compression
- * Clitoral Gland
 - [Compression TGLs = 5-2]
 - Duct
 - Dilation
 - Inflammation
 - Atrophy
 - Hyperplasia
 - Nephropathy
- * Harderian Gland
 - Atrophy
- * Islets, Pancreatic
 - Hyperplasia
- * Kidney
 - Nephropathy
- * Lung
 - Alveolus
 - Infiltration Cellular
 - Proliferation
 - Galactocele
 - Hyperplasia
- * Lymph Node, Mandibular
 - Plasma Cell, Minimal
- * Mammary Gland
 - Galactocele
 - Hyperplasia
- * Nerve Trigeminal
 - [Galactocele TGLs = 1-9]
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Atrophy
 - Fibrosis
 - Degeneration
- * Ovary
 - Marked
- * Parathyroid Gland
 - Minimal
- * Peripheral Nerve, Sciatic
 - Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1455

TRT#: 4

SEX: Female

DAY ON TEST: 740

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1455

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 6-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Adenoma | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |
| | Cervix | Hyperplasia | Stromal, Moderate |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | | Polyp Stromal | |
| [Hyperplasia TGLs = 4-16] | | | |
| [Hyperplasia TGLs = 2-20] | | | |
| Vagina | | Polyp | Stromal |
| [Polyp TGLs = 3-20] | | | |

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1456

TRT#: 4

SEX: Female

DAY ON TEST: 493

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1456

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Brain
- * Clitoral Gland
- * Esophagus
- * Eye
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Lung
- * Lymph Node, Mesenteric
- * Pancreas
- * Parathyroid Gland
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Salivary Glands
- * Skeletal Muscle
- * Spinal Cord, Cervical
- * Spinal Cord, Thoracic
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea
- * Trigeminal Ganglion
- * Urinary Bladder

OBSERVATIONS

- * Bone Marrow: Hypercellularity, Moderate
- * Harderian Gland: Inflammation, Chronic Active, Minimal
- * Kidney: Renal Tubule, Cyst, Nephropathy, Chronicprogr, Minimal
- * Liver: Hepatocellular Adenoma, Infiltration Cellular, Mixed Cell, Minimal
- * Lymph Node, Mandibular: Hyperplasia, Lymphocyte, Mild
- * Mammary Gland: Duct, Proliferation, Plasma Cell, Mild
- * [Dilation TGLs = 1-9]: Dilation, Mild
- * Nerve Trigeminal: Hyperplasia, Minimal
- * Nose: Olfactory Epi, Accumulation, Hyaline Droplet, Moderate
- * Note: Approximately one-half of Level 3 absent.
- * Ovary: Atrophy, Marked
- * Peripheral Nerve, Sciatic: Degeneration, Minimal
- * Skin: Keratoacanthoma, Minimal
- * [Keratoacanthoma TGLs = 2-20]
- * Spinal Cord, Lumbar: Degeneration, Minimal
- * Spleen: Nerve, Degeneration, Minimal
- * Extramedullary Hematopoiesis, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1456

TRT#: 4

SEX: Female

DAY ON TEST: 493

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1456

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------|-------------|-------------|---------------------|
| * Thymus | | Pigment | Moderate |
| | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Mild |

PRIMARY CAUSE OF DEATH - Skin Keratoacanthoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1457

TRT#: 4

SEX: Female

DAY ON TEST: 741

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1457

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Thyroid Gland
- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Lung
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hypertrophy
 - [Degeneration TGLs = 12,13-7]
- * Bone Marrow
 - Fibrosis
 - Hypercellularity
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Duct
 - [Dilation TGLs = 6,7-16]
- * Eye
 - Retina
- * Kidney
 - Atrophy
 - Nephropathy
 - Basophilic Focus
 - Eosinophilic Focus
 - Mixed Cell Focus
- * Liver
 - Eosinophilic Focus TGLs = 9,10-12,22]
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Hyperplasia
 - Proliferation
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - [Dilation TGLs = 5-9]
 - [Fibroadenoma TGLs = 2,3,4-20,21,22]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1457

TRT#: 4

SEX: Female

DAY ON TEST: 741

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1457

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|-------------------------------|---------------------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |
| | Rete Ovarii | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 14-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |
| | Epithelium | Metaplasia | Squamous, Moderate |
| [Hyperplasia TGLs = 8-16] | | | |

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGL 11 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1458

TRT#: 4

SEX: Female

DAY ON TEST: 675

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1458

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Clitoral Gland
- * Esophagus
- * Eye
- * Harderian Gland
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Liver
- * Lymph Node, Mesenteric
- * Ovary
- * Pancreas
- * Parathyroid Gland
- * Skin
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea
- Trigeminal Ganglion
- * Urinary Bladder
- * Uterus

OBSERVATIONS

- * Brain
[Compression TGLs = 4-2]
Compression Mild
- * Heart
Cardiomyopathy Minimal
- * Kidney
Nephropathy Chronicprogr, Minimal
- * Lung
Alveolus Infiltration Cellular Histiocyte, Minimal
- * Lymph Node, Mandibular
Hyperplasia Lymphocyte, Minimal
- * Mammary Gland
[Hyperplasia TGLs = 1-9.1]
Proliferation Plasma Cell, Mild
- * Nerve Trigeminal
Hyperplasia Marked
- * Nose
Degeneration Moderate
- * Peripheral Nerve, Sciatic
Accumulation, Hyaline Droplet Moderate
- * Peripheral Nerve, Tibial
Degeneration Minimal
- * Pituitary Gland
Degeneration Mild
- [Adenoma TGLs = 5-4]
Pars Distalis Adenoma
- * Salivary Glands
Degeneration Minimal
- Skeletal Muscle
Degeneration Minimal
- * Spinal Cord, Lumbar
Degeneration Minimal
- Nerve
Degeneration Mild
- * Spinal Cord, Thoracic
Degeneration Minimal
- * Spleen
Red Pulp Atrophy Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1458

TRT#: 4

SEX: Female

DAY ON TEST: 675

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1458

ORGAN AND ACCOUNTABLE SITE STATUS

| | | |
|------------------------|-------------|---------------------|
| * Stomach, Forestomach | Pigment | Marked |
| | Edema | Moderate |
| | Ulcer | Moderate |
| * Thymus | Atrophy | Mild |
| | Hyperplasia | Epithelial, Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 2,3,6,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1460

TRT#: 4

SEX: Female

DAY ON TEST: 741

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1460

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Uterus
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- * Trachea
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Ovary
- Skeletal Muscle
- * Stomach, Glandular
- Trigeminal Ganglion
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Thymus
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 Mild
Minimal
Minimal
- * Adrenal Medulla
 - Hyperplasia
 Minimal
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
 - [Compression TGLs = 6-2]
 - Compression
 Mild
- * Clitoral Gland
 - Duct
 - [Dilation TGLs = 4-16]
 - Dilation
 - Inflammation
 Marked
Chronic Active, Mild
- * Heart
 - Cardiomyopathy
 Minimal
- * Kidney
 - Nephropathy
 Chronicprogr, Minimal
- * Liver
 - Eosinophilic Focus
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 5-10]
 - Infiltration Cellular
 - Inflammation
 Histiocyte, Mild
Granulomatous, Minimal
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 Lymphocyte, Minimal
Plasma Cell, Minimal
- * Mammary Gland
 - Adenoma
 - Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1460

TRT#: 4

SEX: Female

DAY ON TEST: 741

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1460

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------------|---------------|-------------------------------|----------|
| | | Hyperplasia | Moderate |
| [Adenoma TGLs = 3-21] | | | |
| [Fibroadenoma TGLs = 1-20] | | | |
| [Hyperplasia TGLs = 2-9.1] | | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 7-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1461

TRT#: 4

SEX: Female

DAY ON TEST: 740

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1461

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Longitudinal section available for evaluation.

| | | | |
|-------------------------|---------------|------------------------------|---------------------|
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | | Polyp Stromal | Multiple |

[Polyp Stromal TGLs = 3,4-16]

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1462

TRT#: 4

SEX: Female

DAY ON TEST: 744

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1462

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Liver | * Lung |
| * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Stomach, Glandular | * Thyroid Gland | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|-----------------------------|---------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Minimal |
| * Clitoral Gland | Duct | Dilation | Minimal |
| * Eye | Retina | Atrophy | Minimal |
| * Harderian Gland | | Atrophy | Minimal |
| | | Inflammation | Chronic, Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |
| | | Cyst | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Mild |
| [Hyperplasia TGLs = 2-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1462

TRT#: 4

SEX: Female

DAY ON TEST: 744

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1462

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------|-------------|---------------|---------------------|
| * Thymus | | Pigment | Moderate |
| | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | | Polyp Stromal | |

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1463

TRT#: 4

SEX: Female

DAY ON TEST: 737

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1463

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Esophagus |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Pancreas | * Salivary Glands | Skeletal Muscle |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

MISSING

- * Parathyroid Gland

OBSERVATIONS

- | | | | |
|--------------------------|---|-------------------------------|-------------------------|
| * Adrenal Medulla | | Pheochromocytoma Malignant | |
| | [Pheochromocytoma Malignant TGLs = 3-7] | | |
| * Bone Marrow | | Hypercellularity | Minimal |
| * Brain | | Glioma Malignant | |
| * Clitoral Gland | Duct | Dilation | Mild |
| | Duct | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| * Eye | Retina | Atrophy | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lung | | Congestion | Minimal |
| | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Moderate |
| * Mammary Gland | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 1-20] | Hyperplasia | Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1463

TRT#: 4

SEX: Female

DAY ON TEST: 737

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1463

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Ovary | | Cyst | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| [Hyperplasia TGLs = 4-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | | Dilation | Moderate |
| [Dilation TGLs = 2-16] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1465

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1465

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea
- * Bone
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone Marrow
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Liver
- * Parathyroid Gland
- * Skin
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Degeneration
 - Vacuolation, Cytoplasmic
 - Hyperplasia
 - Cystic, Minimal
 - Minimal
 - Mild
- * Adrenal Medulla
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
 - Mild
 - Chronic Active, Minimal
- [Dilation TGLs = 2-16]
- * Kidney
 - Nephropathy
 - Infiltration Cellular
 - Chronicprogr, Minimal
 - Histiocyte, Moderate
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 3-10]
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - Hyperplasia
 - Minimal
 - Minimal
- [Fibroadenoma TGLs = 1-20]
- * Nerve Trigeminal
 - Degeneration
 - Mild
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Mild
- * Ovary
 - Atrophy
 - Marked
 - Cyst
- * Peripheral Nerve, Sciatic
 - Degeneration
 - Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1465

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1465

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|-------------|------------------------------|----------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Cyst | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Mild |

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1466

TRT#: 4

SEX: Female

DAY ON TEST: 578

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1466

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|----------------|------------------------------|---------------------|
| * Pituitary Gland [Adenoma TGLs = 6-4] | Pars Distalis | Adenoma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Adenoma | |
| | C Cell | Hyperplasia | Marked |
| Tissue NOS [Necrosis TGLs = 2-20.1] | Abdominal, Fat | Necrosis | Mild |
| * Uterus [Hyperplasia TGLs = 3-16] | Endometrium | Hyperplasia | Cystic, Mild |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1467

TRT#: 4

SEX: Female

DAY ON TEST: 579

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1467

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Spinal Cord, Lumbar |
| * Stomach, Glandular | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- * Thymus

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-----------------------------------|----------------------|
| * Adrenal Cortex | | Accessory Adrenal Cortical Nodule | |
| | | Hypertrophy | Minimal |
| * Bone Marrow | | Hypercellularity | Marked |
| * Clitoral Gland | Duct | Dilation | Moderate |
| * Kidney | Pelvis | Inflammation | Suppurative, Minimal |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Infiltration Cellular | Mixed Cell, Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 2-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Minimal |
| | [Fibroadenoma TGLs = 1-20] | Fibroadenoma | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| | Note: Level 3 largely absent. | | |
| * Ovary | | Atrophy | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1467

TRT#: 4

SEX: Female

DAY ON TEST: 579

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1467

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|-------------|------------------------------|-------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | | Inflammation | Suppurative, Mild |
| | Epithelium | Metaplasia | Squamous, Mild |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1468

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1468

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|----------------------|
| * Nerve Trigeminal | | Hyperplasia | Mild |
| * Nose | Olfactory Epi | Degeneration | Moderate |
| * Ovary | | Accumulation, Hyaline Droplet | Moderate |
| | | Atrophy | Marked |
| | Rete Ovarii | Hyperplasia | Minimal |
| * Parathyroid Gland | | Fibrosis | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 7-4] | | |
| * Salivary Glands | Parotid GI | Atrophy | Marked |
| Skeletal Muscle | | Degeneration | Minimal |
| * Skin | | Hyperkeratosis | Minimal |
| | Note: Hyperkeratosis and inflammation affecting eyelid. | | |
| | [Hyperkeratosis TGLs = 2-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | White Pulp | Atrophy | Minimal |
| | Red Pulp | Atrophy | Moderate |
| | | Pigment | Marked |
| | [Atrophy TGLs = 10-12] | | |
| * Stomach, Forestomach | | Fibrosis | Mild |
| | Epithelium | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Mild |
| * Thyroid Gland | C Cell | Adenoma | |
| | C Cell | Hyperplasia | Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | | Inflammation | Suppurative, Minimal |

Animal Note: TGLs 1,9 = NST (No Section Taken)

Animal Note: TGL 5 = NCL (No Corresponding Lesion) Tissue not available for evaluation.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1469

TRT#: 4

SEX: Female

DAY ON TEST: 711

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1469

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skeletal Muscle
- * Trachea
- * Aorta
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Skin
- * Urinary Bladder
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Stomach, Forestomach
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Glandular

MISSING

- * Clitoral Gland
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - [Degeneration TGLs = 1,2-7]
- * Bone Marrow
- * Eye
 - Lens
- * Heart
- * Kidney
- * Liver
 - Degeneration
 - Hypertrophy
 - Hypercellularity
 - Cataract
 - Cardiomyopathy
 - Nephropathy
 - Eosinophilic Focus
 - Extramedullary Hematopoiesis
 - Mixed Cell Focus
- Note: Intestinal metaplasia of extrahepatic bile duct epithelium within region of fibrosis adjacent to duodenum.
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Fibroadenoma
- * Mammary Gland
 - [Fibroadenoma TGLs = 7-20]
- * Nerve Trigeminal
- * Nose
 - Olfactory Epi
- * Ovary
 - Degeneration
 - Accumulation, Hyaline Droplet
 - Atrophy
 - Cyst
- * Pancreas
 - Bursa
 - Periductal
 - Dilation
 - Cholangiofibrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1469

TRT#: 4

SEX: Female

DAY ON TEST: 711

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1469

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|------------------------------|---------------------|
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Intermed | Cyst | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | [Extramedullary Hematopoiesis TGLs = 3-12] | | |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |
| * Uterus | | Dilation | Moderate |
| | Endometrium | Hyperplasia | Cystic, Mild |
| | | Infiltration Cellular | Plasma Cell, Mild |
| | [Dilation TGLs = 8-16] | | |
| | [Infiltration Cellular TGLs = 9-16] | | |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGLs 4,5 = NCL (No Corresponding Lesion)

Animal Note: TGL 6 = NST (No Section Taken)

Animal Note: TGL 10 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1470

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1470

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | | Angiectasis | Mild |
| | Pars Distalis | Hyperplasia | Mild |
| Note: Cysts contain hemorrhage. | | | |
| [Angiectasis TGLs = 8-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1471

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1471

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Skin
- Trigeminal Ganglion
- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Glandular
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- Skeletal Muscle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hypertrophy
 - Hypercellularity
 - Cystic, Moderate
 - Mild
 - Moderate
- * Bone Marrow
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Duct
 - [Dilation TGLs = 4,5-16]
 - Dilation
 - Inflammation
 - Marked
 - Chronic Active, Mild
- * Eye
 - Retina
 - Atrophy
 - Minimal
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Extramedullary Hematopoiesis
 - Minimal
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 3-10]
 - Infiltration Cellular
 - Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Lymphocyte, Minimal
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - Plasma Cell, Mild
 - Minimal
 - [Fibroadenoma TGLs = 2-20]
- * Nerve Trigeminal
 - Degeneration
 - Minimal
- * Nose
 - Respirat Epith
 - Accumulation, Hyaline Droplet
 - Minimal
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Moderate
- * Ovary
 - Atrophy
 - Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1471

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1471

ORGAN AND ACCOUNTABLE SITE STATUS

Cyst

[Cyst TGLs = 1-16]

| | | | |
|-----------------------------|------------|------------------------------|-------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Uterus | | Adenomyosis | Moderate |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | | Polyp | Glandular |

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1473

TRT#: 4

SEX: Female

DAY ON TEST: 737

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1473

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Liver | * Lymph Node, Mesenteric |
| * Pancreas | * Salivary Glands | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|-------------------------------|--------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Bone Marrow | | Hypercellularity | Minimal |
| * Clitoral Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Moderate |
| | [Dilation TGLs = 1-16] | | |
| | [Inflammation TGLs = 2-16] | | |
| * Harderian Gland | | Atrophy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 6-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Mild |
| | | Fibroadenoma | |
| | | Galactocele | |
| | | Hyperplasia | Minimal |
| | [Fibroadenoma TGLs = 3-20] | | |
| | [Galactocele TGLs = 4-21] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |
| | | Cyst | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1473

TRT#: 4

SEX: Female

DAY ON TEST: 737

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1473

ORGAN AND ACCOUNTABLE SITE STATUS

[Cyst TGLs = 7,8-16]

| | | | |
|--|---------------|------------------------------|---------------------|
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| [Hyperplasia TGLs = 9-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |
| | Epithelium | Metaplasia | Squamous, Minimal |
| [Hyperplasia TGLs = 5-16] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1474

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1474

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Harderian Gland
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Heart
- * Intestine Small, Duodenum
- * Salivary Glands
- * Stomach, Glandular
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- Skeletal Muscle
- * Trachea
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Skin
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex [Hypertrophy TGLs = 8-7] Hypertrophy Minimal
- * Bone Marrow Hypercellularity Moderate
- * Brain [Glioma Malignant TGLs = 11-1,2] Glioma Malignant
- * Clitoral Gland Duct [Dilation TGLs = 4,5-16] Dilation Moderate
- * Eye Retina Atrophy Minimal
- * Islets, Pancreatic [Adenoma TGLs = 14-6] Adenoma
- * Kidney Nephropathy Chronicprogr, Minimal
- * Liver Basophilic Focus
- * Lung Alveolus [Infiltration Cellular TGLs = 10-10] Infiltration Cellular Histiocyte, Minimal
- * Lymph Node, Mandibular Hyperplasia Lymphocyte, Minimal
- * Mammary Gland Proliferation Plasma Cell, Minimal
- Duct Adenocarcinoma Mild
- [Adenocarcinoma TGLs = 2-21]
- [Dilation TGLs = 3-9]
- [Fibroadenoma TGLs = 1-20]
- * Nerve Trigeminal Degeneration Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1474

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1474

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|------------------------|---|--------------------------------|
| * Nose | Olfactory Epi Nerve | Accumulation, Hyaline Droplet Degeneration | Marked Moderate |
| * Ovary | | Atrophy | Marked |
| * Pancreas | Acinus | Atrophy | Minimal |
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 13-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis Pigment | Moderate Minimal |
| * Thymus | | Atrophy Hyperplasia | Minimal Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Uterus | Endometrium | Hyperplasia Polyp Stromal | Cystic, Minimal |
| [Polyp Stromal TGLs = 7-16] | | | |

Animal Note: TGLs 6,9,12 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1475

TRT#: 4

SEX: Female

DAY ON TEST: 674

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1475

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- Skeletal Muscle
- * Thymus
- * Urinary Bladder
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Thyroid Gland
- * Uterus
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Liver
- * Parathyroid Gland
- * Stomach, Forestomach
- * Trachea
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Glandular
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Brain
- * Clitoral Gland
- * Harderian Gland
- * Kidney
- * Lung
- [Infiltration Cellular TGLs = 4-10]
- * Lymph Node, Mandibular
- * Mammary Gland
- [Dilation TGLs = 1-9]
- * Nose
- Note: Approximately two-thirds of Level 3 available for evaluation.
- * Ovary
- [Cyst TGLs = 2-16]
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- [Adenoma TGLs = 3-4]
- * Spinal Cord, Cervical
- Duct
- Alveolus
- Duct
- Olfactory Epi
- Pars Distalis
- Hyperplasia
- Compression
- Dilation
- Inflammation
- Nephropathy
- Infiltration Cellular
- Proliferation
- Dilation
- Hyperplasia
- Accumulation, Hyaline Droplet
- Atrophy
- Cyst
- Degeneration
- Degeneration
- Adenoma
- Degeneration
- Minimal
- Mild
- Moderate
- Chronic Active, Minimal
- Chronicprogr, Minimal
- Histiocyte, Minimal
- Plasma Cell, Mild
- Mild
- Mild
- Marked
- Marked
- Minimal
- Minimal
- Minimal
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1475

TRT#: 4

SEX: Female

DAY ON TEST: 674

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1475

ORGAN AND ACCOUNTABLE SITE STATUS

* Spinal Cord, Lumbar

Nerve

Degeneration

Mild

* Spinal Cord, Thoracic

Degeneration

Minimal

* Spleen

Pigment

Moderate

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1476

TRT#: 4

SEX: Female

DAY ON TEST: 696

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1476

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Clitoral Gland
- * Esophagus
- * Eye
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Ileum
- * Islets, Pancreatic
- * Lymph Node, Mandibular
- * Lymph Node, Mesenteric
- * Pancreas
- * Parathyroid Gland
- * Salivary Glands
- * Skeletal Muscle
- * Skin
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea
- * Urinary Bladder

MISSING

Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Duodenum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Bone Marrow
 - Fibrosis
 - Hypercellularity
 - Minimal
- * Brain
 - Compression
 - Mild
- * Harderian Gland
 - Inflammation
 - Granulomatous, Minimal
- * Heart
 - Cardiomyopathy
 - Minimal
- * Kidney
 - Artery
 - Mineral
 - Minimal
- * Liver
 - Bile Duct
 - Nephropathy
 - Chronicprogr, Minimal
- * Lung
 - Alveolus
 - Cyst
 - Congestion
 - Mild
 - Infiltration Cellular
 - Histiocyte, Moderate
- * Mammary Gland
 - [Infiltration Cellular TGLs = 1-10]
 - Duct
 - Dilation
 - Mild
 - Fibroadenoma
 - Galactocele
 - Hyperplasia
 - Mild
- * Nerve Trigeminal
 - [Fibroadenoma TGLs = 4-20]
 - Degeneration
 - Mild
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1476

TRT#: 4

SEX: Female

DAY ON TEST: 696

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1476

ORGAN AND ACCOUNTABLE SITE STATUS

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

Note: The majority of Level 3 unavailable for evaluation.

* Ovary

Atrophy

Moderate

* Peripheral Nerve, Sciatic

Degeneration

Mild

* Peripheral Nerve, Tibial

Degeneration

Minimal

* Pituitary Gland

Pars Distalis

Adenoma

[Adenoma TGLs = 2-4]

* Spinal Cord, Cervical

Degeneration

Minimal

* Spinal Cord, Lumbar

Nerve

Degeneration

Mild

* Spinal Cord, Thoracic

Degeneration

Minimal

* Spleen

Red Pulp

Atrophy

Mild

Pigment

Marked

* Thymus

Atrophy

Mild

Hyperplasia

Epithelial, Minimal

* Uterus

Endometrium

Hyperplasia

Cystic, Minimal

Inflammation

Suppurative, Minimal

Epithelium

Metaplasia

Squamous, Minimal

[Inflammation TGLs = 3-16]

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1477

TRT#: 4

SEX: Female

DAY ON TEST: 741

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1477

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------------|---------------|------------------------------|------------------------|
| * Pancreas | Periductal | Cholangiofibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 8-4] | | | |
| * Skin | Subcut Tiss | Inflammation | Chronic Active, Marked |
| [Inflammation TGLs = 2-21] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Moderate |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGL 9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1478

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1478

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Nerve Trigeminal | * Salivary Glands | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Stomach, Glandular | * Trachea | * Urinary Bladder |

MISSING

- * Parathyroid Gland

OBSERVATIONS

- | | | | |
|---|---------------|--|----------------------------------|
| * Adrenal Cortex | | Accessory Adrenal Cortical Nodule Hypertrophy | Minimal |
| * Adren Medulla | | | |
| Note: One of pair available for evaluation. | | | |
| * Bone Marrow | | Hypercellularity | Minimal |
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Clitoral Gland | Duct | Dilation Inflammation | Moderate Chronic Active, Mild |
| [Dilation TGLs = 3-16] | | | |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Basophilic Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Moderate |
| [Infiltration Cellular TGLs = 2-10] | | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation Fibroadenoma | Minimal |
| [Fibroadenoma TGLs = 1-20] | | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy Cyst | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1478

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1478

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|----------------------|
| [Cyst TGLs = 5-16] | Rete Ovarii | Hyperplasia | Minimal |
| * Pancreas | Acinus | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 4-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Basal Cell, Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Ectopic Parathyroid Gland | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Adenoma | |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | | Inflammation | Suppurative, Minimal |
| | Epithelium | Metaplasia | Squamous, Mild |
| [Hyperplasia TGLs = 6-20] | | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1479

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1479

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

MISSING

- * Nerve Trigeminal

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Minimal |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Clitoral Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| | [Dilation TGLs = 1-16] | | |
| * Harderian Gland | | Atrophy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Eosinophilic Focus | |
| * Lung | Epithlm Alvlus | Hyperplasia | Minimal |
| | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 3-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Moderate |
| | | Proliferation | Plasma Cell, Moderate |
| * Mammary Gland | | Fibroadenoma | |
| | | Hyperplasia | Minimal |
| | [Fibroadenoma TGLs = 2-20] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |
| | Rete Ovarii | Hyperplasia | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1479

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1479

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Carcinoma | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1480

TRT#: 4

SEX: Female

DAY ON TEST: 649

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1480

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skin
- * Thyroid Gland
- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Spinal Cord, Cervical
- Trigeminal Ganglion
- * Bone
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- Skeletal Muscle
- * Stomach, Glandular

MISSING

- * Parathyroid Gland

AUTO PRECLUDES DIAG.

- * Eye
- * Trachea
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Brain
- * Clitoral Gland
- * Heart
- * Kidney
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 1-10]
- * Lymph Node, Mandibular
- [Congestion TGLs = 6-9]
- * Mammary Gland
- Degeneration
- Hypertrophy
- Hypercellularity
- Hemorrhage
- Inflammation
- Schwannoma Malignant
- Nephropathy
- Hyperplasia
- Congestion
- Infiltration Cellular
- Congestion
- Hyperplasia
- Proliferation
- Dilation
- Fibroadenoma
- Hyperplasia
- Cystic, Minimal
- Mild
- Moderate
- Minimal
- Chronic Active, Minimal
- Chronicprogr, Minimal
- Minimal
- Mild
- Histiocyte, Mild
- Mild
- Lymphocyte, Moderate
- Plasma Cell, Mild
- Mild
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1480

TRT#: 4

SEX: Female

DAY ON TEST: 649

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1480

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroadenoma TGLs = 3-20]

| | | | |
|---|---------------|-------------------------------|--------------------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| Note: Approximately one-half of Level 3 available for evaluation. | | | |
| * Ovary | | Atrophy | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 4-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| Tissue NOS | | Cyst | |
| Note: Tissue lined on both the exterior and interior surfaces with squamous epithelium with abundant keratin debris within lumen. | | | |
| [Cyst TGLs = 2-15] | | | |
| * Uterus | Epithelium | Metaplasia | Squamous, Moderate |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 5,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1481

TRT#: 4

SEX: Female

DAY ON TEST: 741

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1481

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|-------------|------------------------------|---------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | | Polyp | Glandular |

Animal Note: TGLs 3,4,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1482

TRT#: 4

SEX: Female

DAY ON TEST: 339

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1482

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Mammary Gland Adenocarcinoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1483

TRT#: 4

SEX: Female

DAY ON TEST: 740

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1483

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Stomach, Forestomach
- * Uterus
- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Ovary
- Skeletal Muscle
- * Stomach, Glandular
- * Brain
- * Intestine Large, Rectum
- * Liver
- * Pancreas
- * Skin
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Clitoral Gland
- * Esophagus
- * Eye
- * Heart
- * Islets, Pancreatic
- * Kidney
- * Lung
- Duct
- Retina
- Bronchus
- Alveolus
- [Infiltration Cellular TGLs = 2-10]
- [Inflammation TGLs = 2-10]
- * Mammary Gland
- * Nerve Trigeminal
- * Nose
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Salivary Glands
- * Spinal Cord, Lumbar
- Hypertrophy
- Hyperplasia
- Dilation
- Inflammation
- Dilation
- Atrophy
- Cardiomyopathy
- Hyperplasia
- Nephropathy
- Foreign Body
- Hyperplasia
- Infiltration Cellular
- Inflammation
- Minimal
- Minimal
- Minimal
- Chronic Active, Mild
- Mild
- Minimal
- Minimal
- Chronicprogr, Minimal
- Moderate
- Histiocyte, Minimal
- Granulomatous, Mild
- Hyperplasia
- Degeneration
- Accumulation, Hyaline Droplet
- Degeneration
- Degeneration
- Atrophy
- Degeneration
- Minimal
- Moderate
- Mild
- Minimal
- Mild
- Minimal
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1483

TRT#: 4

SEX: Female

DAY ON TEST: 740

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1483

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|------------|------------------------------|-------------------------|
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Moderate |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Adenoma | |
| [Adenoma TGLs = 3-8] | | | |
| * Trachea | Epithelium | Hyperplasia | Mild |
| | | Inflammation | Chronic Active, Minimal |
| | Epithelium | Metaplasia | Squamous, Mild |

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1485

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1485

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Pancreas | * Salivary Glands | Skeletal Muscle |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Trachea |
| * Urinary Bladder | * Uterus | | |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|-----------------------------|--------------------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Minimal |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Clitoral Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 2-16] | | |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | Bile Duct | Cyst | |
| | [Cyst TGLs = 6-12] | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| * Mammary Gland | | Hyperplasia | Moderate |
| Mesentery | | Necrosis | Mild |
| | [Necrosis TGLs = 4-21] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Moderate |
| | | Cyst | |
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1485

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1485

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---------------|------------------------------|---------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 5-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Tissue NOS | Fat | Necrosis | Mild |
| [Necrosis TGLs = 3-20] | | | |

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1486

TRT#: 4

SEX: Female

DAY ON TEST: 614

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1486

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Approximately two-thirds of Level 3 available for evaluation.

| | | | |
|-----------------------------|---------------|------------------------------|------------------|
| * Ovary | | Atrophy | Moderate |
| | | Cyst | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Mild |
| * Uterus | Epithelium | Metaplasia | Squamous, Marked |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1487

TRT#: 4

SEX: Female

DAY ON TEST: 657

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1487

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Harderian Gland
- * Islets, Pancreatic
- * Skin
- * Thyroid Gland
- * Aorta
- * Intestine Large, Colon
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Trachea
- * Bone
- * Intestine Large, Rectum
- * Parathyroid Gland
- * Spinal Cord, Thoracic
- * Urinary Bladder
- * Esophagus
- * Intestine Small, Ileum
- Skeletal Muscle
- * Stomach, Glandular

AUTO PRECLUDES DIAG.

- * Intestine Small, Duodenum
- * Intestine Small, Jejunum

OBSERVATIONS

- | | | | |
|--|--|---|---|
| <ul style="list-style-type: none"> * Adrenal Cortex * Bone Marrow * Brain * Clitoral Gland [Dilation TGLs = 7-16] * Eye * Heart * Intestine Large, Cecum * Kidney [Nephropathy TGLs = 4,5-13] * Liver * Lung [Leukemia Mononuclear TGLs = 2-10] * Lymph Node, Mandibular * Mammary Gland | <ul style="list-style-type: none"> Neuron Duct Retina Artery Duct | <ul style="list-style-type: none"> Leukemia Mononuclear Hypercellularity Edema Necrosis Dilation Atrophy Cardiomyopathy Leukemia Mononuclear Inflammation Nephropathy Leukemia Mononuclear Hemorrhage Leukemia Mononuclear Hyperplasia Proliferation Dilation Galactocele Hyperplasia | <ul style="list-style-type: none"> Marked Mild Minimal Moderate Minimal Mild Chronic Active, Mild Chronicprogr, Marked Minimal Minimal Lymphocyte, Minimal Plasma Cell, Mild Moderate Minimal |
|--|--|---|---|

Note: Galactocele ruptured with granulomatous inflammation.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1487

TRT#: 4

SEX: Female

DAY ON TEST: 657

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1487

ORGAN AND ACCOUNTABLE SITE STATUS

[Galactocoele TGLs = 6,8-9,20]

| | | | |
|-----------------------------|--------------------------------------|-------------------------------|----------------------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Moderate |
| | Bursa | Dilation | Mild |
| | [Dilation TGLs = 1-16] | | |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| | | Leukemia Mononuclear | |
| * Peripheral Nerve, Sciatic | | Leukemia Mononuclear | |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | | Leukemia Mononuclear | |
| | [Adenoma TGLs = 9-4] | | |
| * Salivary Glands | | Leukemia Mononuclear | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Leukemia Mononuclear | |
| | [Leukemia Mononuclear TGLs = 3-12] | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Mild |
| | | Ulcer | Minimal |
| * Thymus | | Atrophy | Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Moderate |
| | Cervix | Thrombus | Moderate |
| | [Thrombus TGLs = 10-21RT] | | |

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

CONTRIBUTORY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1489

TRT#: 4

SEX: Female

DAY ON TEST: 741

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1489

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Harderian Gland
- * Intestine Small, Duodenum
- * Pancreas
- * Spinal Cord, Cervical
- * Trachea
- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- Skeletal Muscle
- * Stomach, Forestomach
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skin
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - [Degeneration TGLs = 2-7]
- * Bone
 - Fibrous Osteodystrophy
- * Brain
 - Compression
- * Clitoral Gland
 - Duct
 - Note: One of pair available for evaluation.
- * Eye
 - Antr Chamber
 - Cornea
- * Heart
 - Endocardium
- * Kidney
 - Renal Tubule
 - [Nephropathy TGLs = 9-13]
- * Liver
 - Bile Duct
 - Hepatocyte
 - [Hepatocellular Adenoma TGLs = 10-12]
 - [Vacuolation, Cytoplasmic TGLs = 12-12]
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 7-10]
- * Lymph Node, Mandibular
 - Proliferation
- * Lymph Node, Mesenteric
 - Erythrophagocytosis

Degeneration Cystic, Moderate
Necrosis Moderate

Fibrous Osteodystrophy Mild
Compression Mild
Dilation Moderate

Exudate Mild
Inflammation Acute, Minimal
Hyperplasia Schwann Cell, Moderate
Necrosis Mild
Nephropathy Chronicprogr, Moderate

Cyst
Hepatocellular Adenoma
Vacuolation, Cytoplasmic Mild

Carcinoma Metastatic (Thyroid Gland)
Infiltration Cellular Histiocyte, Mild

Proliferation Plasma Cell, Moderate
Erythrophagocytosis Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1489

TRT#: 4

SEX: Female

DAY ON TEST: 741

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1489

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-----------------------------------|---|-------------------|
| * Mammary Gland | Duct | Dilation Fibroadenoma Galactocele | Mild Multiple |
| | [Fibroadenoma TGLs = 1,5-20,21] | | |
| | [Galactocele TGLs = 6-9] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 11-4] | | |
| * Salivary Glands | Parotid GI | Atrophy | Marked |
| | Duct, Parotid GI | Dilation | Mild |
| | Parotid GI | Inflammation | Acute, Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Mild |
| | | Pigment | Moderate |
| | [Atrophy TGLs = 8-12] | | |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Carcinoma | |
| | [Carcinoma TGLs = 3,4-8] | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |
| | Epithelium | Metaplasia | Squamous, Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1490

TRT#: 4

SEX: Female

DAY ON TEST: 614

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1490

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Trachea
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Stomach, Forestomach
- * Trigeminal Ganglion

MISSING

- * Nerve Trigeminal

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hyperplasia
 - Hypertrophy
 - Hypercellularity
 - Inflammation
 - Nephropathy
 - Hyperplasia
 - Infiltration Cellular
 - Cystic, Mild
 - Mild
 - Moderate
 - Moderate
 - Chronic Active, Minimal
 - Chronicprogr, Minimal
 - Minimal
 - Histiocyte, Mild
- * Bone Marrow
- * Clitoral Gland
- * Kidney
- * Liver
 - Bile Duct
 - Alveolus
 - Proliferation
 - Dilation
 - Fibroadenoma
 - Hyperplasia
- * Lung
 - [Infiltration Cellular TGLs = 4-10]
 - Infiltration Cellular
 - TGLs = 1,2-21,20]
 - Plasma Cell, Mild
 - Minimal
 - Multiple
 - Minimal
- * Lymph Node, Mandibular
- * Mammary Gland
 - Duct
 - Hyperplasia
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Ovary
 - Atrophy
 - Degeneration
 - Degeneration
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration
- * Pituitary Gland
 - Pars Distalis
 - Hyperplasia
 - Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1490

TRT#: 4

SEX: Female

DAY ON TEST: 614

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1490

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------|-------------|------------------------------|-------------------|
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1491

TRT#: 4

SEX: Female

DAY ON TEST: 570

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1491

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Aorta | * Bone | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Kidney | * Lymph Node, Mesenteric | * Ovary | * Parathyroid Gland |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Spinal Cord, Thoracic |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | * Uterus | |

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Bone Marrow | | Hypercellularity | Moderate |
| * Brain | Meninges | Granular Cell Tumor Benign | |
| * Clitoral Gland | Duct | Dilation | Marked |
| | | Inflammation | Suppurative, Mild |
| * Heart | | Cardiomyopathy | Minimal |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 2-10] | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 1-20] | Hyperplasia | Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | Periductal | Cholangiofibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Salivary Glands | Parotid GI | Inflammation | Suppurative, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1491

TRT#: 4

SEX: Female

DAY ON TEST: 570

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1491

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------|-------|------------------------------|---------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1492

TRT#: 4

SEX: Female

DAY ON TEST: 744

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1492

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|-------------------------------|---------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Adenoma | |
| | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGLs 4,6 = NCL (No Corresponding Lesion)

Animal Note: TGL 9 = NCL (No Corresponding Lesion) Tissue unavailable for evaluation.

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1493

TRT#: 4

SEX: Female

DAY ON TEST: 605

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1493

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Liver
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Trachea
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Stomach, Forestomach
- * Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Mild
- * Brain
 - Hypertrophy
 - Minimal
 - Compression
 - Mild
 - Pineal Gland
 - Pinealoma
- Note: Insufficient olfactory bulbs available for evaluation.
 - [Pinealoma TGLs = 5-2]
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
 - Chronic Active, Moderate
- * Heart
 - Cardiomyopathy
 - Minimal
- * Kidney
 - Nephropathy
 - Chronicprogr, Mild
- * Lung
 - Alveolus
 - Infiltration Cellular TGLs = 3-10]
 - Infiltration Cellular
 - Histiocyte, Mild
- * Lymph Node, Mandibular
 - Hyperplasia
 - Lymphocyte, Moderate
 - Proliferation
 - Plasma Cell, Moderate
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - [Dilation TGLs = 6-9]
 - [Fibroadenoma TGLs = 4-20]
- * Nerve Trigeminal
 - Degeneration
 - Mild
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Moderate
- * Ovary
 - Atrophy
 - Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1493

TRT#: 4

SEX: Female

DAY ON TEST: 605

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1493

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | Rete Ovarii | Hyperplasia | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Degeneration | Minimal |
| | Pars Distalis | Adenoma | |
| | | Cyst | |
| [Adenoma TGLs = 1-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | | Polyp Stromal | |

PRIMARY CAUSE OF DEATH - Brain Pineal Gland Pinealoma

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1494

TRT#: 4

SEX: Female

DAY ON TEST: 647

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1494

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Esophagus
- * Eye
- * Harderian Gland
- * Heart
- * Intestine Large, Colon
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Nerve Trigeminal
- * Pancreas
- * Peripheral Nerve, Tibial
- * Salivary Glands
- * Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Spinal Cord, Lumbar
- * Spinal Cord, Thoracic
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea
- * Trigeminal Ganglion
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Large, Rectum

OBSERVATIONS

- * Brain
- Compression
- Mild
- * Clitoral Gland
- Duct
- Dilation
- Mild
- Inflammation
- Chronic Active, Mild
- Note: One of pair available for evaluation.
- [Inflammation TGLs = 6-16]
- * Islets, Pancreatic
- Adenoma
- * Kidney
- Nephropathy
- Chronicprogr, Minimal
- * Liver
- Periductal
- Cholangiofibrosis
- Mild
- * Lung
- Congestion
- Mild
- Inflammation
- Chronic Active, Minimal
- [Congestion TGLs = 7-10]
- * Lymph Node, Mandibular
- Proliferation
- Plasma Cell, Minimal
- * Mammary Gland
- Adenoma
- Dilation
- Marked
- Fibroadenoma
- Multiple
- Galactocele
- Hyperplasia
- Moderate
- [Fibroadenoma TGLs = 1,2,3,4-9,20,21,22]
- * Nose
- Olfactory Epi
- Accumulation, Hyaline Droplet
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1494

TRT#: 4

SEX: Female

DAY ON TEST: 647

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1494

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Approximately two-thirds of Level 2 available for evaluation.

| | | | |
|-----------------------------|------------------------|--------------|---------------------|
| * Ovary | | Atrophy | Moderate |
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 5-4] | | |
| * Spleen | Red Pulp | Atrophy | Moderate |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Moderate |
| | | Hemorrhage | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Mild |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1495

TRT#: 4

SEX: Female

DAY ON TEST: 724

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1495

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Glandular
- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- Skeletal Muscle
- * Trachea
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skin
- Trigeminal Ganglion
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Stomach, Forestomach
- * Urinary Bladder

MISSING

- * Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex Hyperplasia
Hypertrophy Mild
Minimal
- * Bone Marrow Hypercellularity Marked
- * Brain Compression Minimal
 - [Compression TGLs = 10-2]
- * Clitoral Gland Duct Dilation Mild
 - [Dilation TGLs = 1-16]
 - [Inflammation TGLs = 2-16]Inflammation Chronic Active, Moderate
- * Kidney Nephropathy Chronicprogr, Minimal
- * Liver Extramedullary Hematopoiesis Minimal
 - Hepatocyte Hypertrophy Mild
 - Hepatocyte Necrosis Mild
 - [Necrosis TGLs = 6-12]
- * Lung Alveolus Infiltration Cellular Histiocyte, Mild
 - [Infiltration Cellular TGLs = 8-10]
- * Lymph Node, Mandibular Proliferation Plasma Cell, Mild
 - [Proliferation TGLs = 12-9]
- * Mammary Gland Duct Dilation Moderate
 - Fibroadenoma Multiple
 - Hyperplasia Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1495

TRT#: 4

SEX: Female

DAY ON TEST: 724

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1495

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroadenoma TGLs = 3,9-20,21]

| | | | |
|-----------------------------|-------------------------------|-------------------------------|------------------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 11-4] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Tissue NOS | Abdominal, Fat | Necrosis | Mild |
| | [Necrosis TGLs = 5-20] | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |
| | | Polyp Stromal | Multiple |
| | [Polyp Stromal TGLs = 4-16] | | |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1496

TRT#: 4

SEX: Female

DAY ON TEST: 740

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1496

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Adenoma | |
| [Adenoma TGLs = 10-8] | | | |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Minimal |
| | | Polyp Stromal | |
| [Polyp Stromal TGLs = 7-16] | | | |

Animal Note: TGL 5 = NST (No Section Taken)

Animal Note: TGL 9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1497

TRT#: 4

SEX: Female

DAY ON TEST: 612

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1497

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Aorta | * Bone | * Brain | * Esophagus |
| * Eye | * Harderian Gland | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Salivary Glands | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- * Nerve Trigeminal

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Degeneration Hypertrophy | Cystic, Mild Mild |
| | [Degeneration TGLs = 4-7] | | |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Bone Marrow | | Hypercellularity | Moderate |
| * Clitoral Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Mild |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Infiltration Cellular | Histiocyte, Minimal |
| | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 7-10] | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | | Adenocarcinoma | |
| | Duct | Dilation | Minimal |
| | | Fibroadenoma | |
| | [Adenocarcinoma TGLs = 2-21] | | |
| | [Fibroadenoma TGLs = 1-20] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |

Note: Approximately two-thirds of Level 3 available for evaluation.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1497

TRT#: 4

SEX: Female

DAY ON TEST: 612

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1497

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|------------------------------|------------------------------|-------------------|
| * Ovary | | Atrophy | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Hyperplasia | Lymphocyte, Mild |
| | | Pigment | Minimal |
| | [Hyperplasia TGLs = 3-12] | | |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Uterus | | Dilation | Moderate |
| | | Inflammation | Suppurative, Mild |
| | [Dilation TGLs = 5-16] | | |
| | [Inflammation TGLs = 6-16] | | |

PRIMARY CAUSE OF DEATH - Mammary Gland Adenocarcinoma

CONTRIBUTORY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGLs 8,9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1499

TRT#: 4

SEX: Female

DAY ON TEST: 737

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1499

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Aorta | * Bone | * Clitoral Gland | * Esophagus |
| * Eye | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Liver | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Thyroid Gland | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|--------------------------|--|---|--|
| * Adrenal Cortex | | Degeneration Hypertrophy Vacuolation, Cytoplasmic | Cystic, Minimal Moderate Minimal |
| | [Degeneration TGLs = 6-7] | | |
| * Adrenal Medulla | | Hyperplasia | Mild |
| * Bone Marrow | | Hypercellularity | Moderate |
| * Brain | | Compression | Minimal |
| * Harderian Gland | | Atrophy | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| | [Nephropathy TGLs = 7-13] | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 8-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Moderate |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Mild |
| | | Fibroadenoma | Multiple |
| | [Fibroadenoma TGLs = 1,2,3,4,5-20,21,22,23,24] | Galactocele | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1499

TRT#: 4

SEX: Female

DAY ON TEST: 737

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1499

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Intermed | Cyst | |
| [Adenoma TGLs = 9-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | | Polyp Stromal | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1501

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1501

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skeletal Muscle
- * Stomach, Glandular
- * Uterus
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Skin
- * Trachea
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trigeminal Ganglion
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder

MISSING

- * Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Adrenal Medulla
 - Hyperplasia
 - Pheochromocytoma Benign
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
- [Dilation TGLs = 3-16]
- * Eye
 - Atrophy
- * Heart
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- * Liver
 - Basophilic Focus
 - Clear Cell Focus
 - Eosinophilic Focus
- Hepatocyte
 - Vacuolation, Cytoplasmic
- [Vacuolation, Cytoplasmic TGLs = 4-12]
- * Lung
 - Hemorrhage
 - Alveolus
 - Infiltration Cellular
- [Hemorrhage TGLs = 2-10]
- * Lymph Node, Mesenteric
 - Erythrophagocytosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1501

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1501

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|------------------------------|-------------------------------|---------------------|
| * Mammary Gland | | Fibroadenoma | |
| | | Hyperplasia | Mild |
| | [Fibroadenoma TGLs = 1-20] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Cyst | |
| | Rete Ovarii | Hyperplasia | Minimal |
| * Pancreas | Acinus | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1504

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1504

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Uterus
- * Aorta
- * Intestine Large, Colon
- * Pancreas
- * Skin
- * Thyroid Gland
- * Bone
- * Intestine Large, Rectum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea
- * Esophagus
- * Intestine Small, Duodenum
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

INSUFFICIENT TISSUE

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - [Adenoma TGLs = 2-7]
 - * Bone Marrow
 - * Brain
 - [Compression TGLs = 10-2]
 - * Clitoral Gland
 - Duct
 - Duct
 - * Harderian Gland
 - * Heart
 - * Islets, Pancreatic
 - [Carcinoma TGLs = 6-6]
 - * Kidney
 - [Nephropathy TGLs = 3-20]
 - * Liver
 - * Lung
 - Bile Duct
 - Alveolus
 - [Infiltration Cellular TGLs = 9-10]
- Adenoma
- Hypercellularity
- Compression
- Dilation
- Hyperplasia
- Inflammation
- Cardiomyopathy
- Carcinoma
- Nephropathy
- Eosinophilic Focus
- Hyperplasia
- Congestion
- Infiltration Cellular
- Marked
- Mild
- Mild
- Mild
- Chronic Active, Minimal
- Mild
- Chronicprogr, Minimal
- Minimal
- Mild
- Histiocyte, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1504

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1504

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------------------------|-------------------------------|------------------------|
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Moderate |
| | | Proliferation | Plasma Cell, Marked |
| | [Proliferation TGLs = 7-9] | | |
| * Mammary Gland | | Adenocarcinoma | |
| | Duct | Dilation | Moderate |
| | | Hyperplasia | Mild |
| | [Adenocarcinoma TGLs = 12-21] | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| Oral Mucosa | | Inflammation | Chronic Active, Marked |
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 11-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hemorrhage | Mild |
| | [Hemorrhage TGLs = 8-6] | | |
| Tissue NOS | Abdominal, Fat | Necrosis | Minimal |
| | [Necrosis TGLs = 5-20] | | |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH - Oral Mucosa Inflammation

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Animal Note: TGLS 13,14,15 = NST (No Section Taken)

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1505

TRT#: 4

SEX: Female

DAY ON TEST: 706

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1505

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|-------------|--|--------------------------------------|
| [Fibroadenoma TGLs = 1-20] | | | |
| * Ovary | Bursa | Cystadenocarcinoma Dilation Lymphoma Malignant | Mild |
| [Cystadenocarcinoma TGLs = 7-16,16.1] | | | |
| [Dilation TGLs = 9-16,16.1] | | | |
| * Pancreas | Acinus | Hyperplasia Lymphoma Malignant | Minimal |
| [Lymphoma Malignant TGLs = 10-6] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration Lymphoma Malignant | Mild |
| * Peripheral Nerve, Tibial | | Degeneration Lymphoma Malignant | Mild |
| * Pituitary Gland | | Lymphoma Malignant | |
| * Salivary Glands | | Lymphoma Malignant | |
| Skeletal Muscle | | Lymphoma Malignant | |
| * Skin | Subcut Tiss | Cyst Epithelial Inclusion Lymphoma Malignant | |
| * Spinal Cord, Cervical | | Lymphoma Malignant | |
| * Spinal Cord, Lumbar | Nerve | Degeneration Lymphoma Malignant | Mild |
| * Spinal Cord, Thoracic | | Degeneration Lymphoma Malignant | Minimal |
| * Spleen | | Lymphoma Malignant | |
| [Lymphoma Malignant TGLs = 6-12] | | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia Inflammation Lymphoma Malignant | Moderate Chronic Active, Moderate |
| | | Ulcer | Marked |
| * Stomach, Glandular | | Lymphoma Malignant | |
| * Thymus | | Lymphoma Malignant | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1505

TRT#: 4

SEX: Female

DAY ON TEST: 706

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1505

ORGAN AND ACCOUNTABLE SITE STATUS

[Lymphoma Malignant TGLs = 4-6]

* Thyroid Gland

Lymphoma Malignant

* Uterus

Lymphoma Malignant

PRIMARY CAUSE OF DEATH

- Spleen Lymphoma Malignant

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1510

TRT#: 4

SEX: Female

DAY ON TEST: 711

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1510

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- * Aorta
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skin
- * Trachea
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Stomach, Forestomach

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hyperplasia
 - Hypertrophy
 - Cystic, Mild
 - Minimal
 - Mild
 - [Degeneration TGLs = 5-7]
- * Bone Marrow
 - Hypercellularity
 - Neuroblastoma
 - Marked
- * Brain
 - Note: Focal accumulation of cells unilaterally within the precommissural nucleus.
- * Clitoral Gland
 - Duct
 - Dilation
 - Moderate
- * Harderian Gland
 - Atrophy
 - Minimal
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Extramedullary Hematopoiesis
 - Mixed Cell Focus
 - Minimal
- * Lung
 - Alveolus
 - Infiltration Cellular
 - TGLs = 13-10]
 - Histiocyte, Mild
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Lymphocyte, Minimal
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - Galactocele
 - Moderate
 - Multiple
 - [Fibroadenoma TGLs = 7,8,9-20,21,22]
- * Nerve Trigeminal
 - Degeneration
 - Mild
- * Nose
 - Olfactory Epi
 - Respirat Epith
 - Accumulation, Hyaline Droplet
 - Accumulation, Hyaline Droplet
 - Moderate
 - Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1510

TRT#: 4

SEX: Female

DAY ON TEST: 711

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1510

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|------------------------------|--------------------|
| * Ovary | | Cyst | |
| | Bursa | Dilation | Mild |
| | Rete Ovarii | Hyperplasia | Minimal |
| | [Cyst TGLs = 1-16] | | |
| | [Dilation TGLs = 2-16] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 6-4] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | [Extramedullary Hematopoiesis TGLs = 11-12] | | |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| * Thyroid Gland | C Cell | Adenoma | |
| Trigeminal Ganglion | | Degeneration | Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Moderate |
| | | Polyp Stromal | |
| | [Polyp Stromal TGLs = 3,4-16] | | |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGLs 12,14 = NCL (No Corresponding Lesion)

Animal Note: TGL 10 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1511

TRT#: 4

SEX: Female

DAY ON TEST: 731

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1511

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|---------------|--------------------|
| | Rete Ovarii | Hyperplasia | Mild |
| * Pancreas | Acinus | Atrophy | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 6-4] | | |
| * Salivary Glands | Parotid GI | Atrophy | Marked |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | Note: Spinal nerves only available for evaluation. | | |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Pigment | Moderate |
| * Uterus | Epithelium | Metaplasia | Squamous, Moderate |
| | | Polyp Stromal | |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1512

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1512

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Stomach, Forestomach | * Stomach, Glandular | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| * Bone Marrow | | Hypercellularity | Minimal |
| * Clitoral Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Marked |
| | [Inflammation TGLs = 4-16] | | |
| * Eye | Retina | Atrophy | Minimal |
| * Harderian Gland | | Atrophy | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | Bile Duct | Cyst | |
| | Bile Duct | Fibrosis | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 7-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Mild |
| | | Fibroadenoma | Multiple |
| | | Galactocele | |
| | [Fibroadenoma TGLs = 2,3-20,21] | | |
| | [Galactocele TGLs = 1-9,16] | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1512

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1512

ORGAN AND ACCOUNTABLE SITE STATUS

Cyst

[Cyst TGLs = 5-16]

| | | | |
|-----------------------------|-------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Moderate |

Animal Note: TGLs 6,9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1513

TRT#: 4

SEX: Female

DAY ON TEST: 300

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1513

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Urinary Bladder
- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Peripheral Nerve, Tibial
- * Spinal Cord, Lumbar
- * Thyroid Gland
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Stomach, Forestomach
- Trigeminal Ganglion

OBSERVATIONS

- * Bone Marrow
- * Clitoral Gland
- * Kidney
- * Liver
- * Lung
- * Mammary Gland
- [Fibroadenoma TGLs = 1 - 20]
- * Nose
- * Ovary
- * Peripheral Nerve, Sciatic
- * Pituitary Gland
- Note: Pars nervosa not present.
- Skeletal Muscle
- * Spleen
- * Thymus
- * Uterus
- Alveolus
- Olfactory Epi
- Respirat Epith
- Pars Distalis
- Degeneration
- Endometrium
- Epithelium
- Hypercellularity
- Inflammation
- Nephropathy
- Extramedullary Hematopoiesis
- Infiltration Cellular
- Fibroadenoma
- Accumulation, Hyaline Droplet
- Accumulation, Hyaline Droplet
- Inflammation
- Atrophy
- Degeneration
- Cyst
- Degeneration
- Extramedullary Hematopoiesis
- Pigment
- Hyperplasia
- Hyperplasia
- Metaplasia
- Mild
- Chronic Active, Mild
- Chronicprogr, Minimal
- Minimal
- Histiocyte, Mild
- Moderate
- Minimal
- Acute, Minimal
- Moderate
- Minimal
- Minimal
- Mild
- Minimal
- Epithelial, Minimal
- Cystic, Mild
- Squamous, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1513

TRT#: 4

SEX: Female

DAY ON TEST: 300

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1513

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Metaplasia predominantly affecting glands.

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1514

TRT#: 4

SEX: Female

DAY ON TEST: 737

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1514

ORGAN AND ACCOUNTABLE SITE STATUS

Rete Ovarii

Hyperplasia
Inflammation

Mild
Chronic, Minimal

[Cyst TGLs = 3-16]

- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland

Fibrosis
Degeneration
Degeneration

Minimal
Minimal
Minimal

Pars Distalis
Pars Distalis

Adenoma
Cyst

[Adenoma TGLs = 9-4]

- * Spinal Cord, Lumbar
- * Spinal Cord, Thoracic
- * Spleen

Nerve

Degeneration
Degeneration
Extramedullary Hematopoiesis
Pigment
Atrophy
Cyst

Mild
Minimal
Mild
Mild
Minimal

- * Thymus

- * Thyroid Gland
- * Uterus

C Cell

Hyperplasia
Hyperplasia
Dilation
Inflammation
Metaplasia

Epithelial, Minimal
Mild
Marked
Suppurative, Moderate
Squamous, Marked

[Dilation TGLs = 5-16]

[Inflammation TGLs = 6-16]

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1515

TRT#: 4

SEX: Female

DAY ON TEST: 744

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1515

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|------------------------------|---------------------|
| * Salivary Glands | Sublingual GI | Atrophy | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Tissue NOS | Fat | Necrosis | Mild |
| Note: Necrosis of fat adjacent to ovary. [Necrosis TGLs = 2-20] | | | |
| * Uterus | | Adenomyosis | Minimal |
| | Endometrium | Hyperplasia | Cystic, Marked |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1516

TRT#: 4

SEX: Female

DAY ON TEST: 407

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1516

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Salivary Glands
- * Spinal Cord, Lumbar
- * Thyroid Gland
- * Adrenal Medulla
- * Esophagus
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Peripheral Nerve, Sciatic
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Trachea
- * Aorta
- * Harderian Gland
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Peripheral Nerve, Tibial
- * Skin
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone
- * Intestine Large, Colon
- * Lung
- * Pancreas
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Bone Marrow
- * Clitoral Gland
- [Dilation TGLs = 1-16]
- * Heart
- * Kidney
- * Liver
- [Necrosis TGLs = 2-12]
- Lymph Node
- [Erythrophagocytosis TGLs = 8-20]
- * Mammary Gland
- * Nose
- * Ovary
- * Spleen
- [Extramedullary Hematopoiesis TGLs = 3-12]
- * Thymus
- * Uterus
- Duct
- Ventricl Rgt
- Renal Tubule
- Hepatocyte
- Lumbar
- Duct
- Respirat Epith
- Olfactory Epi
- Hypercellularity
- Dilation
- Inflammation
- Cardiomyopathy
- Cardiomyopathy
- Cyst
- Necrosis
- Erythrophagocytosis
- Dilation
- Accumulation, Hyaline Droplet
- Accumulation, Hyaline Droplet
- Atrophy
- Extramedullary Hematopoiesis
- Cyst
- Dilation
- Marked
- Moderate
- Chronic Active, Mild
- Minimal
- Minimal
- Moderate
- Mild
- Minimal
- Mild
- Mild
- Moderate
- Marked
- Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1516

TRT#: 4

SEX: Female

DAY ON TEST: 407

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1516

ORGAN AND ACCOUNTABLE SITE STATUS

Inflammation

Suppurative, Marked

[Dilation TGLs = 5-16]

PRIMARY CAUSE OF DEATH - Liver Hepatocyte Necrosis

Animal Note: TGL 6 = NST (No Section Taken)

Animal Note: TGLs 4,7,9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1517

TRT#: 4

SEX: Female

DAY ON TEST: 741

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1517

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------------|------------------------------|----------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Fibrosis | Mild |
| | | Pigment | Mild |
| | [Fibrosis TGLs = 2-20] | | |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Moderate |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |
| | | Polyp Stromal | |
| | [Polyp Stromal TGLs = 1-16] | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1519

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1519

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Liver
- * Parathyroid Gland
- * Stomach, Forestomach
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lung
- * Salivary Glands
- * Stomach, Glandular
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Trachea
- * Bone Marrow
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Pancreas
- * Skin
- * Urinary Bladder

INSUFFICIENT TISSUE

- * Thymus

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Duct
 - [Dilation TGLs = 2-16]
- * Harderian Gland
 - Atrophy
 - Inflammation
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Mammary Gland
 - Fibroadenoma
 - Hyperplasia
- * Nerve Trigeminal
 - [Fibroadenoma TGLs = 1-20]
- * Nose
 - Olfactory Epi
- * Ovary
 - Degeneration
 - Accumulation, Hyaline Droplet
 - Atrophy
 - Cyst
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1519

TRT#: 4

SEX: Female

DAY ON TEST: 738

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1519

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|------------------------------|-----------------|
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Tissue NOS | Fat | Necrosis | Moderate |
| Note: Necrosis of fat adjacent to ovary. | | | |
| [Necrosis TGLs = 3-21] | | | |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1520

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1520

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Kidney | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Pancreas | * Salivary Glands | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|-----------------------------|------------------------------|-----------------------------------|------------------------|
| * Adrenal Cortex | | Accessory Adrenal Cortical Nodule | |
| | | Hyperplasia | Minimal |
| | | Hypertrophy | Minimal |
| * Clitoral Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| * Eye | Retina | Atrophy | Minimal |
| * Islets, Pancreatic | | Hyperplasia | Minimal |
| * Liver | Bile Duct | Cyst | |
| | | Eosinophilic Focus | |
| | [Cyst TGLs = 2-12] | | |
| * Lung | | Inflammation | Granulomatous, Minimal |
| * Mammary Gland | Duct | Dilation | Minimal |
| | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 1-20] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Marked |
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1520

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1520

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------------|------------------------------|---------------------|
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1521

TRT#: 4

SEX: Female

DAY ON TEST: 635

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1521

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Esophagus
- * Harderian Gland
- * Heart
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Islets, Pancreatic
- * Lymph Node, Mesenteric
- * Pancreas
- * Parathyroid Gland
- * Salivary Glands
- Skeletal Muscle
- * Skin
- * Spinal Cord, Thoracic
- * Stomach, Glandular
- * Trachea
- Trigeminal Ganglion
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Brain
- Compression
- Mild
- * Clitoral Gland
- Duct
- Dilation
- Marked
- [Dilation TGLs = 4,5-16]
- * Kidney
- Nephropathy
- Chronicprogr, Minimal
- * Liver
- Basophilic Focus
- * Lung
- Congestion
- Mild
- Alveolus
- Infiltration Cellular
- Histiocyte, Moderate
- [Infiltration Cellular TGLs = 1-10]
- * Lymph Node, Mandibular
- Congestion
- Mild
- [Congestion TGLs = 3-9]
- * Mammary Gland
- Duct
- Dilation
- Moderate
- Galactocele
- [Galactocele TGLs = 6-20]
- * Nerve Trigeminal
- Degeneration
- Mild
- * Nose
- Olfactory Epi
- Accumulation, Hyaline Droplet
- Moderate
- Foreign Body
- Inflammation
- Suppurative, Mild
- Note: Plant-based material and bacteria present in nasal lumen.
- * Ovary
- Atrophy
- Marked
- Cyst
- * Peripheral Nerve, Sciatic
- Degeneration
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1521

TRT#: 4

SEX: Female

DAY ON TEST: 635

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1521

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---------------|--------------|-----------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 2-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | Red Pulp | Atrophy | Marked |
| | | Pigment | Marked |
| * Stomach, Forestomach | | Erosion | Mild |
| | Epithelium | Hyperplasia | Mild |
| * Thymus | | Hemorrhage | Mild |
| * Thyroid Gland | C Cell | Adenoma | |
| | C Cell | Carcinoma | |
| [Carcinoma TGLs = 7-8] | | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1522

TRT#: 4

SEX: Female

DAY ON TEST: 660

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1522

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Stomach, Forestomach
- * Aorta
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Glandular
- * Bone
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea
- * Esophagus
- * Intestine Small, Duodenum
- * Pancreas
- * Spinal Cord, Thoracic
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Brain
- * Clitoral Gland
- * Eye
- * Harderian Gland
- * Heart
- * Islets, Pancreatic
- * Kidney
- * Liver
- [Cyst TGLs = 3-12]
- * Lung
- [Hemorrhage TGLs = 6-10]
- [Leukemia Mononuclear TGLs = 5-10]
- * Lymph Node, Mandibular
- * Mammary Gland
- Leukemia Mononuclear
- Hypercellularity
- Leukemia Mononuclear
- Compression
- Leukemia Mononuclear
- Inflammation
- Leukemia Mononuclear
- Leukemia Mononuclear
- Leukemia Mononuclear
- Adenoma
- Leukemia Mononuclear
- Nephropathy
- Cyst
- Leukemia Mononuclear
- Necrosis
- Hemorrhage
- Leukemia Mononuclear
- Proliferation
- Adenoma
- Fibroadenoma
- Hyperplasia
- Moderate
- Minimal
- Chronic Active, Moderate
- Chronicprogr, Minimal
- Minimal
- Minimal
- Plasma Cell, Mild
- Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1522

TRT#: 4

SEX: Female

DAY ON TEST: 660

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1522

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroadenoma TGLs = 7-20]

* Nerve Trigeminal

Degeneration

Minimal

* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Minimal

* Ovary

Leukemia Mononuclear

* Peripheral Nerve, Sciatic

Leukemia Mononuclear

Degeneration

Mild

* Peripheral Nerve, Tibial

Leukemia Mononuclear

* Pituitary Gland

Pars Distalis

Leukemia Mononuclear

Adenoma

Leukemia Mononuclear

[Adenoma TGLs = 12-4]

* Skin

Subcut Tiss

Squamous Cell Carcinoma

[Squamous Cell Carcinoma TGLs = 8-21]

* Spinal Cord, Cervical

Leukemia Mononuclear

* Spinal Cord, Lumbar

Nerve

Degeneration

Mild

* Spleen

Accessory Spleen

Extramedullary Hematopoiesis

Minimal

Leukemia Mononuclear

[Leukemia Mononuclear TGLs = 1,2,9,10-12,20]

* Thymus

Atrophy

Mild

Cyst

Hyperplasia

Epithelial, Minimal

* Thyroid Gland

Leukemia Mononuclear

Trigeminal Ganglion

Degeneration

Minimal

* Uterus

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Animal Note: TGL 11 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1523

TRT#: 4

SEX: Female

DAY ON TEST: 550

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 1-5224-1523

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|-----------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Esophagus |
| * Eye | * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Nerve Trigeminal | * Ovary |
| * Pancreas | * Parathyroid Gland | * Peripheral Nerve, Sciatic | * Pituitary Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Lumbar | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | * Uterus |

OBSERVATIONS

- | | | | |
|----------------------------|------------------------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Minimal |
| * Bone Marrow | | Hypercellularity | Moderate |
| * Brain | | Glioma Malignant | |
| * Clitoral Gland | Duct | Dilation | Mild |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Eosinophilic Focus | |
| * Lung | | Hemorrhage | Minimal |
| | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Hemorrhage TGLs = 3-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 1-20] | Hyperplasia | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1523

TRT#: 4

SEX: Female

DAY ON TEST: 550

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 1-5224-1523

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Mild

Hyperplasia

Epithelial, Minimal

* Thyroid Gland

C Cell

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1524

TRT#: 4

SEX: Female

DAY ON TEST: 623

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1524

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Intestine Large, Colon
- * Pancreas
- * Skin
- * Trachea
- * Esophagus
- * Intestine Large, Rectum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Eye
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- * Uterus

MISSING

- * Thymus
- Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
 - * Adrenal Medulla
 - * Bone Marrow
 - * Brain
 - [Leukemia Mononuclear TGLs = 8-2]
 - * Clitoral Gland
 - [Dilation TGLs = 1-16]
 - * Heart
 - Ventricl Rgt
 - * Kidney
 - * Liver
 - Hepatocyte
 - Hepatocyte
 - [Vacuolation, Cytoplasmic TGLs = 3-12]
 - * Lung
 - Alveolus
- Hyperplasia
 - Hyperplasia
 - Hypercellularity
 - Leukemia Mononuclear
 - Dilation
 - Cardiomyopathy
 - Cardiomyopathy
 - Leukemia Mononuclear
 - Leukemia Mononuclear
 - Nephropathy
 - Leukemia Mononuclear
 - Necrosis
 - Vacuolation, Cytoplasmic
 - Congestion
 - Hemorrhage
 - Infiltration Cellular
- Minimal
 - Mild
 - Marked
 - Moderate
 - Mild
 - Minimal
 - Chronicprogr, Minimal
 - Mild
 - Marked
 - Mild
 - Mild
 - Histiocyte, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1524

TRT#: 4

SEX: Female

DAY ON TEST: 623

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1524

ORGAN AND ACCOUNTABLE SITE STATUS

Leukemia Mononuclear

[Congestion TGLs = 7-10]

[Infiltration Cellular TGLs = 6-10]

Lymph Node Mediastinal

[Erythrophagocytosis TGLs = 10-20]

Erythrophagocytosis

Marked

* Lymph Node, Mandibular

Erythrophagocytosis

Moderate

Leukemia Mononuclear

[Erythrophagocytosis TGLs = 2-9.1]

* Mammary Gland Duct

Dilation

Minimal

* Nerve Trigeminal

Degeneration

Minimal

Leukemia Mononuclear

* Nose Olfactory Epi

Accumulation, Hyaline Droplet

Minimal

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

* Ovary

Atrophy

Mild

Cyst

Leukemia Mononuclear

* Peripheral Nerve, Sciatic

Degeneration

Minimal

* Peripheral Nerve, Tibial

Degeneration

Minimal

* Pituitary Gland

Leukemia Mononuclear

[Leukemia Mononuclear TGLs = 9-4]

* Spinal Cord, Lumbar Nerve

Degeneration

Mild

* Spinal Cord, Thoracic

Leukemia Mononuclear

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLs = 4,5-12,20]

* Thyroid Gland Follicular Cel

Hyperplasia

Minimal

Tissue NOS Mediastinum

Hemorrhage

Marked

Inflammation

Chronic Active, Marked

Mediastinum

Inflammation

Chronic, Marked

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

Animal Note: TGL 11 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1525

TRT#: 4

SEX: Female

DAY ON TEST: 741

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1525

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Pancreas
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Skin
- * Thyroid Gland
- * Uterus
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 Mild
Mild
Minimal
- * Adrenal Medulla
 - Hyperplasia
 Mild
- * Bone Marrow
 - Hypercellularity
 Minimal
- * Clitoral Gland
 - Duct
 - [Dilation TGLs = 2,3-16]
 - Dilation
 Moderate
- * Eye
 - Sarcoma
- * Islets, Pancreatic
 - Hyperplasia
 Minimal
- * Kidney
 - Nephropathy
 Chronicprogr, Minimal
- * Liver
 - Mixed Cell Focus
 - Hepatocyte
 - Necrosis
 - [Necrosis TGLs = 7-12]
 Mild
- * Lung
 - Alveolus
 - Infiltration Cellular
 - Lymphoma Malignant
 - [Infiltration Cellular TGLs = 6-10]
 Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 Lymphocyte, Minimal
Plasma Cell, Mild
- * Mammary Gland
 - Fibroadenoma
 - Hyperplasia
 - [Fibroadenoma TGLs = 1-20]
 Marked
- * Nerve Trigeminal
 - Degeneration
 Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1525

TRT#: 4

SEX: Female

DAY ON TEST: 741

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1525

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------------------------|--|---|
| * Nose | Respirat Epith Olfactory Epi | Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Inflammation | Minimal Mild Suppurative, Minimal |
| * Ovary | | Cyst | |
| [Cyst TGLs = 4-16] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis Pigment | Mild Minimal |
| * Thymus | | Atrophy Cyst Hyperplasia | Mild Epithelial, Mild |

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1526

TRT#: 4

SEX: Female

DAY ON TEST: 744

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1526

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric | * Pancreas |
| * Parathyroid Gland | * Salivary Glands | Skeletal Muscle | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|---|---------------|-------------------------------|--------------------------|
| * Adrenal Cortex | | Degeneration Hypertrophy | Cystic, Moderate Mild |
| [Degeneration TGLs = 3-7] | | | |
| * Adren Medulla | | | |
| Note: One of pair available for evaluation. | | | |
| * Clitoral Gland | Duct | Dilation | Marked |
| [Dilation TGLs = 2,6-16] | | | |
| * Harderian Gland | | Atrophy | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| [Infiltration Cellular TGLs = 5-10] | | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Minimal |
| | | Fibroadenoma | |
| | | Hyperplasia | Mild |
| [Fibroadenoma TGLs = 1-20] | | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1526

TRT#: 4

SEX: Female

DAY ON TEST: 744

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1526

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Hemorrhage | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1527

TRT#: 4

SEX: Female

DAY ON TEST: 464

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1527

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Trachea
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- Skeletal Muscle
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Skin
- * Stomach, Glandular
- * Uterus
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Peripheral Nerve, Tibial
- * Spinal Cord, Lumbar
- * Thyroid Gland

MISSING

- * Pituitary Gland
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Medulla
 - [Pheochromocytoma Benign TGLs = 4-7]
- * Bone Marrow
- * Clitoral Gland
- * Kidney
- * Liver
 - Bile Duct
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 3-10]
- * Lymph Node, Mandibular
- * Mammary Gland
 - [Fibroadenoma TGLs = 1,2-20,21]
- * Nose
 - Olfactory Epi
- * Ovary
- * Peripheral Nerve, Sciatic
- * Spinal Cord, Cervical
- * Spleen
- Pheochromocytoma Benign
- Hypercellularity
- Inflammation
- Nephropathy
- Hyperplasia
- Infiltration Cellular
- Inflammation
- Hyperplasia
- Proliferation
- Fibroadenoma
- Hyperplasia
- Accumulation, Hyaline Droplet
- Cyst
- Degeneration
- Degeneration
- Extramedullary Hematopoiesis
- Minimal
- Chronic Active, Marked
- Chronicprogr, Minimal
- Minimal
- Histiocyte, Mild
- Chronic Active, Minimal
- Lymphocyte, Minimal
- Plasma Cell, Moderate
- Multiple
- Moderate
- Mild
- Minimal
- Minimal
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1527

TRT#: 4

SEX: Female

DAY ON TEST: 464

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1527

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Pigment

Minimal

Hyperplasia

Epithelial, Minimal

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1528

TRT#: 4

SEX: Female

DAY ON TEST: 744

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1528

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------|----------------|------------------------------|---------------------|
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |
| Tissue NOS | Abdominal, Fat | Necrosis | Mild |
| [Necrosis TGLs = 4-20] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1529

TRT#: 4

SEX: Female

DAY ON TEST: 319

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1529

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|----------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Kidney | * Lymph Node, Mesenteric | * Nerve Trigeminal |
| * Pancreas | * Peripheral Nerve, Sciatic | * Peripheral Nerve, Tibial | * Pituitary Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Lumbar | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

INSUFFICIENT TISSUE

- * Parathyroid Gland

OBSERVATIONS

- | | | | |
|-----------------------------------|--|-------------------------------|----------------------|
| * Bone Marrow | | Hypercellularity | Marked |
| * Brain | | | |
| Note: Olfactory bulbs not present | | | |
| * Liver | | Extramedullary Hematopoiesis | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | | Inflammation | Chronic Active, Mild |
| | [Inflammation TGLs = 1-10,21] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| * Mammary Gland | | Adenocarcinoma | |
| | | Hyperplasia | Mild |
| | [Adenocarcinoma TGLs = 3 - 20] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| | Note: Level 3 largely absent | | |
| * Ovary | | Atrophy | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| | [Extramedullary Hematopoiesis TGLs = 2 - 12] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1529

TRT#: 4

SEX: Female

DAY ON TEST: 319

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1529

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Mild

* Uterus

Epithelium

Metaplasia

Squamous, Minimal

Note: Affecting the glands.

PRIMARY CAUSE OF DEATH

- Mammary Gland Adenocarcinoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1530

TRT#: 4

SEX: Female

DAY ON TEST: 628

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1530

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|----------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Pancreas | * Parathyroid Gland | * Peripheral Nerve, Tibial | * Salivary Glands |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Stomach, Glandular | * Thyroid Gland | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|---|--------------------|------------------------------|-----------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| [Hypertrophy TGLs = 4-7] | | | |
| * Bone Marrow | | Hypercellularity | Marked |
| * Clitoral Gland | Duct | Dilation | Moderate |
| | | Inflammation | Acute, Minimal |
| [Dilation TGLs = 7,8-16] | | | |
| [Inflammation TGLs = 8-16] | | | |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Basophilic Focus | |
| | | Extramedullary Hematopoiesis | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| [Infiltration Cellular TGLs = 5-10] | | | |
| Lymph Node | Lymph Sinus, Renal | Ectasia | Mild |
| | Iliac | Erythrophagocytosis | Marked |
| | Lumbar | Erythrophagocytosis | Moderate |
| | Renal | Erythrophagocytosis | Moderate |
| | | Erythrophagocytosis | Moderate |
| [Ectasia TGLs = 14-22] | | | |
| [Erythrophagocytosis TGLs = 9,10-20] | | | |
| [Erythrophagocytosis TGLs = 11,12-21] | | | |
| [Erythrophagocytosis TGLs = 13-22] | | | |
| [Erythrophagocytosis TGLs = 15,16-23] | | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1530

TRT#: 4

SEX: Female

DAY ON TEST: 628

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1530

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-----------------------------------|-------------------------------|----------------------|
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Marked |
| | | Fibroadenoma | Multiple |
| | | Hyperplasia | Minimal |
| | [Dilation TGLs = 1-9] | | |
| | [Fibroadenoma TGLs = 2,3-20,24] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Moderate |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1531

TRT#: 4

SEX: Female

DAY ON TEST: 744

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1531

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | Trigeminal Ganglion | |

OBSERVATIONS

- | | | | |
|---|---------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Adren Medulla | | | |
| Note: One of pair available for evaluation. | | | |
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Clitoral Gland | Duct | Dilation | Moderate |
| [Dilation TGLs = 5-16] | | | |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | | Inflammation | Granulomatous, Minimal |
| [Infiltration Cellular TGLs = 7-10] | | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Moderate |
| | | Proliferation | Plasma Cell, Moderate |
| * Mammary Gland | Duct | Dilation | Moderate |
| | | Fibroadenoma | Multiple |
| [Dilation TGLs = 4-9] | | | |
| [Fibroadenoma TGLs = 1,2,3-20,21,22] | | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1531

TRT#: 4

SEX: Female

DAY ON TEST: 744

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1531

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 8-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Urinary Bladder | | Infiltration Cellular | Histiocyte, Mild |
| * Uterus | | Dilation | Moderate |
| | Glands | Dilation | Moderate |
| | | Inflammation | Suppurative, Mild |
| | Epithelium | Metaplasia | Squamous, Marked |
| Note: Gland contains hemorrhage. | | | |
| [Dilation TGLs = 6-16] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1532

TRT#: 4

SEX: Female

DAY ON TEST: 649

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1532

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Peripheral Nerve, Tibial
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Trachea

MISSING

- * Parathyroid Gland

INSUFFICIENT TISSUE

- * Nerve Trigeminal

OBSERVATIONS

- * Adrenal Medulla
 - * Brain
 - [Compression TGLs = 3-2]
 - * Clitoral Gland
 - * Heart
 - * Kidney
 - * Liver
 - * Lung
 - [Infiltration Cellular TGLs = 2-10]
 - * Lymph Node, Mandibular
 - * Mammary Gland
 - [Dilation TGLs = 5-9,21]
 - * Nose
 - * Ovary
- | | | | |
|--|---------------|---|---|
| | Duct | Hyperplasia Compression | Marked Moderate |
| | | Dilation Inflammation | Mild Chronic Active, Marked |
| | Bile Duct | Cardiomyopathy Nephropathy | Minimal Chronicprogr, Minimal |
| | Alveolus | Cyst Mixed Cell Focus Infiltration Cellular | Histiocyte, Minimal |
| | Duct | Hyperplasia Proliferation Dilation | Lymphocyte, Mild Plasma Cell, Mild Marked |
| | Olfactory Epi | Accumulation, Hyaline Droplet Atrophy | Moderate Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1532

TRT#: 4

SEX: Female

DAY ON TEST: 649

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1532

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|------------------------|--------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 4-4] | | |
| * Spinal Cord, Cervical | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Uterus | Epithelium | Metaplasia | Squamous, Moderate |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 1,6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1533

TRT#: 4

SEX: Female

DAY ON TEST: 739

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1533

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------------|------------------------------|---------------------|
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | | Polyp Stromal | Multiple |

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1534

TRT#: 4

SEX: Female

DAY ON TEST: 740

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1534

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Urinary Bladder
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Liver
- * Parathyroid Gland
- * Stomach, Forestomach
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 - Cystic, Moderate
 - Mild
 - Minimal
- [Degeneration TGLs = 3-7]
- * Adren Medulla
 - Note: One of pair available for evaluation.
- * Clitoral Gland
 - Duct
 - Dilation
 - Mild
- * Harderian Gland
 - Atrophy
 - Minimal
- * Heart
 - Cardiomyopathy
 - Minimal
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Lung
 - Alveolus
 - Infiltration Cellular
 - Histiocyte, Minimal
- [Infiltration Cellular TGLs = 4-10]
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - Galactocele
 - Hyperplasia
 - Minimal
- [Fibroadenoma TGLs = 1-20]
- [Galactocele TGLs = 2-9]
- * Nerve Trigeminal
 - Degeneration
 - Mild
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Moderate
- * Ovary
 - Atrophy
 - Marked
- * Peripheral Nerve, Sciatic
 - Degeneration
 - Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1534

TRT#: 4

SEX: Female

DAY ON TEST: 740

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1534

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---------------|------------------------------|--------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Moderate |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1535

TRT#: 4

SEX: Female

DAY ON TEST: 676

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1535

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Intestine Small, Duodenum
- * Pancreas
- * Skin
- Trigeminal Ganglion
- * Aorta
- * Harderian Gland
- * Islets, Pancreatic
- * Parathyroid Gland
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Intestine Large, Colon
- * Liver
- * Salivary Glands
- * Thyroid Gland
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Brain
 - [Compression TGLs = 7-2]
- * Clitoral Gland
 - [Dilation TGLs = 1,2-16]
- * Heart
- * Kidney
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 3-10]
- * Lymph Node, Mandibular
- * Mammary Gland
 - Duct
- Note: Carcinoma arising within a fibroadenoma.
 - [Adenocarcinoma TGLs = 5-20]
 - [Galactocele TGLs = 6-21]
- * Nerve Trigeminal
- * Nose
 - Olfactory Epi
- * Ovary

- Hypertrophy
- Hypercellularity
- Compression
- Dilation
- Cardiomyopathy
- Nephropathy
- Congestion
- Infiltration Cellular
- Proliferation
- Adenocarcinoma
- Dilation
- Galactocele
- Degeneration
- Accumulation, Hyaline Droplet
- Atrophy
- Mild
- Mild
- Moderate
- Mild
- Minimal
- Chronicprogr, Minimal
- Minimal
- Histiocyte, Mild
- Plasma Cell, Mild
- Mild
- Moderate
- Mild
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1535

TRT#: 4

SEX: Female

DAY ON TEST: 676

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1535

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|--------------|------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 4-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Pigment | Moderate |
| * Stomach, Forestomach | | Edema | Mild |
| | Epithelium | Hyperplasia | Moderate |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGL 8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1536

TRT#: 4

SEX: Female

DAY ON TEST: 532

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1536

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Brain | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Nerve Trigeminal | * Pancreas | * Peripheral Nerve, Tibial |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Lumbar | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- | | |
|------------------|---------------------|
| * Clitoral Gland | * Parathyroid Gland |
|------------------|---------------------|

OBSERVATIONS

- | | | | |
|-----------------------------|---|-------------------------------|-------------------------|
| * Bone Marrow | | Hypercellularity | Marked |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Extramedullary Hematopoiesis | Minimal |
| | Hepatocyte | Necrosis | Mild |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Moderate |
| | | Inflammation | Chronic Active, Minimal |
| | [Infiltration Cellular TGLs = 3-10] | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Mild |
| | | Fibroadenoma | |
| | | Galactocele | |
| | | Hyperplasia | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| | Note: Pars distalis available for evaluation. | | |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| * Thymus | | Atrophy | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1536

TRT#: 4

SEX: Female

DAY ON TEST: 532

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1536

ORGAN AND ACCOUNTABLE SITE STATUS

* Uterus

Cyst

Hyperplasia

Dilation

Inflammation

Thrombus

Epithelial, Minimal

Marked

Suppurative, Marked

Minimal

Note: Bacterial colonies present within uterine lumen.

[Dilation TGLs = 1-16.1]

[Inflammation TGLs = 2,7,8-16,16.1]

PRIMARY CAUSE OF DEATH - Uterus Inflammation

Animal Note: TGLs 4,6 = NCL (No Corresponding Lesion)

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1537

TRT#: 4

SEX: Female

DAY ON TEST: 740

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1537

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Aorta | * Bone | * Brain | * Esophagus |
| * Eye | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Nerve Trigeminal | * Parathyroid Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | * Uterus | |

OBSERVATIONS

- | | | | |
|---|-------------|-----------------------|------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| Note: One of pair available for evaluation. | | | |
| * Bone Marrow | | Hypercellularity | Marked |
| * Clitoral Gland | Duct | Dilation | Marked |
| [Dilation TGLs = 3,4-16] | | | |
| * Harderian Gland | | Atrophy | Minimal |
| | | Inflammation | Granulomatous, Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | | Angiectasis | Minimal |
| | | Basophilic Focus | |
| | | Eosinophilic Focus | |
| [Angiectasis TGLs = 9-21] | | | |
| [Eosinophilic Focus TGLs = 11-12] | | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| [Infiltration Cellular TGLs = 10-10] | | | |
| Lymph Node | Iliac | Erythrophagocytosis | Minimal |
| | Iliac | Proliferation | Plasma Cell, Minimal |
| [Erythrophagocytosis TGLs = 8-20] | | | |
| [Proliferation TGLs = 7-20] | | | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1537

TRT#: 4

SEX: Female

DAY ON TEST: 740

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1537

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------------|---------------|-------------------------------|----------------------|
| | | Proliferation | Plasma Cell, Minimal |
| [Ectasia TGLs = 5-9] | | | |
| * Mammary Gland | | Fibroadenoma | Multiple |
| | | Hyperplasia | Mild |
| [Fibroadenoma TGLs = 1,2-20,21] | | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | Rete Ovarii | Cyst | |
| | | Hyperplasia | Mild |
| [Cyst TGLs = 6-16] | | | |
| * Pancreas | Acinus | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1540

TRT#: 4

SEX: Female

DAY ON TEST: 699

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1540

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Uterus |

MISSING

- * Thymus

OBSERVATIONS

- | | | | |
|---|---------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hyperplasia | Moderate |
| | | Hypertrophy | Mild |
| * Bone Marrow | | Hypercellularity | Marked |
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Clitoral Gland | Duct | Dilation | Moderate |
| Note: One of pair available for evaluation. | | | |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Extramedullary Hematopoiesis | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | | Inflammation | Chronic Active, Minimal |
| [Infiltration Cellular TGLs = 6-10] | | | |
| * Mammary Gland | Duct | Dilation | Mild |
| | | Fibroadenoma | |
| | | Hyperplasia | Mild |
| [Fibroadenoma TGLs = 1-20] | | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | Rete Ovarii | Hyperplasia | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1540

TRT#: 4

SEX: Female

DAY ON TEST: 699

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1540

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|--|------------------------------|-------------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Intermed | Cyst | |
| | Pars Distalis | Hyperplasia | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | [Extramedullary Hematopoiesis TGLs = 2-12] | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Urinary Bladder | | Edema | Mild |
| | | Inflammation | Chronic Active, Minimal |
| | [Edema TGLs = 3-13] | | |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

TGL 7 = NCL (No Corresponding Lesion) tissue unavailable for evaluation.

Animal Note: TGL 4 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1541

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1541

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Small, Duodenum
- * Parathyroid Gland
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Skeletal Muscle
- * Thyroid Gland
- * Uterus
- * Clitoral Gland
- * Intestine Large, Colon
- * Lymph Node, Mesenteric
- * Skin
- * Trachea
- * Eye
- * Intestine Large, Rectum
- * Pancreas
- * Spinal Cord, Thoracic
- * Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
 - Adenoma
 - Hyperplasia
- * Adrenal Medulla
 - Pheochromocytoma Benign
- * Bone Marrow
 - Hypercellularity
- * Brain
 - [Compression TGLs = 7-2]
 - Compression
- * Esophagus
 - [Dilation TGLs = 5-8]
 - Dilation
- * Heart
 - Cardiomyopathy
- * Islets, Pancreatic
 - Hyperplasia
- * Kidney
 - Nephropathy
- * Liver
 - Angiectasis
 - Bile Duct
 - Hyperplasia
 - Mixed Cell Focus
- * Lung
 - Congestion
 - Alveolus
 - Infiltration Cellular
- * Lymph Node, Mandibular
 - [Congestion TGLs = 4-10]
 - Hyperplasia
 - Proliferation
- * Mammary Gland
 - [Proliferation TGLs = 2-9]
 - Duct
 - Dilation

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1541

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1541

ORGAN AND ACCOUNTABLE SITE STATUS

Fibroadenoma
Hyperplasia Mild

[Dilation TGLs = 1-9]
[Fibroadenoma TGLs = 8-20]

| | | | |
|-----------------------------|------------------------|-------------------------------|---------|
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 6-4] | | |
| * Salivary Glands | Parotid GI | Atrophy | Marked |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Hemorrhage | Mild |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGL 3 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1542

TRT#: 4

SEX: Female

DAY ON TEST: 741

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1542

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroadenoma TGLs = 1,5,6-20,22,23]

[Galactocele TGLs = 3,4-9,21]

| | | | |
|-----------------------------|---------------------------|-------------------------------|--------------------------|
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Marked |
| | | Cyst | |
| | Rete Ovarii | Hyperplasia | Minimal |
| | | | |
| | [Cyst TGLs = 8-16] | | |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Marked |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | | | |
| | [Adenoma TGLs = 14-4] | | |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Ectopic Parathyroid Gland | |
| | | Hyperplasia | Epithelial, Mild |
| * Thyroid Gland | Follicular Cel | Carcinoma | |
| | C Cell | Hyperplasia | Moderate |
| | | | |
| | [Carcinoma TGLs = 13-8] | | |
| Tissue NOS | Fat | Necrosis | Mild |
| | | | |
| | [Necrosis TGLs = 9-24] | | |
| * Urinary Bladder | | Edema | Mild |
| | | Inflammation | Acute, Minimal |
| * Uterus | | Dilation | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1542

TRT#: 4

SEX: Female

DAY ON TEST: 741

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1542

ORGAN AND ACCOUNTABLE SITE STATUS

[Dilation TGLs = 7-16]

Epithelium

Inflammation

Suppurative, Minimal

Metaplasia

Squamous, Marked

Animal Note: TGL 11 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1543

TRT#: 4

SEX: Female

DAY ON TEST: 300

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1543

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Urinary Bladder
- * Adrenal Medulla
- * Clitoral Gland
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Salivary Glands
- * Spinal Cord, Lumbar
- * Thymus
- * Uterus
- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Peripheral Nerve, Sciatic
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Thyroid Gland
- * Bone
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Ovary
- * Peripheral Nerve, Tibial
- * Skin
- * Stomach, Forestomach
- * Trachea

MISSING

- * Nerve Trigeminal

INSUFFICIENT TISSUE

Trigeminal Ganglion

OBSERVATIONS

- * Bone Marrow
 - * Kidney
 - * Liver
 - * Lung
 - Alveolus
 - [Adenocarcinoma TGLs = 1,2,3,4,5,6 - 20,21,22,23]
 - * Mammary Gland
 - [Adenocarcinoma TGLs = 7-20]
 - * Nerve Tibial
 - Note: Cross section available for evaluation
 - * Nose
 - Olfactory Epi
 - Respirat Epith
 - Note: Level 3 largely absent
 - * Spleen
- | | | |
|--|-------------------------------|----------------------------|
| | Hypercellularity | Marked |
| | Nephropathy | Chronicprogr, Minimal |
| | Inflammation | Granulomatous, Mild |
| | Adenocarcinoma | Metastatic (Mammary Gland) |
| | Infiltration Cellular | Histiocyte, Minimal |
| | Adenocarcinoma | |
| | Accumulation, Hyaline Droplet | Mild |
| | Accumulation, Hyaline Droplet | Minimal |
| | Extramedullary Hematopoiesis | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1543

TRT#: 4

SEX: Female

DAY ON TEST: 300

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1543

ORGAN AND ACCOUNTABLE SITE STATUS

Pigment

Minimal

PRIMARY CAUSE OF DEATH

- Mammary Gland Adenocarcinoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1544

TRT#: 4

SEX: Female

DAY ON TEST: 740

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1544

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Stomach, Glandular
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Thymus

OBSERVATIONS

- * Adrenal Medulla
 - * Clitoral Gland
 - [Dilation TGLs = 4,5-16]
 - * Eye
 - * Heart
 - * Kidney
 - * Liver
 - * Lung
 - [Infiltration Cellular TGLs = 8-10]
 - * Lymph Node, Mandibular
 - * Mammary Gland
 - [Fibroadenoma TGLs = 1,2,3-20,21,22]
 - * Nerve Trigeminal
 - * Nose
 - * Ovary
 - [Cyst TGLs = 6,7-16]
 - * Peripheral Nerve, Sciatic
 - * Peripheral Nerve, Tibial
- Pheochromocytoma Benign
Dilation
Inflammation

Atrophy
Cardiomyopathy
Nephropathy
Mixed Cell Focus
Infiltration Cellular

Hyperplasia
Proliferation
Dilation
Fibroadenoma

Degeneration
Accumulation, Hyaline Droplet
Atrophy
Cyst

Degeneration
Degeneration
- Marked
Chronic Active, Minimal

Minimal
Minimal
Chronicprogr, Mild
Histiocyte, Minimal

Lymphocyte, Minimal
Plasma Cell, Minimal
Mild
Multiple

Mild
Mild
Marked

Minimal
Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1544

TRT#: 4

SEX: Female

DAY ON TEST: 740

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1544

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|---------------|------------------------------|-------------------|
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |

Animal Note: TGL 9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1545

TRT#: 4

SEX: Female

DAY ON TEST: 711

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1545

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Clitoral Gland |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Kidney | * Lymph Node, Mesenteric |
| * Nerve Trigeminal | * Pancreas | * Parathyroid Gland | * Salivary Glands |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | * Urinary Bladder | * Uterus | |

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| | | Necrosis | Moderate |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Bone Marrow | | Hypercellularity | Marked |
| * Brain | | Sarcoma | |
| * Islets, Pancreatic | | Hyperplasia | Mild |
| * Liver | | Eosinophilic Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 3-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 1-20,21RT] | Hyperplasia | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Minimal |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1545

TRT#: 4

SEX: Female

DAY ON TEST: 711

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1545

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--|------------------------------|----------|
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| | [Extramedullary Hematopoiesis TGLs = 4-12] | | |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Animal Note: TGL 2 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1546

TRT#: 4

SEX: Female

DAY ON TEST: 695

DOSE: 1.5W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1546

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------|--|------------------------------|---------------------|
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | | Pigment | Minimal |
| | [Extramedullary Hematopoiesis TGLs = 4-12] | | |
| * Thymus | | Atrophy | Moderate |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Uterus | | Dilation | Mild |

PRIMARY CAUSE OF DEATH - Liver Hepatocyte Necrosis

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1547

TRT#: 4

SEX: Female

DAY ON TEST: 699

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1547

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Esophagus |
| * Eye | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland | Skeletal Muscle |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| * Urinary Bladder | | | |

MISSING

- * Thymus

OBSERVATIONS

- | | | | |
|---|---------------------------------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Degeneration | Cystic, Minimal |
| | | Hyperplasia | Mild |
| | | Hypertrophy | Marked |
| * Bone Marrow | | Hypercellularity | Marked |
| * Brain | | Compression | Minimal |
| * Clitoral Gland | Duct | Dilation | Moderate |
| | Duct | Hyperplasia | Mild |
| Note: One of pair available for evaluation. | | | |
| * Harderian Gland | | Atrophy | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Extramedullary Hematopoiesis | Minimal |
| | Hepatocyte | Necrosis | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 3-10] | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Minimal |
| | [Fibroadenoma TGLs = 1-20] | Fibroadenoma | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1547

TRT#: 4

SEX: Female

DAY ON TEST: 699

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1547

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Approximately two-thirds of level 3 available for evaluation.

| | | | |
|-----------------------------|--|------------------------------|-----------------|
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | Multiple |
| | [Adenoma TGLs = 4-4] | | |
| * Salivary Glands | Parotid GI | Atrophy | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | | Pigment | Minimal |
| | [Extramedullary Hematopoiesis TGLs = 2-12] | | |
| * Trachea | Glands | Cyst | |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1548

TRT#: 4

SEX: Female

DAY ON TEST: 656

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1548

ORGAN AND ACCOUNTABLE SITE STATUS

Fibroadenoma

[Dilation TGLs = 7-9]

[Fibroadenoma TGLs = 7-20]

| | | | |
|-----------------------------|--|-------------------------------|--------------------------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| | Respirat Epith | Hyperplasia | Mild |
| | | Inflammation | Suppurative, Minimal |
| * Ovary | | Atrophy | Moderate |
| * Pancreas | Artery | Inflammation | Chronic Active, Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Salivary Glands | Sublingul GI | Atrophy | Marked |
| Skeletal Muscle | | Degeneration | Moderate |
| * Skin | Subcut Tiss | Squamous Cell Carcinoma | |
| | [Squamous Cell Carcinoma TGLs = 6-21,22] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | White Pulp | Atrophy | Moderate |
| | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Marked |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| * Uterus | | Carcinoma | |
| | Epithelium | Metaplasia | Squamous, Minimal |

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Squamous Cell Carcinoma

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1549

TRT#: 4

SEX: Female

DAY ON TEST: 699

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1549

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Stomach, Glandular
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- Skeletal Muscle
- * Thyroid Gland
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skin
- * Trachea
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Spinal Cord, Thoracic
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hyperplasia
 - Hypertrophy
 - [Degeneration TGLs = 8-7]
- * Bone Marrow
 - Hypercellularity
- * Heart
 - Cardiomyopathy
- * Kidney
 - Nephropathy
 - [Nephropathy TGLs = 2,3-13]
- * Liver
 - Bile Duct
 - Cyst
 - [Cyst TGLs = 7-12]
- * Lung
 - Alveolus
 - Infiltration Cellular
 - [Infiltration Cellular TGLs = 6-10]
- * Mammary Gland
 - Duct
 - Adenocarcinoma
 - Dilation
 - Note: One carcinoma arising within a fibroadenoma.
 - [Adenocarcinoma TGLs = 1-20,21RT]
- Mesentery
 - Artery
 - Inflammation
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Inflammation
- * Ovary
 - Atrophy
 - Cyst
 - Rete Ovarii
 - Hyperplasia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1549

TRT#: 4

SEX: Female

DAY ON TEST: 699

DOSE: 1.5W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1549

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|------------------------------|--------------------------|
| * Pancreas | Artery | Inflammation | Chronic Active, Moderate |
| * Parathyroid Gland | | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 5-4] | | | |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| [Extramedullary Hematopoiesis TGLs = 4-12] | | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Mild |
| | Artery | Inflammation | Chronic Active, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Epithelium | Metaplasia | Squamous, Minimal |

PRIMARY CAUSE OF DEATH - Mammary Gland Adenocarcinoma

Animal Note: TGL 9 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1550

TRT#: 4

SEX: Female

DAY ON TEST: 737

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1550

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------|-----------------------------|--------------------------|----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Esophagus |
| * Harderian Gland | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lung | * Lymph Node, Mesenteric | * Parathyroid Gland |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | |

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------|--|--|
| * Adrenal Cortex | | Degeneration Hyperplasia Hypertrophy Vacuolation, Cytoplasmic | Cystic, Minimal Mild Minimal Mild |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Brain | | Compression | Mild |
| [Compression TGLs = 5-2] | | | |
| * Clitoral Gland | Duct | Dilation Inflammation | Moderate Chronic Active, Moderate |
| [Dilation TGLs = 2-16] | | | |
| * Eye | Retina | Atrophy | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Intestine Large, Cecum | Artery | Inflammation | Chronic Active, Moderate |
| * Intestine Large, Colon | Artery | Inflammation | Chronic Active, Mild |
| * Intestine Large, Rectum | Artery | Inflammation | Chronic Active, Mild |
| * Kidney | | Nephropathy | Chronicprogr, Marked |
| [Nephropathy TGLs = 3-13] | | | |
| * Liver | Bile Duct Artery | Cyst Inflammation | Chronic Active, Mild |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Mild |
| [Dilation TGLs = 1-9,20] | | | |
| Mesentery | Artery | Inflammation | Chronic Active, Moderate |
| * Nerve Trigeminal | | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1550

TRT#: 4

SEX: Female

DAY ON TEST: 737

DOSE: 1.5W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1550

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|------------------------|-------------------------------|--------------------------|
| * Nose | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Marked |
| | Rete Ovarii | Hyperplasia | Minimal |
| * Pancreas | Artery | Inflammation | Chronic Active, Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 4-4] | | |
| * Salivary Glands | Artery | Inflammation | Chronic Active, Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Stomach, Glandular | Artery | Inflammation | Chronic Active, Mild |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Urinary Bladder | Artery | Inflammation | Chronic Active, Moderate |
| * Uterus | | Inflammation | Suppurative, Minimal |
| | Epithelium | Metaplasia | Squamous, Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1656

TRT#: 6

SEX: Female

DAY ON TEST: 545

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1656

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|--|------------------------------|----------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Mild |
| | Nerve | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | [Extramedullary Hematopoiesis TGLs = 3-12] | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| | | Inflammation | Chronic Active, Mild |
| * Thymus | | Hemorrhage | Mild |
| | [Hemorrhage TGLs = 4-6] | | |

PRIMARY CAUSE OF DEATH - Liver Hepatocyte Necrosis

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1657

TRT#: 6

SEX: Female

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1657

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Ovary
- * Stomach, Forestomach
- * Uterus
- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Stomach, Glandular
- * Bone
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
- * Clitoral Gland
- [Dilation TGLs = 2,3-16]
- * Islets, Pancreatic
- * Kidney
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 5-10]
- * Lymph Node, Mandibular
- * Mammary Gland
- [Fibroadenoma TGLs = 4-21]
- * Nerve Trigeminal
- * Nose
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- Duct
- Bile Duct
- Alveolus
- Olfactory Epi
- Hypertrophy
- Dilation
- Inflammation
- Hyperplasia
- Nephropathy
- Hyperplasia
- Mixed Cell Focus
- Infiltration Cellular
- Inflammation
- Hyperplasia
- Proliferation
- Fibroadenoma
- Hyperplasia
- Degeneration
- Accumulation, Hyaline Droplet
- Degeneration
- Degeneration
- Fibrosis
- Pigment
- Minimal
- Marked
- Chronic Active, Minimal
- Minimal
- Chronicprogr, Mild
- Minimal
- Histiocyte, Minimal
- Chronic Active, Minimal
- Lymphocyte, Mild
- Plasma Cell, Mild
- Marked
- Moderate
- Moderate
- Moderate
- Mild
- Minimal
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1657

TRT#: 6

SEX: Female

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1657

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Pars distalis available for evaluation.

[Pigment TGLs = 6-4]

Skeletal Muscle

Degeneration

Minimal

* Skin

Ulcer

Mild

[Ulcer TGLs = 1-20]

* Spinal Cord, Cervical

Degeneration

Minimal

* Spinal Cord, Lumbar

Nerve

Degeneration

Moderate

* Spinal Cord, Thoracic

Degeneration

Minimal

* Spleen

Extramedullary Hematopoiesis

Mild

Pigment

Mild

* Thymus

Atrophy

Mild

* Thyroid Gland

C Cell

Hyperplasia

Moderate

Trigeminal Ganglion

Degeneration

Minimal

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1658

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1658

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Lymph Node, Mesenteric | * Ovary | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

| | | | |
|-----------------------------|---------------------------------------|-----------------------------------|-----------------------|
| * Adrenal Cortex | | Accessory Adrenal Cortical Nodule | |
| | | Hypertrophy | Mild |
| Ear | | Neural Crest Tumor | |
| | [Neural Crest Tumor TGLs = 1-20] | | |
| * Islets, Pancreatic | | Hyperplasia | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 5-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | | Hyperplasia | Moderate |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1658

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1658

ORGAN AND ACCOUNTABLE SITE STATUS

* Uterus

Polyp Stromal

[Polyp Stromal TGLs = 2-16]

Animal Note: TGLs 3,4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56
Test Type: CHRONIC
Route: Whole Body Exposure
Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA
CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018
Time Report Requested: 13:31:21
First Dose M/F: 09/16/12 / 09/16/12
Lab: IIT

ANIMAL ID: 1659

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1659

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Aorta | * Bone | * Brain | * Esophagus |
| * Eye | * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|--------------------------|---|------------------------------|----------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| | | Hypertrophy | Minimal |
| | [Hypertrophy TGLs = 5-7] | | |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Bone Marrow | | Hypercellularity | Moderate |
| * Brain | | | |
| | Note: Olfactory bulbs unavailable for evaluation. | | |
| * Clitoral Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 3-16] | | |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | | Extramedullary Hematopoiesis | Minimal |
| | Bile Duct | Hyperplasia | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 7-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | | Fibroadenoma | Multiple |
| | | Galactocele | |
| | | Hyperplasia | Minimal |
| | [Fibroadenoma TGLs = 1,10-20,21] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1659

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1659

ORGAN AND ACCOUNTABLE SITE STATUS

[Galactocoele TGLs = 2-9.1]

| | | | |
|-----------------------------|---------------|-------------------------------|----------------------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Marked |
| | Bursa | Dilation | Mild |
| | Rete Ovarii | Hyperplasia | Moderate |
| [Dilation TGLs = 11-16] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 8,9-4] | | | |
| * Salivary Glands | Sublingul GI | Atrophy | Moderate |
| | Sublingul GI | Fibrosis | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Moderate |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |
| | | Polyp | Glandular |

[Hyperplasia TGLs = 12-21]

[Polyp TGLs = 4-16]

Animal Note: TGLs 6,13 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1660

TRT#: 6

SEX: Female

DAY ON TEST: 745

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1660

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Esophagus
- * Eye
- * Harderian Gland
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Salivary Glands
- Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea
- Trigeminal Ganglion
- * Uterus

OBSERVATIONS

- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Duct
 - Dilation
 - Minimal
- * Heart
 - Cardiomyopathy
 - Mild
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Clear Cell Focus
 - Fibrosis
 - Mild
 - Bile Duct
 - Bile Duct
 - Hyperplasia
 - Minimal
 - Note: Intestinal metaplasia of extrahepatic bile duct epithelium in region of fibrosis adjacent to pancreas.
 - [Clear Cell Focus TGLs = 3-20]
- * Lung
 - Alveolus
 - Infiltration Cellular
 - Histiocyte, Mild
 - [Infiltration Cellular TGLs = 1-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Lymphocyte, Minimal
 - Proliferation
 - Plasma Cell, Mild
- * Lymph Node, Mesenteric
 - Hyperplasia
 - Lymphocyte, Minimal
- * Mammary Gland
 - Hyperplasia
 - Mild
- * Nerve Trigeminal
 - Degeneration
 - Minimal
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Moderate
- * Ovary
 - Rete Ovarii
 - Cyst
 - Rete Ovarii
 - Hyperplasia
 - Marked
 - Acinus
 - Atrophy
 - Minimal
 - Cyst
- * Pancreas
- * Parathyroid Gland

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1660

TRT#: 6

SEX: Female

DAY ON TEST: 745

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1660

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|------------------------------|----------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| * Urinary Bladder | | Fibrosis | Mild |
| Note: Fibrotic polypoid lesion. | | | |

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1661

TRT#: 6

SEX: Female

DAY ON TEST: 744

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1661

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Esophagus | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

| | | | |
|---------------------------------------|---------------|-------------------------------|------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| [Hypertrophy TGLs = 3-7] | | | |
| * Brain | | Compression | Mild |
| [Compression TGLs = 5-2] | | | |
| * Clitoral Gland | Duct | Dilation | Minimal |
| [Dilation TGLs = 10-16] | | | |
| * Eye | Retina | Atrophy | Minimal |
| * Harderian Gland | | Inflammation | Granulomatous, Minimal |
| * Islets, Pancreatic | | Hyperplasia | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| [Infiltration Cellular TGLs = 4-10] | | | |
| * Mammary Gland | Duct | Dilation | Mild |
| | | Fibroadenoma | |
| | | Galactocele | |
| [Fibroadenoma TGLs = 1-20] | | | |
| [Galactocele TGLs = 9-9] | | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |
| | Rete Ovarii | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1661

TRT#: 6

SEX: Female

DAY ON TEST: 744

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1661

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|---|--------------------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma Cyst | |
| [Adenoma TGLs = 6-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis Pigment | Moderate Mild |
| * Thymus | | Atrophy Hyperplasia | Minimal Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | Endometrium | Cyst Hyperplasia | Cystic, Mild |
| [Cyst TGLs = 7-16] | | | |
| [Hyperplasia TGLs = 8-20] | | | |

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1662

TRT#: 6

SEX: Female

DAY ON TEST: 744

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1662

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Pancreas
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Skin
- * Thyroid Gland
- * Bone
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hyperplasia
 - Hypertrophy
 - Cystic, Mild
 - Mild
 - Minimal
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
 - Marked
 - Chronic Active, Mild
- [Dilation TGLs = 5,6-16]
- * Islets, Pancreatic
 - Adenoma
- * Kidney
 - Nephropathy
 - Basophilic Focus
 - Mixed Cell Focus
 - Infiltration Cellular
 - Chronicprogr, Minimal
- * Liver
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 8-10]
 - Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Erythrophagocytosis
 - Hyperplasia
 - Proliferation
 - Mild
 - Lymphocyte, Mild
 - Plasma Cell, Mild
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - Mild
 - Multiple
- [Fibroadenoma TGLs = 1,2,3,4-20,21,22,23]
- * Nerve Trigeminal
 - Degeneration
 - Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1662

TRT#: 6

SEX: Female

DAY ON TEST: 744

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1662

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------|-------------------------------|---------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Marked |
| | Periovarn Tiss | Cyst | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | Epithelium | Metaplasia | Squamous, Mild |

Animal Note: TGL 9 = NCL (No Corresponding Lesion)

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1663

TRT#: 6

SEX: Female

DAY ON TEST: 559

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1663

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Heart
- * Intestine Small, Duodenum
- * Nerve Trigeminal
- * Thyroid Gland
- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Trachea
- * Bone
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Skin
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Spinal Cord, Cervical

MISSING

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Medulla
- * Bone Marrow
- * Brain
- * Clitoral Gland
- * Eye
- * Harderian Gland
- * Kidney
- * Liver
- * Lung
- Lymph Node
- * Lymph Node, Mandibular
- * Lymph Node, Mesenteric
- Hyperplasia
- Hypercellularity
- Pigment
- Dilation
- Inflammation
- Inflammation
- Lymphoma Malignant
- Lymphoma Malignant
- Nephropathy
- Lymphoma Malignant
- Vacuolation, Cytoplasmic
- Infiltration Cellular
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Minimal
- Marked
- Minimal
- Moderate
- Acute, Mild
- Acute, Mild
- Chronicprogr, Mild
- Moderate
- Histiocyte, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1663

TRT#: 6

SEX: Female

DAY ON TEST: 559

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1663

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------------------|---------------------------------|--|---------------------|
| [Lymphoma Malignant TGLs = 4-15] | | | |
| * Mammary Gland | Duct | Dilation Fibroadenoma Lymphoma Malignant | Mild |
| [Fibroadenoma TGLs = 12-20] | | | |
| * Mesentery | | Lymphoma Malignant | |
| * Nose | Olfactory Epi Respirat Epith | Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet | Moderate Minimal |
| * Ovary | | Lymphoma Malignant | |
| * Pancreas | | Lymphoma Malignant | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| [Hyperplasia TGLs = 10-4] | | | |
| * Salivary Glands | Parotid GI | Atrophy Lymphoma Malignant | Moderate |
| Skeletal Muscle | | Degeneration | Mild |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Lymphoma Malignant | |
| [Lymphoma Malignant TGLs = 5,6-12] | | | |
| * Stomach, Forestomach | | Lymphoma Malignant Ulcer | Minimal |
| * Stomach, Glandular | | Lymphoma Malignant | |
| * Thymus | | Lymphoma Malignant | |
| * Uterus | | Lymphoma Malignant | |

PRIMARY CAUSE OF DEATH - Spleen Lymphoma Malignant

Animal Note: TGLs 2,8,9 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1665

TRT#: 6

SEX: Female

DAY ON TEST: 531

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1665

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Nerve Trigeminal |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Spinal Cord, Thoracic |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | * Uterus | |

OBSERVATIONS

- | | | | |
|---|---------------|-------------------------------|-----------------------|
| * Bone Marrow | | Hypercellularity | Marked |
| * Brain | | | |
| Note: Olfactory bulbs not available for evaluation. | | | |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Eosinophilic Focus | |
| * Lung | | Congestion | Minimal |
| | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| [Congestion TGLs = 3-10] | | | |
| * Mammary Gland | | Fibroadenoma | |
| | | Hyperplasia | Marked |
| [Fibroadenoma TGLs = 1-20] | | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Cyst | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1665

TRT#: 6

SEX: Female

DAY ON TEST: 531

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1665

ORGAN AND ACCOUNTABLE SITE STATUS

[Atrophy TGLs = 2-6]

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1667

TRT#: 6

SEX: Female

DAY ON TEST: 669

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1667

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Ovary
- Skeletal Muscle
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Stomach, Glandular
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Spinal Cord, Thoracic
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Clitoral Gland
- * Kidney
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 3-10]
- * Lymph Node, Mandibular
- * Mammary Gland
- [Fibroadenoma TGLs = 1,2-20]
- * Nerve Trigeminal
- * Nose
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Salivary Glands
- * Spinal Cord, Lumbar
- * Spleen
- Duct
- Hepatocyte
- Alveolus
- Hyperplasia
- Hypercellularity
- Dilation
- Nephropathy
- Eosinophilic Focus
- Mixed Cell Focus
- Necrosis
- Infiltration Cellular
- Hyperplasia
- Proliferation
- Fibroadenoma
- Hyperplasia
- Degeneration
- Accumulation, Hyaline Droplet
- Degeneration
- Degeneration
- Fibrosis
- Degeneration
- Extramedullary Hematopoiesis
- Minimal
- Marked
- Moderate
- Chronicprogr, Minimal
- Minimal
- Histiocyte, Minimal
- Lymphocyte, Minimal
- Plasma Cell, Moderate
- Multiple
- Marked
- Minimal
- Moderate
- Mild
- Mild
- Mild
- Moderate
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1667

TRT#: 6

SEX: Female

DAY ON TEST: 669

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1667

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------|--------|---------------|----------|
| * Thymus | | Pigment | Minimal |
| * Thyroid Gland | C Cell | Atrophy | Mild |
| * Uterus | | Hyperplasia | Moderate |
| | | Polyp Stromal | |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1668

TRT#: 6

SEX: Female

DAY ON TEST: 631

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1668

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Clitoral Gland
- * Heart
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Stomach, Glandular
- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Thyroid Gland
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Liver
- Skeletal Muscle
- * Trachea
- * Brain
- * Harderian Gland
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Skin
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Intestine Large, Rectum

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------------|---------------------|
| * Adrenal Cortex | | Vacuolation, Cytoplasmic | Minimal |
| * Bone Marrow | | Hypercellularity | Marked |
| * Intestine Large, Colon | | Histiocytic Sarcoma | Metastatic (Uterus) |
| | [Histiocytic Sarcoma TGLs = 5,6-20] | | |
| * Kidney | Pelvis | Dilation | Mild |
| | [Dilation TGLs = 8-13] | Nephropathy | Chronicprogr, Mild |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 2-10] | | |
| * Mammary Gland | Duct | Dilation | Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Marked |
| | Rete Ovarii | Hyperplasia | Minimal |
| * Pancreas | Acinus | Atrophy | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| | Pars Distalis | Vacuolation, Cytoplasmic | Minimal |
| * Salivary Glands | Parotid GI | Atrophy | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1668

TRT#: 6

SEX: Female

DAY ON TEST: 631

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1668

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------------------------------------|------------------------------|-----------|
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Moderate |
| | Red Pulp | Atrophy | Marked |
| | | Extramedullary Hematopoiesis | Minimal |
| | [Atrophy TGLs = 4-12] | | |
| | [Atrophy TGLs = 4-12] | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| | | Ulcer | Moderate |
| * Thymus | | Atrophy | Marked |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Histiocytic Sarcoma | |
| | | Polyp | Glandular |
| | [Histiocytic Sarcoma TGLs = 7-21] | | |

PRIMARY CAUSE OF DEATH - Uterus Histiocytic Sarcoma

Animal Note: TGLs 1,3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1670

TRT#: 6

SEX: Female

DAY ON TEST: 739

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1670

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Cervical
- Trigeminal Ganglion
- * Aorta
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - [Hypertrophy TGLs = 2-7]
- * Brain
 - [Compression TGLs = 8-2]
- * Clitoral Gland
- * Harderian Gland
- * Heart
- * Kidney
 - [Nephropathy TGLs = 1-13]
- * Liver
- * Lung
 - [Infiltration Cellular TGLs = 4-10]
- * Mammary Gland
- Mesentery
- * Nerve Trigeminal
- * Nose
- * Ovary
- Hypertrophy
- Vacuolation, Cytoplasmic
- Compression
- Pineal Gland
- Vacuolation, Cytoplasmic
- Duct
- Dilation
- Inflammation
- Atrophy
- Cardiomyopathy
- Nephropathy
- Basophilic Focus
- Mixed Cell Focus
- Infiltration Cellular
- Alveolus
- Duct
- Artery
- Dilation
- Inflammation
- Degeneration
- Accumulation, Hyaline Droplet
- Accumulation, Hyaline Droplet
- Atrophy
- Mild
- Mild
- Minimal
- Minimal
- Minimal
- Chronic Active, Mild
- Chronicprogr, Mild
- Histiocyte, Mild
- Mild
- Chronic Active, Mild
- Mild
- Moderate
- Minimal
- Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1670

TRT#: 6

SEX: Female

DAY ON TEST: 739

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1670

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|--------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 5,6,7-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |

Animal Note: TGLs 3,9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1671

TRT#: 6

SEX: Female

DAY ON TEST: 699

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1671

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Thoracic
- * Trachea
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skin
- * Stomach, Glandular
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Spinal Cord, Cervical
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Clitoral Gland
- Note: Pyogranuloma formation.
- * Harderian Gland
- * Kidney
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 2-10]
- * Lymph Node, Mandibular
- * Mammary Gland
- [Fibroadenoma TGLs = 3,4-20,21]
- * Nerve Trigeminal
- * Nose
- * Ovary
- Alveolus
- Duct
- Rete Ovarii
- Hyperplasia
- Hypercellularity
- Inflammation
- Atrophy
- Inflammation
- Nephropathy
- Basophilic Focus
- Extramedullary Hematopoiesis
- Mixed Cell Focus
- Infiltration Cellular
- Proliferation
- Dilation
- Fibroadenoma
- Hyperplasia
- Degeneration
- Accumulation, Hyaline Droplet
- Accumulation, Hyaline Droplet
- Atrophy
- Hyperplasia
- Minimal
- Marked
- Chronic Active, Moderate
- Minimal
- Chronic Active, Minimal
- Chronicprogr, Minimal
- Minimal
- Histiocyte, Minimal
- Plasma Cell, Minimal
- Mild
- Multiple
- Mild
- Mild
- Moderate
- Minimal
- Moderate
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1671

TRT#: 6

SEX: Female

DAY ON TEST: 699

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1671

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|-------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGLs 1,6 = NCL (No Corresponding Lesion)

Animal Note: TGL 5 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1672

TRT#: 6

SEX: Female

DAY ON TEST: 503

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1672

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric | * Nerve Trigeminal |
| * Pancreas | * Pituitary Gland | * Salivary Glands | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- * Parathyroid Gland

OBSERVATIONS

- | | | | |
|--------------------------|--------------------------------|-------------------------------|----------------------------|
| * Adrenal Cortex | | Hyperplasia | Mild |
| * Bone Marrow | | Hypercellularity | Marked |
| * Clitoral Gland | Duct | Dilation | Moderate |
| | [Dilation TGLs = 2,3-16] | | |
| * Heart | | Adenocarcinoma | Metastatic (Mammary Gland) |
| | [Adenocarcinoma TGLs = 5-11] | | |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Extramedullary Hematopoiesis | Mild |
| | | Infiltration Cellular | Mixed Cell, Mild |
| | Kupffer Cell | Pigment | Mild |
| * Lung | | Adenocarcinoma | Metastatic (Mammary Gland) |
| | [Adenocarcinoma TGLs = 6-10] | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | | Adenocarcinoma | |
| | [Adenocarcinoma TGLs = 1-20] | Galactocele | |
| | [Galactocele TGLs = 4-9] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Marked |
| * Ovary | | Atrophy | Mild |
| | | Cyst | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1672

TRT#: 6

SEX: Female

DAY ON TEST: 503

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1672

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|-------------|--------------|----------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary G1 | | | |
| Note: Pars distalis available for evaluation. | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Pigment | Mild |
| * Thymus | | Hyperplasia | Epithelial, Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | | Inflammation | Suppurative, Minimal |
| | Epithelium | Metaplasia | Squamous, Mild |

PRIMARY CAUSE OF DEATH - Mammary Gland Adenocarcinoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1673

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1673

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Ovary | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | * Uterus |

OBSERVATIONS

| | | | |
|---|---------------------------------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| Note: One of pair available for evaluation. | | | |
| * Clitoral Gland | Duct | Dilation | Marked |
| | | Inflammation | Chronic Active, Minimal |
| | [Dilation TGLs = 2-16] | | |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 4-10] | | |
| * Mammary Gland | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 1-20] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1673

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1673

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------|----------------|-------------|---------------------|
| * Thymus | | Pigment | Minimal |
| | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| Tissue NOS | Abdominal, Fat | Necrosis | Mild |
| [Necrosis TGLs = 3-21] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1674

TRT#: 6

SEX: Female

DAY ON TEST: 741

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1674

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Skin
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Spinal Cord, Cervical
- Trigeminal Ganglion
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - [Hypertrophy TGLs = 3-7]
- * Adrenal Medulla
- * Clitoral Gland
 - [Dilation TGLs = 2-16]
- * Kidney
- * Liver
- * Lung
 - [Infiltration Cellular TGLs = 5-10]
- * Lymph Node, Mandibular
- * Mammary Gland
 - [Fibroadenoma TGLs = 1-20]
- * Nerve Trigeminal
- * Nose
- * Ovary
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Spinal Cord, Lumbar
- Degeneration
- Hypertrophy
- Hyperplasia
- Dilation
- Inflammation
- Nephropathy
- Mixed Cell Focus
- Infiltration Cellular
- Hyperplasia
- Dilation
- Fibroadenoma
- Degeneration
- Accumulation, Hyaline Droplet
- Accumulation, Hyaline Droplet
- Atrophy
- Degeneration
- Degeneration
- Degeneration
- Cystic, Moderate
- Mild
- Minimal
- Marked
- Chronic Active, Moderate
- Chronicprogr, Minimal
- Histiocyte, Minimal
- Lymphocyte, Minimal
- Minimal
- Mild
- Mild
- Minimal
- Marked
- Mild
- Mild
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1674

TRT#: 6

SEX: Female

DAY ON TEST: 741

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1674

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------|-------------|------------------------------|---------------------|
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Tissue NOS | Fat | Necrosis | Moderate |
| [Necrosis TGLs = 4-21] | | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1675

TRT#: 6

SEX: Female

DAY ON TEST: 739

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1675

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Skin
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Glandular
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- Skeletal Muscle
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Degeneration
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Hyperplasia
- * Bone Marrow
 - Hypercellularity
- * Clitoral Gland
 - Duct
 - Dilation
- * Kidney
 - Nephropathy
 - Angiectasis
 - Mixed Cell Focus
- * Liver
 - Hepatocyte
 - Necrosis
- * Lung
 - [Angiectasis TGLs = 6-22]
 - Alveolus
 - [Infiltration Cellular TGLs = 5-10]
 - Infiltration Cellular
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - Hyperplasia
- * Nerve Trigeminal
 - [Fibroadenoma TGLs = 2,3-20,21]
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1675

TRT#: 6

SEX: Female

DAY ON TEST: 739

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1675

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------|------------------------------|---------------------|
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Mild |
| | Cervix | Polyp Stromal | |

[Hyperplasia TGLs = 4-16]

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1676

TRT#: 6

SEX: Female

DAY ON TEST: 739

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1676

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Parathyroid Gland | | Hyperplasia | Focal, Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| [Hyperplasia TGLs = 6-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |
| | | Inflammation | Suppurative, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1677

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1677

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Clitoral Gland
- * Esophagus
- * Eye
- * Harderian Gland
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Liver
- * Lymph Node, Mandibular
- * Lymph Node, Mesenteric
- * Pancreas
- * Parathyroid Gland
- * Salivary Glands
- * Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Stomach, Forestomach
- * Stomach, Glandular
- * Trachea
- Trigeminal Ganglion
- * Urinary Bladder

OBSERVATIONS

- * Heart
- Cardiomyopathy
- Minimal
- * Islets, Pancreatic
- Hyperplasia
- Minimal
- * Kidney
- Nephropathy
- Chronicprogr, Minimal
- * Lung
- Congestion
- Mild
- Alveolus
- Infiltration Cellular
- Histiocyte, Mild
- [Infiltration Cellular TGLs = 1-10]
- * Mammary Gland
- Duct
- Dilation
- Minimal
- * Nerve Trigeminal
- Degeneration
- Mild
- * Nose
- Olfactory Epi
- Accumulation, Hyaline Droplet
- Moderate
- * Ovary
- Atrophy
- Marked
- Cyst
- * Peripheral Nerve, Sciatic
- Degeneration
- Mild
- * Peripheral Nerve, Tibial
- Degeneration
- Mild
- * Pituitary Gland
- Pars Distalis
- Cyst
- Pars Distalis
- Hyperplasia
- Minimal
- * Spinal Cord, Lumbar
- Nerve
- Degeneration
- Mild
- * Spinal Cord, Thoracic
- Degeneration
- Mild
- * Spleen
- Extramedullary Hematopoiesis
- Mild
- Pigment
- Mild
- * Thymus
- Atrophy
- Minimal
- Cyst

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1677

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1677

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------|-------------|--------------|----------------------|
| * Thyroid Gland | C Cell | Hyperplasia | Epithelial, Minimal |
| * Uterus | Endometrium | Hyperplasia | Marked |
| | | Hyperplasia | Cystic, Mild |
| | | Inflammation | Suppurative, Minimal |
| | Epithelium | Metaplasia | Squamous, Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1678

TRT#: 6

SEX: Female

DAY ON TEST: 744

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1678

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lung
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Aorta
- * Clitoral Gland
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Skin
- * Thymus
- * Bone Marrow
- * Eye
- * Intestine Small, Duodenum
- * Liver
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
- * Harderian Gland
- * Heart
- * Kidney
- * Lymph Node, Mandibular
- * Mammary Gland
- * Nerve Trigeminal
- * Nose
- * Ovary
- * Pancreas
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Spinal Cord, Lumbar
- * Spinal Cord, Thoracic
- * Spleen
- * Thyroid Gland
- * Uterus
- Ventricle Rgt
- Olfactory Epi
- Rete Ovarii
- Nerve
- C Cell
- Hypertrophy
- Atrophy
- Cardiomyopathy
- Nephropathy
- Hyperplasia
- Proliferation
- Hyperplasia
- Degeneration
- Accumulation, Hyaline Droplet
- Atrophy
- Hyperplasia
- Ectopic Liver
- Degeneration
- Degeneration
- Degeneration
- Degeneration
- Extramedullary Hematopoiesis
- Pigment
- Hyperplasia
- Dilation
- Inflammation
- Minimal
- Minimal
- Minimal
- Chronicprogr, Minimal
- Lymphocyte, Minimal
- Plasma Cell, Mild
- Minimal
- Mild
- Minimal
- Marked
- Minimal
- Mild
- Mild
- Mild
- Mild
- Moderate
- Mild
- Minimal
- Marked
- Suppurative, Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1678

TRT#: 6

SEX: Female

DAY ON TEST: 744

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1678

ORGAN AND ACCOUNTABLE SITE STATUS

[Dilation TGLs = 1-16.1]

[Inflammation TGLs = 2-16.1RC]

Animal Note: TGLs 3,4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1679

TRT#: 6

SEX: Female

DAY ON TEST: 674

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1679

ORGAN AND ACCOUNTABLE SITE STATUS

Note: One of pair available for evaluation.

| | | | |
|-------------------------------------|---------------|---------------------|-----------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Salivary Glands | Parotid GI | Atrophy | Marked |
| Skeletal Muscle | | Degeneration | Moderate |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Marked |
| | | Histiocytic Sarcoma | |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Marked |
| * Thyroid Gland | C Cell | Adenoma | |
| [Adenoma TGLs = 11-8] | | | |
| * Uterus | | Histiocytic Sarcoma | |
| | | Inflammation | Acute, Moderate |
| [Histiocytic Sarcoma TGLs = 6-20] | | | |

PRIMARY CAUSE OF DEATH - Uterus Histiocytic Sarcoma

Animal Note: TGLs 3,5 = NCL (No Corresponding Lesion)
TGL 5 too autolyzed to evaluate

Animal Note: TGL 10 = NST (No Section Taken)

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1681

TRT#: 6

SEX: Female

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1681

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1682

TRT#: 6

SEX: Female

DAY ON TEST: 741

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1682

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|-------------------------------|-------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | Rete Ovarii | Atrophy | Marked |
| | Acinus | Hyperplasia | Minimal |
| * Pancreas | | Atrophy | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thyroid Gland | C Cell | Carcinoma | |
| [Carcinoma TGLs = 7-8] | | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |

Animal Note: TGLs 6,9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1683

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1683

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Ovary
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Skin
- * Thyroid Gland
- * Uterus
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Clitoral Gland
- Duct
- Note: One of pair available for evaluation.
- * Harderian Gland
- * Heart
- * Kidney
- * Liver
- * Lung
- Bile Duct
- Epithlm Alvlus
- Alveolus
- [Infiltration Cellular TGLs = 1-10]
- * Mammary Gland
- * Nerve Trigeminal
- * Nose
- * Pancreas
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Spinal Cord, Lumbar
- * Spinal Cord, Thoracic
- * Spleen
- Hypertrophy
- Dilation
- Inflammation
- Atrophy
- Cardiomyopathy
- Nephropathy
- Hyperplasia
- Hyperplasia
- Infiltration Cellular
- Hyperplasia
- Degeneration
- Accumulation, Hyaline Droplet
- Hyperplasia
- Degeneration
- Degeneration
- Degeneration
- Degeneration
- Degeneration
- Extramedullary Hematopoiesis
- Pigment
- Minimal
- Moderate
- Chronic Active, Minimal
- Minimal
- Minimal
- Chronicprogr, Minimal
- Minimal
- Moderate
- Histiocyte, Minimal
- Mild
- Moderate
- Moderate
- Minimal
- Mild
- Mild
- Moderate
- Minimal
- Mild
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1683

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1683

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Mild

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1684

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1684

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|-------------------------------|---------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Cyst | |
| [Cyst TGLs = 7-16] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Dilation | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1685

TRT#: 6

SEX: Female

DAY ON TEST: 741

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1685

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------|-------------------------------|----------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | Rete Ovarii | Adenoma | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Cyst | |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Tissue NOS | Abdominal, Fat | Lipoma | |

[Lipoma TGLs = 5-23]

Animal Note: TGLs 6,8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1686

TRT#: 6

SEX: Female

DAY ON TEST: 739

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1686

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Pancreas | * Salivary Glands | Skeletal Muscle |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Hypertrophy | Moderate |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Basophilic Focus | |
| | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Moderate |
| | [Infiltration Cellular TGLs = 3-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Minimal |
| | | Fibroadenoma | |
| | | Galactocele | |
| | [Fibroadenoma TGLs = 1-20] | | |
| | [Galactocele TGLs = 2-9.1] | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Marked |
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1686

TRT#: 6

SEX: Female

DAY ON TEST: 739

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1686

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------------|------------------------------|---------------------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1687

TRT#: 6

SEX: Female

DAY ON TEST: 268

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1687

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Nerve Trigeminal
- * Salivary Glands
- * Spinal Cord, Lumbar
- * Thyroid Gland
- * Uterus
- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Liver
- * Pancreas
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Trachea
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Skin
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Urinary Bladder

INSUFFICIENT TISSUE

- * Peripheral Nerve, Tibial

OBSERVATIONS

- * Bone Marrow
- * Clitoral Gland
- * Lung
- Lymph Node
- [Proliferation TGLs = 2-20]
- * Mammary Gland
- [Fibroadenoma TGLs = 1-20]
- * Nose
- Note: Approximately one-half of level 3 is not present
- * Ovary
- * Peripheral Nerve, Sciatic
- Note: Longitudinal section available for evaluation.
- * Spleen
- Duct
- Alveolus
- Iliac
- Olfactory Epi
- Hypercellularity
- Dilation
- Inflammation
- Infiltration Cellular
- Proliferation
- Fibroadenoma
- Inflammation
- Accumulation, Hyaline Droplet
- Atrophy
- Cyst
- Degeneration
- Extramedullary Hematopoiesis
- Pigment
- Moderate
- Minimal
- Chronic Active, Mild
- Histiocyte, Minimal
- Plasma Cell, Moderate
- Chronic Active, Mild
- Mild
- Moderate
- Minimal
- Mild
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1687

TRT#: 6

SEX: Female

DAY ON TEST: 268

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1687

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Minimal

Cyst

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1689

TRT#: 6

SEX: Female

DAY ON TEST: 707

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1689

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Spinal Cord, Cervical
- * Trachea
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skeletal Muscle
- * Stomach, Glandular
- * Bone Marrow
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skin
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hypertrophy
 - Compression
- * Brain
 - Dilation
 - Inflammation
 - Nephropathy
- * Clitoral Gland
 - Duct
 - Infiltration Cellular
- * Kidney
 - Alveolus
 - Infiltration Cellular
- * Liver
 - Infiltration Cellular
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 4-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Mammary Gland
 - Duct
 - Adenocarcinoma
 - Dilation
 - Galactocele
 - [Adenocarcinoma TGLs = 1-20]
 - [Galactocele TGLs = 5-9]
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Ovary
 - Atrophy
- * Parathyroid Gland
 - Fibrosis
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1689

TRT#: 6

SEX: Female

DAY ON TEST: 707

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1689

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------------|---------------|------------------------------|---------------------|
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 3,6,8-1,2,4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Moderate |
| [Atrophy TGLs = 7-12] | | | |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 2,9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1690

TRT#: 6

SEX: Female

DAY ON TEST: 745

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1690

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- Skeletal Muscle
- * Trachea
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skin
- Trigeminal Ganglion
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Stomach, Glandular
- * Urinary Bladder
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - [Atrophy TGLs = 2-7]
 - * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
 - * Clitoral Gland
 - Duct
 - * Eye
 - Retina
 - * Harderian Gland
 - * Kidney
 - * Liver
 - Bile Duct
 - * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 4-10]
 - * Lymph Node, Mandibular
 - * Mammary Gland
 - [Adenocarcinoma TGLs = 1-20]
 - * Nerve Trigeminal
 - * Nose
 - Olfactory Epi
 - * Ovary
 - * Pancreas
 - Acinus
 - * Peripheral Nerve, Sciatic
 - * Peripheral Nerve, Tibial
- | | | |
|--|-------------------------------|-------------------------|
| | Atrophy | Marked |
| | Pigment | Moderate |
| | Dilation | Minimal |
| | Inflammation | Chronic Active, Minimal |
| | Atrophy | Minimal |
| | Atrophy | Minimal |
| | Nephropathy | Chronicprogr, Minimal |
| | Fibrosis | Minimal |
| | Infiltration Cellular | Histiocyte, Mild |
| | Hyperplasia | Lymphocyte, Minimal |
| | Proliferation | Plasma Cell, Mild |
| | Adenocarcinoma | |
| | Degeneration | Mild |
| | Accumulation, Hyaline Droplet | Moderate |
| | Atrophy | Marked |
| | Atrophy | Minimal |
| | Degeneration | Minimal |
| | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1690

TRT#: 6

SEX: Female

DAY ON TEST: 745

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1690

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|------------------------|---------------|---------------------|
| * Pituitary Gland | | Atrophy | Moderate |
| | | Pigment | Moderate |
| | [Atrophy TGLs = 5-4] | | |
| | [Pigment TGLs = 6-4] | | |
| * Salivary Glands | Duct, Parotid GI | Fibrosis | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Pigment | Moderate |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Minimal |
| * Thymus | | Hyperplasia | Epithelial, Minimal |
| * Uterus | | Polyp Stromal | Multiple |

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1691

TRT#: 6

SEX: Female

DAY ON TEST: 678

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1691

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|--------------|------------------------------|
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Carcinoma | |
| [Carcinoma TGLs = 6-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spleen | Red Pulp | Atrophy | Minimal |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| Trigeminal Ganglion | | Carcinoma | Metastatic (Pituitary Gland) |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Carcinoma

Animal Note: TGLs 1,2,3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1692

TRT#: 6

SEX: Female

DAY ON TEST: 741

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1692

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Ovary
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Thyroid Gland
- * Bone Marrow
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
- * Clitoral Gland
- * Eye
- * Kidney
- * Liver
- [Angiectasis TGLs = 5-12]
- * Lung
- [Infiltration Cellular TGLs = 4-10]
- Lymph Node
- [Hyperplasia TGLs = 1-20]
- [Pigment TGLs = 2-20]
- * Lymph Node, Mandibular
- * Mammary Gland
- * Nose
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- Duct
- Duct
- Retina
- Alveolus
- Inguinal
- Inguinal
- Olfactory Epi
- Hyperplasia
- Hypertrophy
- Dilation
- Hyperplasia
- Atrophy
- Nephropathy
- Angiectasis
- Mixed Cell Focus
- Infiltration Cellular
- Hyperplasia
- Pigment
- Hyperplasia
- Proliferation
- Hyperplasia
- Accumulation, Hyaline Droplet
- Degeneration
- Degeneration
- Mild
- Minimal
- Marked
- Minimal
- Minimal
- Chronicprogr, Minimal
- Minimal
- Histiocyte, Mild
- Lymphocyte, Minimal
- Minimal
- Lymphocyte, Minimal
- Plasma Cell, Mild
- Mild
- Mild
- Mild
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1692

TRT#: 6

SEX: Female

DAY ON TEST: 741

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1692

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|---------------|------------------------------|-----------------|
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Ectopic Parathyroid Gland | |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Cervix | Hyperplasia | Stromal, Marked |

[Hyperplasia TGLs = 6-20]

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1693

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1693

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- Trigeminal Ganglion
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Degeneration
 - Hypertrophy
 - [Degeneration TGLs = 5-7]
- * Adren Medulla
 - Note: One of pair available for evaluation.
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
 - [Dilation TGLs = 1,2-16]
- * Heart
 - Cardiomyopathy
- * Kidney
 - Renal Tubule
 - Adenoma
 - Nephropathy
 - [Adenoma TGLs = 6-20]
- * Liver
 - Clear Cell Focus
- * Lung
 - Epithlm Alvlus
 - Alveolus
 - Infiltration Cellular
 - [Infiltration Cellular TGLs = 7-10]
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Hyperplasia
 - Proliferation
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1693

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1693

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroadenoma TGLs = 3-20]

| | | | |
|-----------------------------|---------------|-------------------------------|-----------------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Cyst | |
| | Pars Distalis | Hyperplasia | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | | Polyp Stromal | |

[Polyp Stromal TGLs = 4-16]

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1695

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1695

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Brain | * Esophagus | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Salivary Glands |
| Skeletal Muscle | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

MISSING

Trigeminal Ganglion

INSUFFICIENT TISSUE

* Nerve Trigeminal

OBSERVATIONS

- | | | | |
|--------------------------|--|-------------------------------|-------------------------|
| * Clitoral Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Eye | Retina | Atrophy | Minimal |
| * Islets, Pancreatic | | Hyperplasia | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | Bile Duct | Fibrosis | Moderate |
| | Note: Intestinal metaplasia of extrahepatic bile ducts within region of fibrosis adjacent to duodenum. | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 6-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Minimal |
| * Mammary Gland | Duct | Dilation | Mild |
| | | Fibroadenoma | Multiple |
| | [Fibroadenoma TGLs = 1,2,4-20,21,23] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| | Note: Incomplete septum Level 2. | | |
| * Ovary | | Atrophy | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1695

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1695

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|------------------------------|---------------------|
| * Pancreas | Periductal | Cholangiofibrosis | Mild |
| * Parathyroid Gland | | Hyperplasia | Focal, Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Skin | | Keratoacanthoma | |
| Note: Keratoacanthoma arising within an epithelial cyst. [Keratoacanthoma TGLs = 3-22] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |
| [Cyst TGLs = 5-16] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1696

TRT#: 6

SEX: Female

DAY ON TEST: 739

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1696

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- Skeletal Muscle
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skin
- Trigeminal Ganglion
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Stomach, Forestomach
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Salivary Glands
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - [Degeneration TGLs = 9-7]
 - [Hypertrophy TGLs = 10-7]
- * Adrenal Medulla
- * Bone Marrow
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - [Dilation TGLs = 6-16]
- * Kidney
- * Liver
 - [Angiectasis TGLs = 8-12]
- * Lung
 - [Infiltration Cellular TGLs = 14-10]
- Lymph Node
 - [Erythrophagocytosis TGLs = 15-24]
- * Lymph Node, Mandibular
- * Mammary Gland
 - [Dilation TGLs = 5-9]
 - [Fibroadenoma TGLs = 2,3,4-20,21,22]

Degeneration
Hypertrophy

Cystic, Mild
Mild

Hyperplasia
Hypercellularity

Minimal
Moderate

Dilation

Moderate

Nephropathy
Angiectasis

Chronicprogr, Minimal
Moderate

Infiltration Cellular

Histiocyte, Mild

Erythrophagocytosis

Moderate

Hyperplasia
Proliferation
Dilation
Fibroadenoma

Lymphocyte, Minimal
Plasma Cell, Minimal
Mild
Multiple

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1696

TRT#: 6

SEX: Female

DAY ON TEST: 739

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1696

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|-------------------------------|----------------------|
| Mesentery | | Necrosis | Minimal |
| [Necrosis TGLs = 7-23] | | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Marked |
| * Pancreas | Acinus | Atrophy | Minimal |
| * Parathyroid Gland | | Fibrosis | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| [Hyperplasia TGLs = 16-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | | Inflammation | Suppurative, Minimal |

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGLs 11, 12 and 13 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1698

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1698

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Aorta
- * Clitoral Gland
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Ovary
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Thyroid Gland
- * Bone Marrow
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Harderian Gland
 - Atrophy
 - Inflammation
- * Heart
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- * Liver
 - Clear Cell Focus
- * Lung
 - Alveolus
 - Infiltration Cellular
 - Inflammation
- * Lymph Node, Mandibular
 - [Infiltration Cellular TGLs = 2-10]
 - Erythrophagocytosis
 - Hyperplasia
 - Proliferation
- * Mammary Gland
 - Hyperplasia
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration
- * Pituitary Gland
 - Pars Distalis
 - Adenoma
- * Spinal Cord, Lumbar
 - [Adenoma TGLs = 3-4]
 - Nerve
 - Degeneration
- * Spinal Cord, Thoracic
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1698

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1698

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------|-------------------------------|------------------------------|------|
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Thymoma Benign | |
| | [Thymoma Benign TGLs = 1-6] | | |
| * Uterus | | Polyp Stromal | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1699

TRT#: 6

SEX: Female

DAY ON TEST: 704

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1699

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Intestine Small, Duodenum
- * Skin
- * Aorta
- * Harderian Gland
- * Intestine Small, Ileum
- * Trachea
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Rectum
- * Pituitary Gland

MISSING

- * Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex
Lymphoma Malignant
Vacuolation, Cytoplasmic
Minimal
- * Bone Marrow
Hypercellularity
Marked
- * Brain
Lymphoma Malignant
- [Lymphoma Malignant TGLs = 11-2]
- * Clitoral Gland
Duct
Dilation
Moderate
- * Heart
Lymphoma Malignant
- * Intestine Large, Colon
Diverticulum
Mild
- [Diverticulum TGLs = 10-20]
- * Islets, Pancreatic
Adenoma
- * Kidney
Lymphoma Malignant
Nephropathy
Chronicprogr, Mild
- * Liver
Lymphoma Malignant
Vacuolation, Cytoplasmic
Marked
- [Vacuolation, Cytoplasmic TGLs = 5-12]
- * Lung
Alveolus
Infiltration Cellular
Histiocyte, Minimal
- [Infiltration Cellular TGLs = 8-10]
- Lymph Node
Mediastinal
Lymphoma Malignant
- [Lymphoma Malignant TGLs = 7-20]
- * Lymph Node, Mandibular
Lymphoma Malignant
- * Lymph Node, Mesenteric
Lymphoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1699

TRT#: 6

SEX: Female

DAY ON TEST: 704

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1699

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--------------------------------------|--|-----------------|
| | [Lymphoma Malignant TGLs = 12-15] | | |
| * Mammary Gland | Duct | Dilation Lymphoma Malignant | Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Respirat Epith Olfactory Epi | Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet | Minimal Mild |
| * Ovary | | Atrophy Lymphoma Malignant | Marked |
| * Pancreas | | Lymphoma Malignant | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Salivary Glands | Parotid GI | Lymphoma Malignant Atrophy | Moderate |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Lymphoma Malignant | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Lymphoma Malignant Degeneration | Minimal |
| * Spleen | | Lymphoma Malignant Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 3,4-12] | | |
| * Stomach, Forestomach | | Lymphoma Malignant | |
| * Stomach, Glandular | | Erosion Lymphoma Malignant | Minimal |
| * Thymus | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 6-6] | | |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Adenoma Lymphoma Malignant | |
| | [Adenoma TGLs = 1-16.1] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1699

TRT#: 6

SEX: Female

DAY ON TEST: 704

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1699

ORGAN AND ACCOUNTABLE SITE STATUS

[Lymphoma Malignant TGLs = 2-16.1]

PRIMARY CAUSE OF DEATH - Spleen Lymphoma Malignant

Animal Note: TGLs 9,13 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1700

TRT#: 6

SEX: Female

DAY ON TEST: 663

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1700

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Aorta | * Bone | * Bone Marrow | * Brain |
| * Clitoral Gland | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Ovary | * Pancreas | * Parathyroid Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Stomach, Glandular | * Thyroid Gland | * Trachea | Trigeminal Ganglion |
| * Urinary Bladder | * Uterus | | |

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Necrosis | Mild |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Heart | Ventricle Rgt | Cardiomyopathy | Minimal |
| | [Cardiomyopathy TGLs = 3-11,20] | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | Hepatocyte | Necrosis | Moderate |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 1-10] | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | | Fibroadenoma | Multiple |
| | [Fibroadenoma TGLs = 4,5-20,21] | Hyperplasia | Moderate |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 2-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1700

TRT#: 6

SEX: Female

DAY ON TEST: 663

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1700

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------|------------|------------------------------|---------------------|
| * Spleen | White Pulp | Atrophy | Mild |
| | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Marked |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |

PRIMARY CAUSE OF DEATH - Liver Hepatocyte Necrosis

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1701

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1701

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- Trigeminal Ganglion
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hyperplasia
 - Hypertrophy
 - Hypercellularity
 - Cystic, Minimal
 - Minimal
- * Bone Marrow
 - Hypertrophy
 - Hypercellularity
 - Moderate
- * Brain
 - [Compression TGLs = 12-2]
 - Compression
 - Minimal
- * Harderian Gland
 - Atrophy
 - Mild
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Bile Duct
 - Angiectasis TGLs = 15-21]
 - [Cyst TGLs = 9,16-20,22]
 - [Eosinophilic Focus TGLs = 14-12]
 - Angiectasis
 - Cyst
 - Eosinophilic Focus
 - Moderate
- * Lung
 - Alveolus
 - Infiltration Cellular
 - Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Hyperplasia
 - Lymphocyte, Minimal
- * Mammary Gland
 - Duct
 - Proliferation
 - Plasma Cell, Minimal
 - Dilation
 - Mild
 - Fibroadenoma
 - Multiple
 - Hyperplasia
 - Marked
 - [Fibroadenoma TGLs = 1,2,3,4,5-9,20,21,22,23,24]
- * Nerve Trigeminal
 - Degeneration
 - Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1701

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1701

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-----------------------------|---|---------------------------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy Cyst | Marked |
| | [Cyst TGLs = 7-16] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 13-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis Pigment | Mild Minimal |
| * Thymus | | Atrophy Hyperplasia | Minimal Epithelial, Minimal |
| | [Atrophy TGLs = 11-6] | | |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | Endometrium Epithelium | Hyperplasia Metaplasia | Cystic, Moderate Squamous, Minimal |
| | [Hyperplasia TGLs = 8-16] | | |

Animal Note: TGL 6 = NST (No Section Taken)

Animal Note: TGL 10 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1702

TRT#: 6

SEX: Female

DAY ON TEST: 545

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1702

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Esophagus |
| * Eye | * Harderian Gland | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Liver | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| * Bone Marrow | | Hypercellularity | Marked |
| * Brain | Meninges | Mineral | Minimal |
| * Clitoral Gland | Duct | Dilation | Marked |
| | [Dilation TGLs = 1,2-16] | | |
| * Kidney | Bilateral, Renal Tubule | Carcinoma | |
| | Pelvis | Dilation | Mild |
| | Renal Tubule | Hyperplasia | Moderate |
| | [Carcinoma TGLs = 4,5-13,20] | | |
| | [Dilation TGLs = 3-13] | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | | Inflammation | Granulomatous, Minimal |
| | [Infiltration Cellular TGLs = 6-10] | | |
| * Mammary Gland | | Galactocele | |
| | [Galactocele TGLs = 10,11-9] | | |
| Mesentery | Vein | Degeneration | Mild |
| | Vein | Inflammation | Chronic Active, Minimal |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1702

TRT#: 6

SEX: Female

DAY ON TEST: 545

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1702

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|-------|------------------------------|---------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Thymus | | Hyperplasia | Epithelial, Minimal |
| * Uterus | | Dilation | Mild |
| [Dilation TGLs = 8,9-16] | | | |

PRIMARY CAUSE OF DEATH - Kidney Bilateral Renal Tubule Carcinoma

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1703

TRT#: 6

SEX: Female

DAY ON TEST: 643

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1703

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- Trigeminal Ganglion
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skin
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Stomach, Forestomach
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Stomach, Glandular

MISSING

- * Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Extramedullary Hematopoiesis Minimal
 - Hyperplasia Mild
 - Hypertrophy Mild
- Note: One of pair available for evaluation.
- * Bone Marrow
 - Hypercellularity Marked
- * Brain
 - Meninges
 - Hyperplasia Minimal
- * Heart
 - Cardiomyopathy Minimal
- * Kidney
 - Bilateral, Renal Tubule
 - Carcinoma
- [Carcinoma TGLs = 1,2-13]
- * Liver
 - Extramedullary Hematopoiesis Minimal
 - Hepatocyte
 - Necrosis Minimal
 - Carcinoma
 - Metastatic (Thyroid Gland)
 - Alveolus
 - Infiltration Cellular
 - Histiocyte, Minimal
- [Carcinoma TGLs = 3-10]
- * Lymph Node, Mandibular
 - Proliferation Plasma Cell, Mild
- * Mammary Gland
 - Duct
 - Fibroadenoma
 - Galactocele
 - Hyperplasia Minimal
- [Galactocele TGLs = 7-20]
- * Nerve Trigeminal
 - Degeneration Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1703

TRT#: 6

SEX: Female

DAY ON TEST: 643

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1703

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|-------------------|---|----------------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy Cyst | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| Skeletal Muscle | | Degeneration | Mild |
| [Degeneration TGLs = 6-20] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis Hyperplasia | Marked Stromal, Mild |
| Note: Approximately one half of the spleen has stromal hyperplasia. | | | |
| [Extramedullary Hematopoiesis TGLs = 4-12] | | | |
| * Thymus | | Atrophy Cyst | Marked |
| | | Hyperplasia | Epithelial, Mild |
| * Thyroid Gland | Bilateral, C Cell | Carcinoma | |
| [Carcinoma TGLs = 8-8] | | | |
| * Trachea | | Carcinoma | Metastatic (Thyroid Gland) |
| * Uterus | Endometrium | Hyperplasia Leiomyosarcoma | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |

PRIMARY CAUSE OF DEATH - Kidney Bilateral Renal Tubule Carcinoma

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1704

TRT#: 6

SEX: Female

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1704

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skin
- * Trachea
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Stomach, Forestomach
- * Uterus
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- Skeletal Muscle
- * Stomach, Glandular

MISSING

- * Nerve Trigeminal
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Brain
- [Compression TGLs = 8-2]
- * Clitoral Gland
- * Harderian Gland
- * Kidney
- * Liver
- Hepatocyte
- Hepatocyte
- Note: Intestinal metaplasia of extrahepatic bile ducts in region of fibrosis adjacent to duodenum.
- [Necrosis TGLs = 3-20]
- [Vacuolation, Cytoplasmic TGLs = 4-12]
- * Lung
- Alveolus
- [Infiltration Cellular TGLs = 6-10]
- * Lymph Node, Mandibular
- * Mammary Gland
- [Fibroadenoma TGLs = 1-20]

- Hypertrophy
- Hyperplasia
- Compression
- Inflammation
- Atrophy
- Inflammation
- Nephropathy
- Extramedullary Hematopoiesis
- Mixed Cell Focus
- Necrosis
- Vacuolation, Cytoplasmic
- Mild
- Minimal
- Mild
- Chronic Active, Mild
- Minimal
- Granulomatous, Minimal
- Chronicprogr, Minimal
- Minimal
- Mild
- Mild
- Infiltration Cellular
- Histiocyte, Mild
- Hyperplasia
- Fibroadenoma
- Hyperplasia
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1704

TRT#: 6

SEX: Female

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1704

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------|-------------------------------|---------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Cyst | |
| [Cyst TGLs = 2-16] | | | |
| * Pancreas | Periductal | Cholangiofibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 7-4] | | | |
| * Salivary Glands | Submandibul GI | Atrophy | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1706

TRT#: 6

SEX: Female

DAY ON TEST: 702

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1706

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- Trigeminal Ganglion
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skin
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Stomach, Glandular
- * Uterus
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - [Hypertrophy TGLs = 3-7]
- * Brain
 - [Compression TGLs = 9-2]
- * Clitoral Gland
 - [Dilation TGLs = 6,7-16]
- * Heart
- * Kidney
- * Liver
 - [Vacuolation, Cytoplasmic TGLs = 10-12]
- * Lung
 - [Infiltration Cellular TGLs = 4-10]
- * Lymph Node, Mandibular
- * Mammary Gland
 - [Note: Additional small fibroadenoma present in routine section of mammary gland.]
 - [Fibroadenoma TGLs = 12,13-22,23.1]
- Mesentery
 - [Necrosis TGLs = 1,2-20,21]
- * Nerve Trigeminal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1706

TRT#: 6

SEX: Female

DAY ON TEST: 702

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1706

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--------------------------|-------------------------------|------------------|
| * Nose | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Moderate |
| | Rete Ovarii | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 5-4] | | |
| * Salivary Glands | Parotid GI | Atrophy | Marked |
| | Duct, Parotid GI | Dilation | Mild |
| | Parotid GI | Inflammation | Acute, Mild |
| | Skeletal Muscle | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Moderate |
| | [Atrophy TGLs = 11-12] | | |
| * Stomach, Forestomach | | Edema | Mild |
| | Epithelium | Hyperplasia | Mild |
| | | Ulcer | Mild |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGLs 8,14,15 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1707

TRT#: 6

SEX: Female

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1707

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | | |
|-------------------------|-------------------------------|-------------|------------------------------|---------------------|
| | [Hyperplasia TGLs = 3-4] | | | |
| * Spinal Cord, Lumbar | | | Degeneration | Minimal |
| | | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | | Degeneration | Mild |
| * Spleen | | | Extramedullary Hematopoiesis | Mild |
| | | | Pigment | Mild |
| * Thymus | | | Atrophy | Minimal |
| | | | Cyst | |
| | | | Ectopic Parathyroid Gland | |
| | | | Hyperplasia | Epithelial, Minimal |
| * Uterus | | | Fibrosis | Moderate |
| | | Endometrium | Hyperplasia | Cystic, Mild |
| | [Hyperplasia TGLs = 4-16.1] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1708

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1708

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Liver | * Lymph Node, Mesenteric |
| * Pancreas | * Parathyroid Gland | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

INSUFFICIENT TISSUE

- * Nerve Trigeminal

OBSERVATIONS

- | | | | |
|---------------------------------------|---------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Degeneration | Cystic, Minimal |
| | | Hypertrophy | Mild |
| * Brain | | Compression | Moderate |
| [Compression TGLs = 7-2] | | | |
| * Clitoral Gland | Duct | Dilation | Marked |
| * Islets, Pancreatic | | Hyperplasia | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Moderate |
| [Infiltration Cellular TGLs = 4-10] | | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Marked |
| | | Galactocele | |
| | | Hyperplasia | Mild |
| [Galactocele TGLs = 1,11-9,21] | | | |
| [Hyperplasia TGLs = 2-9,20] | | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Mild |
| | Rete Ovarii | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1708

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1708

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|------------------|------------------------------|---------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 8-4] | | | |
| * Salivary Glands | Duct, Parotid GI | Dilation | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Dilation | Moderate |
| | Epithelium | Metaplasia | Squamous, Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 3,5,6,9 = NCL (No Corresponding Lesion)

Animal Note: TGL 10 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1709

TRT#: 6

SEX: Female

DAY ON TEST: 741

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1709

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|---------------|------------------------------|---------------------|
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1710

TRT#: 6

SEX: Female

DAY ON TEST: 417

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1710

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Islets, Pancreatic
- * Lymph Node, Mesenteric
- * Peripheral Nerve, Sciatic
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Aorta
- * Esophagus
- * Kidney
- * Nerve Trigeminal
- * Peripheral Nerve, Tibial
- * Skin
- * Stomach, Forestomach
- * Bone
- * Harderian Gland
- * Liver
- * Pancreas
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Bone Marrow
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Salivary Glands
- * Spinal Cord, Lumbar
- Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Ileum
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Intestine Large, Colon
- * Stomach, Glandular
- * Intestine Small, Duodenum
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
- * Clitoral Gland
- * Heart
- * Lung
- [Congestion TGLs = 3-10]
- * Mammary Gland
- Mesentery
- [Hemorrhage TGLs = 5-21]
- * Nose
- * Ovary
- * Spleen
- * Thymus
- * Urinary Bladder
- Note: Hemorrhage extends from outer surface of urinary bladder into adjacent tissue
- * Uterus
- Duct
- Alveolus
- Duct
- Olfactory Epi
- White Pulp
- Red Pulp
- Necrosis
- Dilation
- Cardiomyopathy
- Congestion
- Infiltration Cellular
- Dilation
- Hemorrhage
- Accumulation, Hyaline Droplet
- Atrophy
- Atrophy
- Atrophy
- Pigment
- Atrophy
- Hemorrhage
- Hemorrhage
- Dilation
- Moderate
- Marked
- Mild
- Mild
- Histiocyte, Mild
- Minimal
- Mild
- Mild
- Moderate
- Mild
- Mild
- Mild
- Mild
- Moderate
- Mild
- Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1710

TRT#: 6

SEX: Female

DAY ON TEST: 417

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1710

ORGAN AND ACCOUNTABLE SITE STATUS

Inflammation

Chronic Active, Mild

[Dilation TGLs = 2-16]

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: TGLs 1,4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1711

TRT#: 6

SEX: Female

DAY ON TEST: 724

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1711

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Aorta | * Bone | * Bone Marrow | * Esophagus |
| * Eye | * Harderian Gland | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Kidney | * Liver |
| * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

| | | | |
|---|---------------|--|---|
| * Adrenal Cortex | | Degeneration Vacuolation, Cytoplasmic | Cystic, Minimal Minimal |
| [Vacuolation, Cytoplasmic TGLs = 4-7] | | | |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Brain | | Compression | Mild |
| [Compression TGLs = 6-2] | | | |
| * Clitoral Gland | Duct | Dilation | Mild |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| [Infiltration Cellular TGLs = 3-10] | | | |
| * Lymph Node, Mandibular | | Hyperplasia Proliferation | Lymphocyte, Marked Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation Fibroadenoma Hyperplasia | Mild Minimal |
| [Fibroadenoma TGLs = 8-20] | | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| Note: Approximately one-half of Level 3 available for evaluation. | | | |
| * Ovary | | Atrophy | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1711

TRT#: 6

SEX: Female

DAY ON TEST: 724

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1711

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLs = 5-4]

| | | | |
|-------------------------|-------------|--------------|---------------------|
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | | Dilation | Mild |
| | Endometrium | Hyperplasia | Cystic, Mild |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Animal Note: TGL 2 = NST (No Section Taken)

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1712

TRT#: 6

SEX: Female

DAY ON TEST: 652

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1712

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Eye
- * Islets, Pancreatic
- * Parathyroid Gland
- * Skin
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Harderian Gland
- * Kidney
- * Peripheral Nerve, Sciatic
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Bone
- * Heart
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Trachea
- * Esophagus
- * Intestine Large, Colon
- * Pancreas
- Skeletal Muscle
- * Stomach, Forestomach
- Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum

OBSERVATIONS

- * Adrenal Medulla
- * Bone Marrow
- * Brain
- * Clitoral Gland
- * Liver
- * Lung
 - [Infiltration Cellular TGLs = 4-10]
- * Lymph Node, Mandibular
- * Mammary Gland
 - [Galactocele TGLs = 5-9,20]
- * Nerve Trigeminal
- * Nose
- * Ovary
- * Peripheral Nerve, Tibial
- * Pituitary Gland
 - [Adenoma TGLs = 1-4]
- * Spinal Cord, Lumbar
- Pheochromocytoma Complex
- Hypercellularity
- Mineral
- Dilation
- Infiltration Cellular
- Necrosis
- Infiltration Cellular
- Proliferation
- Dilation
- Galactocele
- Degeneration
- Accumulation, Hyaline Droplet
- Atrophy
- Degeneration
- Adenoma
- Degeneration
- Marked
- Minimal
- Moderate
- Mixed Cell, Minimal
- Minimal
- Histiocyte, Mild
- Plasma Cell, Minimal
- Moderate
- Mild
- Moderate
- Mild
- Minimal
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1712

TRT#: 6

SEX: Female

DAY ON TEST: 652

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1712

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------|----------------------------|------------------------------|---------|
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Hemorrhage | Mild |
| | [Hemorrhage TGLs = 2-6] | | |
| * Uterus | | Dilation | Marked |
| | | Hemorrhage | Marked |
| | [Dilation TGLs = 6-16] | | |
| | [Hemorrhage TGLs = 7-16] | | |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1714

TRT#: 6

SEX: Female

DAY ON TEST: 545

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1714

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Liver | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Lumbar | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | * Uterus |

OBSERVATIONS

| | | | |
|-----------------------------------|---------------------------------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| * Clitoral Gland | Duct | Dilation | Marked |
| | Duct | Hyperplasia | Mild |
| | | Inflammation | Chronic Active, Mild |
| Note: Abundant keratin formation. | | | |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 2-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Marked |
| | | Proliferation | Plasma Cell, Moderate |
| * Mammary Gland | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 1-20] | Hyperplasia | Moderate |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Cyst | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Cyst | |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1714

TRT#: 6

SEX: Female

DAY ON TEST: 545

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1714

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Moderate

* Thyroid Gland

C Cell

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1715

TRT#: 6

SEX: Female

DAY ON TEST: 516

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1715

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Esophagus
- * Eye
- * Harderian Gland
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Liver
- * Lymph Node, Mesenteric
- * Pancreas
- * Parathyroid Gland
- * Salivary Glands
- Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Spinal Cord, Thoracic
- * Stomach, Glandular
- * Trachea
- Trigeminal Ganglion
- * Urinary Bladder

OBSERVATIONS

- * Bone Marrow Hypercellularity Minimal
- * Brain Compression Moderate
- * Clitoral Gland Duct Dilation Marked
- * Kidney Nephropathy Chronicprogr, Mild
- * Lung Alveolus Infiltration Cellular Histiocyte, Minimal
[Infiltration Cellular TGLs = 2,3 - 20,21]
- * Lymph Node, Mandibular Proliferation Plasma Cell, Mild
- * Mammary Gland Galactocele Moderate
Hyperplasia
- [Galactocele TGLs = 1-21]
- * Nerve Trigeminal Degeneration Minimal
- * Nose Olfactory Epi Accumulation, Hyaline Droplet Mild
Note: Approximately one-half of Level 3 absent.
- * Ovary Atrophy Moderate
- * Peripheral Nerve, Sciatic Degeneration Minimal
- * Peripheral Nerve, Tibial Degeneration Minimal
- * Pituitary Gland Pars Distalis Adenoma
[Adenoma TGLs = 4-4]
- * Spinal Cord, Lumbar Nerve Degeneration Minimal
- * Spleen Extramedullary Hematopoiesis Mild
Pigment Moderate
- * Stomach, Forestomach Epithelium Hyperplasia Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1715

TRT#: 6

SEX: Female

DAY ON TEST: 516

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1715

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------|----------------|-------------|---------------------|
| * Thymus | | Atrophy | Moderate |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Tissue NOS | Abdominal, Fat | Necrosis | Moderate |
| [Necrosis TGLs = 5-20] | | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1716

TRT#: 6

SEX: Female

DAY ON TEST: 16

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1716

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|-----------------------------|----------------------------|-----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Brain | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Kidney | * Liver | * Lung | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Mammary Gland | * Nerve Trigeminal | * Nose |
| * Ovary | * Pancreas | * Parathyroid Gland | * Peripheral Nerve, Sciatic |
| * Peripheral Nerve, Tibial | * Salivary Glands | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |
| * Uterus | | | |

MISSING

- | | |
|------------------|-------------------|
| * Clitoral Gland | * Pituitary Gland |
|------------------|-------------------|

AUTO PRECLUDES DIAG.

- * Intestine Small, Ileum

INSUFFICIENT TISSUE

- * Spinal Cord, Lumbar

OBSERVATIONS

- * Brain

Note: One olfactory bulb available

- * Spleen
- * Thymus

Extramedullary Hematopoiesis
Hemorrhage

Minimal
Minimal

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1717

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1717

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Stomach, Glandular
- * Aorta
- * Harderian Gland
- * Intestine Small, Duodenum
- * Liver
- * Salivary Glands
- * Thyroid Gland
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Skin
- * Trachea
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Spinal Cord, Cervical
- * Urinary Bladder

MISSING

- * Ovary
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - [Hypertrophy TGLs = 9-7]
- * Bone Marrow
- * Clitoral Gland
- * Eye
- * Heart
- * Kidney
 - [Nephropathy TGLs = 10,11-13]
- * Lung
 - [Infiltration Cellular TGLs = 14-10]
- Lymph Node
- * Lymph Node, Mandibular
 - [Proliferation TGLs = 3-20]
- * Mammary Gland
 - [Galactocele TGLs = 3-9,20]
 - [Hyperplasia TGLs = 2-9,20]

- Degeneration
- Hypertrophy
- Hypercellularity
- Dilation
- Inflammation
- Cardiomyopathy
- Nephropathy
- Infiltration Cellular
- Erythrophagocytosis
- Proliferation
- Hyperplasia
- Proliferation
- Dilation
- Galactocele
- Hyperplasia
- Cystic, Moderate
- Mild
- Marked
- Moderate
- Chronic Active, Minimal
- Minimal
- Chronicprogr, Marked
- Histiocyte, Mild
- Mild
- Plasma Cell, Minimal
- Lymphocyte, Minimal
- Plasma Cell, Minimal
- Moderate
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1717

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1717

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|-------------------------------|-------------------------|
| Mesentery | Artery | Inflammation | Chronic Active, Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | | Foreign Body | |
| | | Inflammation | Suppurative, Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Intermed | Cyst | |
| | [Adenoma TGLs = 15-4] | | |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | | Pigment | Minimal |
| | [Extramedullary Hematopoiesis TGLs = 8-12] | | |
| * Stomach, Forestomach | | Fibrosis | Minimal |
| | Epithelium | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| * Thymus | | Atrophy | Moderate |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | | Inflammation | Chronic Active, Marked |
| | | Leiomyosarcoma | |
| | Epithelium | Metaplasia | Squamous, Marked |
| | | Polyp Stromal | |
| | Cervix | Schwannoma Malignant | |
| | [Inflammation TGLs = 4,5-16,21] | | |
| | [Leiomyosarcoma TGLs = 3,5-16,21] | | |
| | [Metaplasia TGLs = 4,5-16,21] | | |
| | [Schwannoma Malignant TGLs = 6-22] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1717

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1717

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGLs 7,12 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1718

TRT#: 6

SEX: Female

DAY ON TEST: 656

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1718

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| Skeletal Muscle | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

MISSING

- * Thymus

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|--|----------------------------------|
| * Adrenal Cortex | | Adenoma Degeneration | Cystic, Marked |
| | [Adenoma TGLs = 3-7] | | |
| | [Degeneration TGLs = 3-7] | | |
| * Bone Marrow | | Hypercellularity | Marked |
| * Clitoral Gland | Duct | Dilation Inflammation | Moderate Chronic Active, Mild |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Eosinophilic Focus Extramedullary Hematopoiesis | Minimal Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 5-10] | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Moderate |
| * Mammary Gland | Duct | Dilation Fibroadenoma Galactocele | Minimal |
| | [Fibroadenoma TGLs = 7-21] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1718

TRT#: 6

SEX: Female

DAY ON TEST: 656

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1718

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|------------------------------|------------------|
| * Peripheral Nerve, Sciatic | | Cyst | |
| | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Skin | | Cyst Epithelial Inclusion | |
| | [Cyst Epithelial Inclusion TGLs = 2-20] | | |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Dilation | Marked |
| | Epithelium | Metaplasia | Squamous, Marked |

Note: Uterine horn lumens filled with abundant keratin material, bilaterally.

[Dilation TGLs = 1-16]

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Animal Note: TGL 6 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1719

TRT#: 6

SEX: Female

DAY ON TEST: 744

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1719

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-----------------------------------|-------------------------------|----------|
| * Lymph Node, Mesenteric | | Erythrophagocytosis | Mild |
| * Mammary Gland | | Fibroadenoma | Multiple |
| | | Hyperplasia | Minimal |
| | [Fibroadenoma TGLs = 3,4-20,21] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Cyst | |
| | [Cyst TGLs = 6-16] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |
| Tissue NOS | Abdominal, Fat | Necrosis | Minimal |
| | [Necrosis TGLs = 5-22] | | |

Animal Note: TGLs 9,11 = NCL (No Corresponding Lesion)

Animal Note: TGL 8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1720

TRT#: 6

SEX: Female

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1720

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|--------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric | * Nerve Trigeminal |
| * Pancreas | * Parathyroid Gland | * Salivary Glands | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|---------------------------|---------------------------------------|-----------------------------------|-------------------------|
| * Adrenal Cortex | | Accessory Adrenal Cortical Nodule | |
| | | Hypertrophy | Mild |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Clitoral Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Minimal |
| * Eye | Retina | Atrophy | Mild |
| * Intestine Large, Rectum | | Hyperplasia | Lymphocyte, Mild |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Basophilic Focus | |
| | Bile Duct | Fibrosis | Minimal |
| | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 6-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| * Mammary Gland | | Adenocarcinoma | |
| | Duct | Dilation | Moderate |
| | | Fibroadenoma | |
| | | Hyperplasia | Mild |
| | [Adenocarcinoma TGLs = 2,3-20] | | |
| | [Dilation TGLs = 1,4,5-9,20,21] | | |
| | [Fibroadenoma TGLs = 1-20] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1720

TRT#: 6

SEX: Female

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1720

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|------------------------------|-------------------|
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| Note: Pars distalis available for evaluation. | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| * Uterus | | Cyst | |
| | Epithelium | Metaplasia | Squamous, Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1721

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1721

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Stomach, Glandular
- * Bone
- * Harderian Gland
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Trachea
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Pancreas
- * Spinal Cord, Cervical
- * Trigeminal Ganglion
- * Brain
- * Intestine Large, Colon
- * Kidney
- * Parathyroid Gland
- * Stomach, Forestomach
- * Urinary Bladder

INSUFFICIENT TISSUE

- * Adrenal Medulla

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hyperplasia
 - Hypertrophy
- * Clitoral Gland
 - [Degeneration TGLs = 8-7]
 - Duct
 - Dilation
 - Inflammation
- * Eye
 - Retina
 - Atrophy
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
- * Intestine Large, Rectum
 - Hyperplasia
- * Islets, Pancreatic
 - Adenoma
- * Liver
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 10-10]
 - Infiltration Cellular
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - [Fibroadenoma TGLs = 1,2,3,5,6-20,22,23,25,26]
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Olfactory Epi
 - Hyperplasia
- * Ovary
 - Atrophy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1721

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1721

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--------------------------|------------------------------|----------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Skin | Subcut Tiss | Lipoma | |
| | [Lipoma TGLs = 4-24.1] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Tissue NOS | Fat | Necrosis | Moderate |
| | [Necrosis TGLs = 7-21] | | |
| * Uterus | | Cyst | |
| | Epithelium | Metaplasia | Squamous, Mild |

Animal Note: TGL 9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1722

TRT#: 6

SEX: Female

DAY ON TEST: 711

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1722

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skin
- * Thyroid Gland
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Spinal Cord, Cervical
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Cystic, Mild
- * Bone
 - Vertebra
 - Hypertrophy
 - Mild
- * Bone Marrow
 - Chondroma
 - Hypercellularity
 - Marked
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Carcinoma
 - Note: One of pair available for evaluation.
 - Note: Difficult to ascertain if carcinoma is arising from clitoral gland or adjacent mammary tissue.
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Extramedullary Hematopoiesis
 - Minimal
- * Lung
 - Alveolus
 - Infiltration Cellular TGLs = 4-10]
 - Infiltration Cellular
 - Infiltration Cellular
 - Histiocyte, Mild
- * Lymph Node, Mandibular
 - Hyperplasia
 - Lymphocyte, Mild
 - Proliferation
 - Plasma Cell, Mild
- * Mammary Gland
 - Duct
 - Dilation
 - Mild
 - Fibroadenoma
 - Multiple
 - [Fibroadenoma TGLs = 1,2-20,21]
- * Nerve Trigeminal
 - Degeneration
 - Mild
- * Nose
 - Respirat Epith
 - Accumulation, Hyaline Droplet
 - Minimal
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Minimal
- * Ovary
 - Atrophy
 - Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1722

TRT#: 6

SEX: Female

DAY ON TEST: 711

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1722

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|------------------------------|---------------------|
| | | Cyst | |
| | Rete Ovarii | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Hyperplasia | Minimal |
| * Salivary Glands | Parotid GI | Atrophy | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | Note: Chondroma extending into vertebral canal resulting in compression of spinal cord. | | |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| | [Extramedullary Hematopoiesis TGLs = 3-12] | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Basal Cell, Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | | Polyp Stromal | Multiple |
| | [Polyp Stromal TGLs = 6-16] | | |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGLs 5,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1723

TRT#: 6

SEX: Female

DAY ON TEST: 483

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1723

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|---------------------|-------------|----------------------|--------------------|
| * Bone | * Esophagus | * Islets, Pancreatic | * Nerve Trigeminal |
| Trigeminal Ganglion | | | |

MISSING

* Thymus

AUTO PRECLUDES DIAG.

| | |
|-----------------------------|----------------------------|
| * Intestine Small, Duodenum | * Intestine Small, Jejunum |
|-----------------------------|----------------------------|

OBSERVATIONS

| | | | |
|---|----------|-----------------------|---------------------|
| * Adrenal Cortex | | Lymphoma Malignant | |
| * Adrenal Medulla | | Lymphoma Malignant | |
| * Aorta | | Lymphoma Malignant | |
| * Bone Marrow | | Hypercellularity | Marked |
| * Brain | | Lymphoma Malignant | |
| Note: Olfactory bulbs not available for evaluation. | | | |
| * Clitoral Gland | Duct | Dilation | Mild |
| | | Lymphoma Malignant | |
| Note: One of pair available for evaluation. | | | |
| * Eye | | Lymphoma Malignant | |
| * Harderian Gland | | Lymphoma Malignant | |
| * Heart | | Lymphoma Malignant | |
| * Intestine Large, Cecum | | Lymphoma Malignant | |
| * Intestine Large, Colon | | Lymphoma Malignant | |
| * Intestine Large, Rectum | | Lymphoma Malignant | |
| * Intestine Small, Ileum | | Lymphoma Malignant | |
| * Kidney | | Lymphoma Malignant | |
| * Liver | | Lymphoma Malignant | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | | Lymphoma Malignant | |
| [Lymphoma Malignant TGLs = 3-10] | | | |
| * Lymph Node, Mandibular | | Lymphoma Malignant | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1723

TRT#: 6

SEX: Female

DAY ON TEST: 483

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1723

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|--------------------|------|
| * Lymph Node, Mesenteric | | Lymphoma Malignant | |
| * Mammary Gland | Duct | Dilation | Mild |
| | | Galactocele | |
| | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 1-20] | | |
| * Nose | | Lymphoma Malignant | |
| * Ovary | | Lymphoma Malignant | |
| * Pancreas | | Lymphoma Malignant | |
| * Parathyroid Gland | | Lymphoma Malignant | |
| * Peripheral Nerve, Sciatic | | Lymphoma Malignant | |
| * Peripheral Nerve, Tibial | | Lymphoma Malignant | |
| * Pituitary Gland | | Lymphoma Malignant | |
| * Salivary Glands | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 4,5-9,21] | | |
| Skeletal Muscle | | Lymphoma Malignant | |
| * Skin | | Lymphoma Malignant | |
| * Spinal Cord, Cervical | | Lymphoma Malignant | |
| * Spinal Cord, Lumbar | | Lymphoma Malignant | |
| * Spinal Cord, Thoracic | | Lymphoma Malignant | |
| * Spleen | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 2-12] | | |
| * Stomach, Forestomach | | Lymphoma Malignant | |
| * Stomach, Glandular | | Lymphoma Malignant | |
| * Thyroid Gland | | Lymphoma Malignant | |
| * Trachea | | Lymphoma Malignant | |
| * Urinary Bladder | | Lymphoma Malignant | |
| * Uterus | | Lymphoma Malignant | |

PRIMARY CAUSE OF DEATH - Spleen Lymphoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1724

TRT#: 6

SEX: Female

DAY ON TEST: 550

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1724

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Skin
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Spinal Cord, Thoracic
- * Trachea
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Stomach, Forestomach
- * Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - [Hypertrophy TGLs = 1-7]
- * Brain
- * Heart
- * Islets, Pancreatic
- * Kidney
- * Liver
 - Bile Duct
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 4-10,20]
- * Mammary Gland
 - Duct
- * Nose
 - Olfactory Epi
 - Respirat Epith
- * Ovary
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
 - Pars Distalis
 - [Adenoma TGLs = 3-4]
- * Salivary Glands
 - Parotid GI
- * Spinal Cord, Lumbar
 - Nerve
- * Spleen

- Degeneration
- Hypertrophy
- Compression
- Cardiomyopathy
- Hyperplasia
- Nephropathy
- Hyperplasia
- Infiltration Cellular
- Dilation
- Accumulation, Hyaline Droplet
- Accumulation, Hyaline Droplet
- Atrophy
- Degeneration
- Degeneration
- Adenoma
- Atrophy
- Degeneration
- Pigment
- Cystic, Mild
- Mild
- Mild
- Minimal
- Minimal
- Chronicprogr, Minimal
- Minimal
- Histiocyte, Minimal
- Mild
- Moderate
- Minimal
- Mild
- Minimal
- Minimal
- Mild
- Minimal
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1724

TRT#: 6

SEX: Female

DAY ON TEST: 550

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1724

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Atrophy

Minimal

Hyperplasia

Epithelial, Mild

* Uterus

Endometrium

Hyperplasia

Cystic, Moderate

[Hyperplasia TGLs = 2-20]

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1725

TRT#: 6

SEX: Female

DAY ON TEST: 744

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1725

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Pancreas | * Parathyroid Gland | * Salivary Glands | Skeletal Muscle |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | * Uterus | |

OBSERVATIONS

- | | | | |
|---------------------------------------|----------------------------|--|---|
| * Adrenal Cortex | | Degeneration Hyperplasia Hypertrophy | Cystic, Minimal Minimal Mild |
| [Degeneration TGLs = 4-7] | | | |
| * Clitoral Gland | Duct | Dilation Inflammation | Mild Chronic Active, Mild |
| [Dilation TGLs = 1-16] | | | |
| * Eye | Retina | Atrophy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Basophilic Focus Mixed Cell Focus | |
| * Lung | Epithlm Alvlus Alveolus | Hyperplasia Infiltration Cellular | Moderate Histiocyte, Minimal |
| [Infiltration Cellular TGLs = 7-10] | | | |
| * Lymph Node, Mandibular | | Hyperplasia Proliferation | Lymphocyte, Minimal Plasma Cell, Minimal |
| * Mammary Gland | | Hyperplasia | Mild |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy Cyst | Marked |
| [Cyst TGLs = 2-16] | | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1725

TRT#: 6

SEX: Female

DAY ON TEST: 744

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1725

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Adenoma | |

Animal Note: TGLs 3,5,6 = NCL (No Corresponding Lesion)

Animal Note: TGL 8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1727

TRT#: 6

SEX: Female

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1727

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Stomach, Glandular
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Trachea

MISSING

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Bone Marrow
 - Hypercellularity
- * Clitoral Gland
 - Duct
 - Dilation
- * Eye
 - Retina
 - Atrophy
- * Kidney
 - Nephropathy
- * Liver
 - Periductal
 - Cholangiofibrosis
- Note: Intestinal metaplasia of bile ducts within region of fibrosis.
- * Lung
 - Alveolus
 - Infiltration Cellular TGLs = 6-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Fibroadenoma
- * Mammary Gland
 - Fibroadenoma TGLs = 1,2-9,20]
- * Nerve Trigeminal
 - Degeneration
 - Gliosis
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Ovary
 - Atrophy
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1727

TRT#: 6

SEX: Female

DAY ON TEST: 737

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1727

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------|---------------|------------------------------|-------------------|
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Tissue NOS | Fat | Necrosis | Moderate |
| [Necrosis TGLs = 5-21] | | | |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |
| [Cyst TGLs = 3-16] | | | |

Animal Note: TGLs 4,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1729

TRT#: 6

SEX: Female

DAY ON TEST: 648

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1729

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------------|---------------|------------------------------|----------------------|
| * Ovary | | Atrophy | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 6-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Hemorrhage | Moderate |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |
| * Urinary Bladder | | Infiltration Cellular | Histiocyte, Moderate |
| * Uterus | | Dilation | Marked |
| | | Inflammation | Suppurative, Marked |
| | Epithelium | Metaplasia | Squamous, Marked |
| [Dilation TGLs = 1-16] | | | |
| [Inflammation TGLs = 7-16] | | | |

PRIMARY CAUSE OF DEATH - Uterus Inflammation

Animal Note: TGL 2 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1730

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1730

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Small, Duodenum
- * Nose
- Skeletal Muscle
- * Thyroid Gland
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Trachea
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Pheochromocytoma Benign
- * Bone Marrow
 - Hypercellularity
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
- [Dilation TGLs = 2-16]
- * Eye
 - Retina
 - Atrophy
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
 - Hyperplasia
 - Nephropathy
 - Angiectasis
 - Hepatocellular Adenoma
- * Islets, Pancreatic
 - Hyperplasia
- * Kidney
 - Nephropathy
- * Liver
 - Angiectasis
 - Hepatocellular Adenoma
- [Angiectasis TGLs = 7-12]
 - [Hepatocellular Adenoma TGLs = 8-21]
- * Lung
 - Alveolus
 - Infiltration Cellular
- [Infiltration Cellular TGLs = 5-10]
- * Lymph Node, Mandibular
 - Proliferation
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
- [Fibroadenoma TGLs = 1-20]
- * Nerve Trigeminal
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1730

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1730

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|------------------------------|--------------------------|
| * Ovary | | Atrophy | Marked |
| | | Cyst | |
| | | Fibrosis | Marked |
| | | Inflammation | Chronic, Moderate |
| | [Cyst TGLs = 3-16] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 6-4] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Inflammation | Chronic Active, Moderate |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | | Squamous Cell Carcinoma | |
| | [Squamous Cell Carcinoma TGLs = 4-21] | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1732

TRT#: 6

SEX: Female

DAY ON TEST: 627

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1732

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Rectum
- * Nerve Trigeminal
- Skeletal Muscle
- * Trachea
- * Aorta
- * Eye
- * Intestine Small, Duodenum
- * Pancreas
- * Skin
- Trigeminal Ganglion
- * Bone
- * Harderian Gland
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Stomach, Glandular
- * Urinary Bladder
- * Brain
- * Intestine Large, Colon
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Thyroid Gland

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

INSUFFICIENT TISSUE

- * Thymus

OBSERVATIONS

- * Adrenal Cortex
 - Atrophy
 - Carcinoma
 - Moderate
- Note: One of pair available for evaluation. Second adrenal not identified at necropsy.
- Note: Mass on Slide 20 represents primary adrenal mass. Abundant hematopoietic cell proliferation associated with neoplastic cell population
 - [Carcinoma TGLs = 3-20]
- * Bone Marrow
 - Hypercellularity
 - Marked
- * Clitoral Gland
 - Duct
 - Dilation
 - Marked
- [Dilation TGLs = 1-16]
- * Heart
 - Cardiomyopathy
 - Minimal
- * Islets, Pancreatic
 - Adenoma
- * Kidney
 - Nephropathy
 - Chronicprogr, Mild
- * Liver
 - Carcinoma
 - Metastatic (Adrenal Cortex)
 - Extramedullary Hematopoiesis
 - Minimal
 - Hepatocyte
 - Hypertrophy
 - Mild
- [Carcinoma TGLs = 3-12,20]
- [Hypertrophy TGLs = 2-12]
- * Lung
 - Alveolus
 - Carcinoma
 - Metastatic (Adrenal Cortex)
 - Infiltration Cellular
 - Histiocyte, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1732

TRT#: 6

SEX: Female

DAY ON TEST: 627

DOSE: 3.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1732

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|--|---|----------------------|
| | [Infiltration Cellular TGLs = 4-10] | | |
| * Mammary Gland | Duct | Dilation Fibroadenoma Hyperplasia | Moderate Mild |
| | [Fibroadenoma TGLs = 5-20] | | |
| | [Hyperplasia TGLs = 8-9] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| Note: Longitudinal section available for evaluation. | | | |
| * Salivary Glands | Parotid GI | Atrophy | Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | [Extramedullary Hematopoiesis TGLs = 6-12] | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 9-14,22RT] | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |

PRIMARY CAUSE OF DEATH - Adrenal Cortex Carcinoma

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1734

TRT#: 6

SEX: Female

DAY ON TEST: 745

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1734

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Liver |
| * Lung | * Lymph Node, Mesenteric | * Ovary | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Salivary Glands | * Skin |
| * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular | * Trachea |
| Trigeminal Ganglion | * Urinary Bladder | | |

OBSERVATIONS

| | | | |
|-----------------------------|--------------------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Moderate |
| * Clitoral Gland | Duct | Dilation | Mild |
| | | Inflammation | Chronic Active, Mild |
| | [Dilation TGLs = 1-16] | | |
| * Harderian Gland | | Atrophy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | | Hyperplasia | Moderate |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1734

TRT#: 6

SEX: Female

DAY ON TEST: 745

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1734

ORGAN AND ACCOUNTABLE SITE STATUS

* Uterus

Endometrium

Hyperplasia

Cystic, Minimal

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1735

TRT#: 6

SEX: Female

DAY ON TEST: 598

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1735

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Aorta | * Bone | * Bone Marrow | * Clitoral Gland |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Liver | * Lymph Node, Mesenteric |
| * Pancreas | * Parathyroid Gland | * Salivary Glands | Skeletal Muscle |
| * Skin | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|--|---------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| * Adrenal Medulla | | Hyperplasia | Mild |
| * Brain | | Compression | Moderate |
| Note: Insufficient olfactory bulbs available for evaluation. | | | |
| * Clitoral Gland | | | |
| Note: One of pair available for evaluation. | | | |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| [Infiltration Cellular TGLs = 3-10] | | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Minimal |
| | | Fibroadenoma | |
| Mesentery | | Necrosis | Mild |
| [Necrosis TGLs = 2-20] | | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1735

TRT#: 6

SEX: Female

DAY ON TEST: 598

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1735

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|----------------------------|-------------------------------------|
| * Pituitary Gland [Adenoma TGLs = 5-4] | Pars Distalis | Adenoma | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar Note: Affecting adjacent spinal nerves. | | Degeneration | Minimal |
| * Spleen [Atrophy TGLs = 1-12] | Red Pulp | Atrophy Pigment | Mild Moderate |
| * Thymus | | Atrophy Cyst | Mild |
| * Uterus | Endometrium | Hyperplasia Hyperplasia | Epithelial, Minimal Cystic, Mild |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1736

TRT#: 6

SEX: Female

DAY ON TEST: 493

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1736

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Liver | * Lymph Node, Mesenteric | * Nerve Trigeminal | * Pancreas |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular | * Trachea |
| * Urinary Bladder | * Uterus | | |

OBSERVATIONS

- | | | | |
|-----------------------------|--------------------------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| * Clitoral Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| | [Nephropathy TGLs = 3-13] | | |
| * Lung | | Congestion | Minimal |
| | [Congestion TGLs = 5-10] | Inflammation | Chronic Active, Minimal |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | | Adenocarcinoma | |
| | [Adenocarcinoma TGLs = 1-20] | Fibroadenoma | |
| | [Fibroadenoma TGLs = 2-21] | Hyperplasia | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Cyst | |
| | [Cyst TGLs = 4-16] | | |
| * Parathyroid Gland | | Cyst | |
| | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1736

TRT#: 6

SEX: Female

DAY ON TEST: 493

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1736

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Longitudinal section available for evaluation.

| | | | |
|-----------------------|----------------|------------------------------|---------|
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | Follicular Cel | Adenoma | |
| | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Mammary Gland Adenocarcinoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1737

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1737

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Peripheral Nerve, Sciatic
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Trachea
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skeletal Muscle
- * Stomach, Forestomach
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Skin
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 - Cystic, Minimal
 - Mild
 - Moderate
 - Minimal
- * Adrenal Medulla
 - Hyperplasia
 - Minimal
- * Brain
 - [Compression TGLs = 5-2]
 - Compression
 - Mild
- * Clitoral Gland
 - [Dilation TGLs = 1,2-16]
 - Duct
 - Dilation
 - Moderate
- * Heart
 - Cardiomyopathy
 - Minimal
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Mixed Cell Focus
- * Lung
 - [Infiltration Cellular TGLs = 4-10]
 - Alveolus
 - Infiltration Cellular
 - Histiocyte, Moderate
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Lymphocyte, Minimal
- * Mammary Gland
 - Duct
 - Dilation
 - Plasma Cell, Minimal
 - Mild
- * Nerve Sciatic
 - Note: Longitudinal section available for evaluation.
- * Nerve Trigeminal
 - Degeneration
 - Mild
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Mild
- * Ovary
 - Atrophy
 - Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1737

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1737

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 6-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | Cervix | Polyp Stromal | |
| [Schwannoma Malignant TGLs = 3-20] | | Schwannoma Malignant | |

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1738

TRT#: 6

SEX: Female

DAY ON TEST: 744

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1738

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Ovary
- Skeletal Muscle
- * Stomach, Glandular
- * Uterus
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Skin
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hypertrophy
 - [Hypertrophy TGLs = 6-7]
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Duct
 - Dilation
 - [Dilation TGLs = 2,3-16]
- * Eye
 - Retina
 - Atrophy
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - [Cardiomyopathy TGLs = 9-11,21]
- * Islets, Pancreatic
 - Hyperplasia
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Clear Cell Focus
 - Mixed Cell Focus
 - [Clear Cell Focus TGLs = 4-12]
 - [Mixed Cell Focus TGLs = 4-12]
- * Lung
 - Alveolus
 - Infiltration Cellular
 - [Infiltration Cellular TGLs = 10-10]
 - Lymph Node
 - Mediastinal
 - Erythrophagocytosis
 - [Erythrophagocytosis TGLs = 8-21]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Lymphocyte, Minimal
 - Plasma Cell, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1738

TRT#: 6

SEX: Female

DAY ON TEST: 744

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1738

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|----------|
| * Mammary Gland | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 1-20] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Pancreas | Acinus | Hyperplasia | Mild |
| | [Hyperplasia TGLs = 7-14] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary G1 | | | |
| | Note: Pars distalis available for evaluation. | | |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1739

TRT#: 6

SEX: Female

DAY ON TEST: 711

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1739

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Skin
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Kidney
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Trachea
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- Skeletal Muscle
- * Stomach, Forestomach
- Trigeminal Ganglion

MISSING

- * Adrenal Medulla

OBSERVATIONS

- * Adrenal Cortex
 - Adenoma
 - Hyperplasia
 - Hypercellularity
 - Dilation
 - Hyperplasia
 - Extramedullary Hematopoiesis
 - Mixed Cell Focus
 - Infiltration Cellular
- * Bone Marrow
 - Minimal
 - Marked
- * Clitoral Gland
 - Duct
 - Minimal
- * Islets, Pancreatic
 - Hyperplasia
 - Minimal
- * Liver
 - Extramedullary Hematopoiesis
 - Minimal
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 3-10]
 - Infiltration Cellular
 - Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Proliferation
 - Plasma Cell, Mild
- * Mammary Gland
 - Fibroadenoma
 - Hyperplasia
 - Mild
 - [Fibroadenoma TGLs = 2-20]
- * Nerve Trigeminal
 - Degeneration
 - Moderate
- * Nose
 - Respirat Epith
 - Accumulation, Hyaline Droplet
 - Minimal
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Mild
- * Ovary
 - Bursa
 - Cyst
 - Dilation
 - Marked
 - [Dilation TGLs = 1-16]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1739

TRT#: 6

SEX: Female

DAY ON TEST: 711

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1739

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|-------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | | | |
| Note: Pars distalis available for evaluation. | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | | Dilation | Minimal |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Animal Note: TGLs 4,5 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1740

TRT#: 6

SEX: Female

DAY ON TEST: 744

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1740

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Bone
- * Esophagus
- * Harderian Gland
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Pancreas
- * Salivary Glands
- * Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Spinal Cord, Thoracic
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Hypertrophy Mild
 - Vacuolation, Cytoplasmic Minimal
 - [Hypertrophy TGLs = 7-7]
 - [Vacuolation, Cytoplasmic TGLs = 7-7]
- * Adrenal Medulla
 - Hyperplasia Minimal
- * Bone Marrow
 - Hypercellularity Mild
- * Brain
 - Compression Minimal
- * Clitoral Gland
 - Duct Dilation Mild
- * Eye
 - Retina Atrophy Minimal
- * Islets, Pancreatic
 - Hyperplasia Minimal
- * Kidney
 - Nephropathy Chronicprogr, Minimal
- * Liver
 - Lymphoma Malignant
- * Lung
 - Alveolus Infiltration Cellular Histiocyte, Mild
 - [Infiltration Cellular TGLs = 8-10]
- * Lymph Node, Mandibular
 - Hyperplasia Lymphocyte, Minimal
 - Proliferation Plasma Cell, Minimal
- * Mammary Gland
 - Duct Dilation Moderate
 - Fibroadenoma Multiple
 - Hyperplasia Mild
 - [Dilation TGLs = 4-9,21]
 - [Fibroadenoma TGLs = 1,2,3-20,21,22]
- * Nerve Trigeminal
 - Degeneration Minimal
- * Nose
 - Olfactory Epi Accumulation, Hyaline Droplet Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1740

TRT#: 6

SEX: Female

DAY ON TEST: 744

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1740

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|------------------------------------|------------------------------|---------------------|
| * Ovary | | Atrophy | Marked |
| | Rete Ovarii | Hyperplasia | Minimal |
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 10-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 6-12] | | |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | [Hyperplasia TGLs = 5-16] | | |

Animal Note: TGL 9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1741

TRT#: 6

SEX: Female

DAY ON TEST: 739

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1741

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Trachea
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Pancreas
- Skeletal Muscle
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Skin
- * Stomach, Glandular
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Adrenal Medulla
 - Hyperplasia
- * Bone Marrow
 - Hypercellularity
- * Clitoral Gland
 - Inflammation
- * Eye
 - Retina
 - Atrophy
 - Retina
 - Dysplasia
- * Islets, Pancreatic
 - Hyperplasia
- * Kidney
 - Nephropathy
- * Liver
 - Bile Duct
 - Cyst
- * Lung
 - [Cyst TGLs = 6-20]
 - Alveolus
 - Infiltration Cellular TGLs = 9-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - [Fibroadenoma TGLs = 1-20]
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Ovary
 - Atrophy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1741

TRT#: 6

SEX: Female

DAY ON TEST: 739

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1741

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Mild |
| | | Polyp Stromal | Multiple |

[Cyst TGLs = 4-16]

[Polyp Stromal TGLs = 5-20]

Animal Note: TGLs 2,3,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1742

TRT#: 6

SEX: Female

DAY ON TEST: 662

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1742

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Brain |
| * Clitoral Gland | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland | * Salivary Glands |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|-----------------------------|---|-------------------------------|-----------------------|
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Bone Marrow | | Hypercellularity | Marked |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Extramedullary Hematopoiesis | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 5-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Moderate |
| * Mammary Gland | Duct | Dilation | Minimal |
| | [Fibroadenoma TGLs = 1,2,3,4-20,21,22,23] | Fibroadenoma | Multiple |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| | Note: Approximately two-thirds of Level 3 available for evaluation. | | |
| * Ovary | | Atrophy | Mild |
| | | Cyst | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 6-4] | | |
| Skeletal Muscle | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1742

TRT#: 6

SEX: Female

DAY ON TEST: 662

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1742

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------------|------------------------------|----------------------|
| * Spinal Cord, Lumbar | | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Moderate |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | | Polyp Stromal | |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1743

TRT#: 6

SEX: Female

DAY ON TEST: 745

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1743

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Cervical
- Trigeminal Ganglion
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Ovary
- Skeletal Muscle
- * Stomach, Glandular
- * Uterus
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 - Pheochromocytoma Benign
 Minimal
Mild
Mild
- * Adrenal Medulla
 - [Pheochromocytoma Benign TGLs = 5-7]
- * Brain
 - [Compression TGLs = 10-2]
 Compression
Minimal
- * Clitoral Gland
 - Duct
 - Duct
 - [Dilation TGLs = 2,3-16]
 Dilation
Hyperplasia
Inflammation
Marked
Moderate
Chronic Active, Minimal
- * Heart
- * Kidney
- * Liver
 - [Hepatocellular Adenoma TGLs = 6-12]
 Cardiomyopathy
Nephropathy
Hepatocellular Adenoma
Mixed Cell Focus
Minimal
Chronicprogr, Minimal
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 7-10]
 Infiltration Cellular
Histiocyte, Mild
- Lymph Node
 - Mediastinal
 - [Erythrophagocytosis TGLs = 8,9-20]
 Erythrophagocytosis
Marked
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 Lymphocyte, Moderate
Plasma Cell, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1743

TRT#: 6

SEX: Female

DAY ON TEST: 745

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1743

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-----------------------------------|-------------------------------|---------------------|
| * Mammary Gland | | Fibroadenoma | Multiple |
| | | Hyperplasia | Marked |
| | [Fibroadenoma TGLs = 1,4-20,21] | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Intermed | Hyperplasia | Marked |
| | [Adenoma TGLs = 11-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Minimal |
| | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | Follicle | Cyst | |
| | C Cell | Hyperplasia | Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1744

TRT#: 6

SEX: Female

DAY ON TEST: 739

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1744

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Pituitary Gland
- * Stomach, Forestomach
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Glandular
- * Bone Marrow
- * Heart
- * Intestine Small, Ileum
- * Pancreas
- Skeletal Muscle
- * Trachea
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Skin
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Hyperplasia
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
- * Harderian Gland
 - Inflammation
- * Intestine Large, Rectum
 - Hyperplasia
- * Kidney
 - Nephropathy
- * Liver
 - Bile Duct
 - Hyperplasia
 - Mixed Cell Focus
- * Lung
 - [Mixed Cell Focus TGLs = 5-12]
 - Alveolus
 - [Infiltration Cellular TGLs = 2-10.1]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Mammary Gland
 - Fibroadenoma
 - Hyperplasia
- * Nerve Trigeminal
 - [Fibroadenoma TGLs = 1-20]
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Ovary
 - Atrophy
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1744

TRT#: 6

SEX: Female

DAY ON TEST: 739

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1744

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|---------------------|
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Marked |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Adenoma | |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Dilation | Minimal |

Animal Note: TGLs 3,4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1745

TRT#: 6

SEX: Female

DAY ON TEST: 531

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1745

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Kidney | * Lymph Node, Mesenteric |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach |
| * Stomach, Glandular | * Thyroid Gland | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|--|---------------|-------------------------------|-----------------------|
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Bone Marrow | | Hypercellularity | Marked |
| * Clitoral Gland | Duct | Dilation | Marked |
| * Heart | | Cardiomyopathy | Minimal |
| * Liver | | Eosinophilic Focus | |
| | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| [Infiltration Cellular TGLs = 5-10] | | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Moderate |
| | | Fibroadenoma | |
| | | Galactocele | |
| | | Hyperplasia | Mild |
| | | Inflammation | Granulomatous, Marked |
| Note: Inflammation likely secondary to ruptured galactocele. | | | |
| | | [Fibroadenoma TGLs = 1-20] | |
| | | [Galactocele TGLs = 2-21] | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1745

TRT#: 6

SEX: Female

DAY ON TEST: 531

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1745

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Salivary Glands | Sublingual GI | Atrophy | Moderate |
| | Parotid GI | Vacuolation, Cytoplasmic | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Epithelium | Metaplasia | Squamous, Mild |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGLs 3,4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1746

TRT#: 6

SEX: Female

DAY ON TEST: 493

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1746

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Skin
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Ovary
- * Salivary Glands
- * Spinal Cord, Lumbar
- * Thyroid Gland
- * Uterus
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Pancreas
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Clitoral Gland
- * Kidney
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 2-10]
- * Mammary Gland
- [Fibroadenoma TGLs = 1-20]
- * Nose
- Note: Level 3 largely absent.
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Spleen
- * Thymus
- Duct
- Alveolus
- Olfactory Epi
- Hyperplasia
- Hypercellularity
- Dilation
- Nephropathy
- Eosinophilic Focus
- Mixed Cell Focus
- Infiltration Cellular
- Fibroadenoma
- Accumulation, Hyaline Droplet
- Degeneration
- Degeneration
- Extramedullary Hematopoiesis
- Pigment
- Atrophy
- Cyst
- Hyperplasia
- Mild
- Mild
- Moderate
- Chronicprogr, Minimal
- Histiocyte, Minimal
- Mild
- Minimal
- Minimal
- Moderate
- Minimal
- Moderate
- Epithelial, Minimal

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1747

TRT#: 6

SEX: Female

DAY ON TEST: 464

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1747

ORGAN AND ACCOUNTABLE SITE STATUS

* Spinal Cord, Cervical

Degeneration

Minimal

* Spleen

Extramedullary Hematopoiesis

Marked

Pigment

Minimal

[Extramedullary Hematopoiesis TGLs = 2-12]

* Thymus

Atrophy

Mild

Hyperplasia

Epithelial, Minimal

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1749

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1749

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Aorta | * Bone | * Brain | * Esophagus |
| * Eye | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Kidney | * Lymph Node, Mandibular | * Lymph Node, Mesenteric |
| * Ovary | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| Skeletal Muscle | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|---|--|------------------------------|-------------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Bone Marrow | | Hypercellularity | Marked |
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Clitoral Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Minimal |
| | [Dilation TGLs = 4,5-16] | | |
| * Harderian Gland | | Atrophy | Minimal |
| * Liver | | Extramedullary Hematopoiesis | Minimal |
| | Bile Duct | Hyperplasia | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Moderate |
| | [Infiltration Cellular TGLs = 10-10] | | |
| Lymph Node | Iliac, Lymph Sinus | Ectasia | Mild |
| | Mediastinal | Erythrophagocytosis | Minimal |
| | Iliac | Hyperplasia | Lymphocyte, Minimal |
| | Iliac | Proliferation | Plasma Cell, Mild |
| | [Erythrophagocytosis TGLs = 9-22] | | |
| | [Proliferation TGLs = 8-21] | | |
| * Mammary Gland | | Fibroadenoma | Multiple |
| | | Hyperplasia | Marked |

Note: Fibroadenoma present in routine section of mammary gland.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1749

TRT#: 6

SEX: Female

DAY ON TEST: 740

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1749

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroadenoma TGLs = 1,2-20,21]

| | | | |
|--|---------------|---|---------------------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Salivary Glands | Sublingual GI | Atrophy | Minimal |
| * Skin | | Cyst Epithelial Inclusion | |
| [Cyst Epithelial Inclusion TGLs = 3-22] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis Pigment | Marked Minimal |
| [Extramedullary Hematopoiesis TGLs = 7-12] | | | |
| * Thymus | | Atrophy Cyst | Marked |
| * Uterus | | Hyperplasia Polyp Stromal | Epithelial, Minimal |
| [Polyp Stromal TGLs = 6-16] | | | |

Animal Note: TGL 11 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1751

TRT#: 6

SEX: Female

DAY ON TEST: 711

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1751

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|------------------------------|---------|
| * Pituitary Gland [Adenoma TGLs = 1-4] | Pars Distalis | Adenoma | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Stomach, Forestomach | | Edema | Minimal |
| | Epithelium | Hyperplasia | Mild |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGL 5 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1752

TRT#: 6

SEX: Female

DAY ON TEST: 744

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1752

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Forestomach
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Stomach, Glandular
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea
- * Bone Marrow
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
- * Brain
- * Clitoral Gland
- * Kidney
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 7-10]
- * Mammary Gland
- [Fibroadenoma TGLs = 1-20]
- * Nerve Trigeminal
- * Nose
- * Ovary
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- [Hyperplasia TGLs = 8-4]
- * Spinal Cord, Lumbar
- * Spleen
- * Thymus
- Hypertrophy
- Glial Cell
- Duct
- Alveolus
- Duct
- Olfactory Epi
- Pars Distalis
- Nerve
- Fibroadenoma
- Degeneration
- Accumulation, Hyaline Droplet
- Atrophy
- Degeneration
- Degeneration
- Hyperplasia
- Degeneration
- Extramedullary Hematopoiesis
- Pigment
- Atrophy
- Cyst
- Minimal
- Mild
- Minimal
- Chronicprogr, Minimal
- Histiocyte, Minimal
- Mild
- Moderate
- Marked
- Marked
- Minimal
- Minimal
- Mild
- Minimal
- Mild
- Mild
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1752

TRT#: 6

SEX: Female

DAY ON TEST: 744

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1752

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|------------|---|-------------------------------|
| * Thyroid Gland [Carcinoma TGLs = 6-8] Trigeminal Ganglion | C Cell | Hyperplasia Carcinoma | Epithelial, Minimal |
| * Uterus [Polyp Stromal TGLs = 3-16] | Epithelium | Degeneration Metaplasia Polyp Stromal | Minimal Squamous, Moderate |

Animal Note: TGLs 2,4,5 = NCL (No Corresponding Lesion)

Animal Note: TGL 9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1754

TRT#: 6

SEX: Female

DAY ON TEST: 741

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1754

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------|-------------|--------------|----------------------|
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | | Inflammation | Suppurative, Minimal |
| | Epithelium | Metaplasia | Squamous, Mild |

Animal Note: TGLs 3,4,6 = NCL (No Corresponding Lesion)

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1755

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1755

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Trachea
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- Trigeminal Ganglion

MISSING

- * Nerve Trigeminal

OBSERVATIONS

- * Adrenal Medulla Pheochromocytoma Benign
- * Bone Marrow Hypercellularity Mild
- * Brain
- Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland Duct Dilation Minimal
- Inflammation Chronic Active, Minimal
- * Heart Cardiomyopathy Mild
- * Kidney Nephropathy Chronicprogr, Moderate
- [Nephropathy TGLs = 9-13]
- * Liver Angiectasis Minimal
- [Angiectasis TGLs = 10,14-20,21]
- * Lung Congestion Minimal
- [Congestion TGLs = 11-10]
- * Lymph Node, Mandibular Proliferation Plasma Cell, Mild
- * Mammary Gland Adenoma Moderate
- Duct Dilation Multiple
- Fibroadenoma
- [Adenoma TGLs = 1-20]
- [Fibroadenoma TGLs = 2,3,4-21,22,23]
- * Nose Olfactory Epi Accumulation, Hyaline Droplet Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1755

TRT#: 6

SEX: Female

DAY ON TEST: 738

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1755

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------------------------------|------------------------------|--------------------------|
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 12,13-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Basal Cell, Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| | Artery | Inflammation | Chronic Active, Moderate |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Tissue NOS | Fat | Necrosis | Mild |
| | [Necrosis TGLs = 5-22] | | |
| * Uterus | | Adenomyosis | Minimal |
| | | Inflammation | Chronic Active, Moderate |
| | | Polyp Stromal | Multiple |
| Note: One of the polyps was a glandular polyp | | | |
| | [Inflammation TGLs = 6-16] | | |
| | [Polyp Stromal TGLs = 7-16,20,8-23] | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1756

TRT#: 6

SEX: Female

DAY ON TEST: 739

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1756

ORGAN AND ACCOUNTABLE SITE STATUS

[Dilation TGLs = 1-9]

[Fibroadenoma TGLs = 2,4,5-20,22,23]

[Galactocele TGLs = 7-24]

* Nerve Trigeminal

Degeneration

Mild

* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Minimal

* Ovary

Cyst

[Cyst TGLs = 8-16]

* Peripheral Nerve, Sciatic

Degeneration

Minimal

* Peripheral Nerve, Tibial

Degeneration

Minimal

Note: Longitudinal section available for evaluation.

* Pituitary Gland

Pars Distalis

Adenoma

[Adenoma TGLs = 12-4]

* Spinal Cord, Lumbar

Nerve

Degeneration

Minimal

* Spinal Cord, Thoracic

Degeneration

Minimal

* Spleen

Red Pulp

Atrophy

Mild

Extramedullary Hematopoiesis

Minimal

Pigment

Moderate

* Thymus

Atrophy

Mild

Cyst

Hyperplasia

Lymphocyte, Mild

* Thyroid Gland

C Cell

Hyperplasia

Minimal

* Uterus

Epithelium

Metaplasia

Squamous, Minimal

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1757

TRT#: 6

SEX: Female

DAY ON TEST: 493

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1757

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Ovary
- * Salivary Glands
- * Spinal Cord, Lumbar
- * Thyroid Gland
- * Uterus
- * Adrenal Medulla
- * Clitoral Gland
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Pancreas
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Trachea
- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Skin
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Urinary Bladder

OBSERVATIONS

- * Bone Marrow
- * Kidney
- * Liver
- * Lung
- * Mammary Gland
- * Nose
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Spleen
- * Thymus
- Bile Duct
- Alveolus
- [Fibroadenoma TGLs = 2,3-20,21]
- Olfactory Epi
- Respirat Epith
- Hypercellularity
- Nephropathy
- Eosinophilic Focus
- Hyperplasia
- Mixed Cell Focus
- Infiltration Cellular
- Fibroadenoma
- Hyperplasia
- Accumulation, Hyaline Droplet
- Accumulation, Hyaline Droplet
- Degeneration
- Degeneration
- Extramedullary Hematopoiesis
- Pigment
- Atrophy
- Moderate
- Chronicprogr, Minimal
- Minimal
- Histiocyte, Minimal
- Multiple
- Minimal
- Mild
- Mild
- Minimal
- Minimal
- Moderate
- Mild
- Moderate

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1758

TRT#: 6

SEX: Female

DAY ON TEST: 741

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1758

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Peripheral Nerve, Tibial | * Pituitary Gland | * Salivary Glands | Skeletal Muscle |
| * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | * Urinary Bladder | | |

MISSING

Trigeminal Ganglion

OBSERVATIONS

- | | | | |
|---|--------------|-----------------------------|-------------------------|
| * Adrenal Cortex | | Degeneration Hyperplasia | Cystic, Minimal Mild |
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Clitoral Gland | Duct | Dilation | Marked |
| [Dilation TGLs = 7-16] | | | |
| * Eye | Retina | Atrophy | Minimal |
| * Harderian Gland | | Atrophy | Minimal |
| | | Inflammation | Granulomatous, Minimal |
| * Heart | | Cardiomyopathy | Mild |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Mild |
| * Liver | | Angiectasis | Minimal |
| | | Mixed Cell Focus | |
| [Angiectasis TGLs = 10-20] | | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| [Infiltration Cellular TGLs = 9-10] | | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Moderate |
| | | Fibroadenoma | Multiple |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1758

TRT#: 6

SEX: Female

DAY ON TEST: 741

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1758

ORGAN AND ACCOUNTABLE SITE STATUS

Hyperplasia Minimal
Inflammation Granulomatous, Moderate

Note: Fibroadenoma present in routine section of mammary gland.

[Fibroadenoma TGLs = 2,6-21,25]

[Inflammation TGLs = 1-20]

* Nerve Trigeminal

Degeneration Mild

* Nose

Respirat Epith

Accumulation, Hyaline Droplet Minimal

Olfactory Epi

Accumulation, Hyaline Droplet Mild

* Ovary

Atrophy Marked

Cyst

Inflammation Chronic Active, Moderate

[Cyst TGLs = 8-16]

* Peripheral Nerve, Sciatic

Degeneration Mild

* Skin

Subcut Tiss

Cyst Epithelial Inclusion

Fibroma

Keratoacanthoma

Note: Partial rupture, glanulomatous inflammation and multifocal epithelial hyperplasia of inclusion cyst.

[Cyst Epithelial Inclusion TGLs = 4-23]

[Fibroma TGLs = 3-22]

[Keratoacanthoma TGLs = 5-24]

* Spinal Cord, Lumbar

Nerve

Degeneration Mild

* Spinal Cord, Thoracic

Degeneration Minimal

* Spleen

Extramedullary Hematopoiesis Mild

Pigment Moderate

* Thymus

Atrophy Mild

Hyperplasia Epithelial, Minimal

* Uterus

Adenomyosis Minimal

Endometrium

Hyperplasia Cystic, Mild

Epithelium

Metaplasia Squamous, Mild

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1759

TRT#: 6

SEX: Female

DAY ON TEST: 450

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1759

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Nerve Trigeminal | * Pancreas | * Parathyroid Gland |
| * Peripheral Nerve, Sciatic | * Peripheral Nerve, Tibial | * Salivary Glands | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Spinal Cord, Lumbar | * Spinal Cord, Thoracic |
| * Stomach, Forestomach | * Stomach, Glandular | * Trachea | Trigeminal Ganglion |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|-------------------|---------------------------------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Minimal |
| * Bone Marrow | | Hypercellularity | Moderate |
| * Clitoral Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Mild |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | Bile Duct | Cyst | |
| | | Infiltration Cellular | Mixed Cell, Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | [Infiltration Cellular TGLs = 2-10] | | |
| * Mammary Gland | | Fibroadenoma | |
| | | Inflammation | Chronic Active, Minimal |
| | [Fibroadenoma TGLs = 1-20] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1759

TRT#: 6

SEX: Female

DAY ON TEST: 450

DOSE: 3.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1759

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Epithelial, Mild

* Uterus

Epithelium

Hyperplasia

Minimal

Metaplasia

Squamous, Moderate

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1760

TRT#: 6

SEX: Female

DAY ON TEST: 741

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1760

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea
- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Urinary Bladder
- * Bone
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Stomach, Forestomach
- * Brain
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hyperplasia
 - Hypertrophy
 - Cystic, Minimal
 - Mild
 - Minimal
- * Adren Medulla
 - Note: One of pair available for evaluation.
- * Bone Marrow
 - Hypercellularity
 - Moderate
- * Clitoral Gland
 - Inflammation
 - Chronic, Mild
- * Eye
 - Retina
 - Atrophy
 - Minimal
- * Harderian Gland
 - Atrophy
 - Minimal
 - Inflammation
 - Chronic Active, Minimal
- * Heart
 - Cardiomyopathy
 - Minimal
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Eosinophilic Focus
- * Lung
 - Alveolus
 - Infiltration Cellular TGLs = 8-10]
 - Infiltration Cellular
 - Infiltration Cellular
 - Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Lymphocyte, Minimal
- * Mammary Gland
 - Duct
 - Dilation
 - Plasma Cell, Minimal
 - Fibroadenoma
 - Multiple
 - Hyperplasia
 - Minimal
 - [Fibroadenoma TGLs = 1,2,3,4-20,21,22,23]
- * Nerve Trigeminal
 - Degeneration
 - Moderate
- * Nose
 - Respirat Epith
 - Accumulation, Hyaline Droplet
 - Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1760

TRT#: 6

SEX: Female

DAY ON TEST: 741

DOSE: 3.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1760

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|-------------------------------|-----------------------|
| * Ovary | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | | Atrophy | Marked |
| | | Cyst | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Moderate |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Inflammation | Suppurative, Moderate |
| | Epithelium | Metaplasia | Squamous, Marked |

[Inflammation TGLs = 6,7-16]

Animal Note: TGL 5 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1866

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1866

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| Note: Pars distalis available for evaluation. | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Ectopic Parathyroid Gland | |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Adenoma | |
| | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |

[Adenoma TGLs = 5-16.1]

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1867

TRT#: 8

SEX: Female

DAY ON TEST: 696

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1867

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|---------------------------|--------------------------|-------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Brain | * Esophagus | * Harderian Gland |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Ileum | * Kidney |
| * Liver | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | * Uterus |

MISSING

- * Clitoral Gland

AUTO PRECLUDES DIAG.

- | | | | |
|----------------------|--------------------------|-----------------------------|----------------------------|
| * Eye | * Intestine Large, Cecum | * Intestine Small, Duodenum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | | | |

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|-------------------------------|----------------------|
| * Heart | | Cardiomyopathy | Minimal |
| * Lung | | Congestion | Mild |
| | Alveolus | Infiltration Cellular | Histiocyte, Moderate |
| | [Congestion TGLs = 6-10] | | |
| | [Infiltration Cellular TGLs = 7-10] | | |
| * Lymph Node, Mandibular | | Congestion | Mild |
| | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| | [Congestion TGLs = 9-9] | | |
| * Mammary Gland | Duct | Dilation | Mild |
| | | Fibroadenoma | |
| | | Hyperplasia | Moderate |
| | [Fibroadenoma TGLs = 1-20] | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1867

TRT#: 8

SEX: Female

DAY ON TEST: 696

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1867

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|--------------|---------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 8-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| | | Degeneration | Minimal |
| * Spleen | White Pulp | Atrophy | Mild |
| | Red Pulp | Atrophy | Marked |
| | | Pigment | Marked |
| * Thymus | | Hemorrhage | Mild |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 2,3,4,5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1868

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1868

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Thyroid Gland
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Kidney
- * Pituitary Gland
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - [Degeneration TGLs = 4,5-7]
- * Clitoral Gland
 - [Inflammation TGLs = 3-16]
- * Eye
- * Heart
- * Liver
 - [Mixed Cell Focus TGLs = 7-21]
- * Lung
 - [Infiltration Cellular TGLs = 6-10]
- * Mammary Gland
 - [Fibroadenoma TGLs = 1-20]
 - [Galactocele TGLs = 2-9]
- * Nerve Trigeminal
- * Nose
- * Ovary
- * Parathyroid Gland
- * Peripheral Nerve, Sciatic
- Degeneration
- Hypertrophy
- Dilation
- Inflammation
- Atrophy
- Dysplasia
- Cardiomyopathy
- Mixed Cell Focus
- Infiltration Cellular
- Fibroadenoma
- Galactocele
- Degeneration
- Accumulation, Hyaline Droplet
- Atrophy
- Hyperplasia
- Degeneration
- Cystic, Marked
- Mild
- Minimal
- Chronic Active, Mild
- Minimal
- Minimal
- Minimal
- Histiocyte, Minimal
- Mild
- Minimal
- Marked
- Mild
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1868

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1868

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|-------------|------------------------------|-------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Cyst | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | | Polyp Stromal | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1869

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1869

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Ovary
- * Spinal Cord, Cervical
- Trigeminal Ganglion
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
- * Clitoral Gland
- [Dilation TGLs = 6,7-16]
- * Heart
- * Kidney
- * Liver
- [Mixed Cell Focus TGLs = 8,12-12,20]
- * Lung
- [Infiltration Cellular TGLs = 10-10]
- * Mammary Gland
- [Fibroadenoma TGLs = 2,3,4-21,22,23]
- [Hyperplasia TGLs = 5-9]
- * Nerve Trigeminal
- * Nose
- * Pancreas
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- Duct
- Alveolus
- Duct
- Degeneration
- Accumulation, Hyaline Droplet
- Inflammation
- Degeneration
- Degeneration
- Adenoma
- Hypertrophy
- Dilation
- Inflammation
- Cardiomyopathy
- Nephropathy
- Mixed Cell Focus
- Infiltration Cellular
- Inflammation
- Dilation
- Fibroadenoma
- Hyperplasia
- Minimal
- Marked
- Chronic Active, Minimal
- Minimal
- Chronicprogr, Mild
- Histiocyte, Mild
- Granulomatous, Minimal
- Minimal
- Multiple
- Marked
- Mild
- Mild
- Chronic Active, Minimal
- Minimal
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1869

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1869

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Pars distalis available for evaluation.

[Adenoma TGLs = 11-4]

| | | | |
|-------------------------|---------------------------------|------------------------------|---------------------|
| * Skin | | Keratoacanthoma | |
| | [Keratoacanthoma TGLs = 1-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | Bilateral, C Cell | Adenoma | |
| | [Adenoma TGLs = 9-8] | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |

Animal Note: TGL 8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1870

TRT#: 8

SEX: Female

DAY ON TEST: 737

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1870

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Esophagus |
| * Eye | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Nose | * Pancreas | * Parathyroid Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|-----------------------------|-----------------------------------|------------------|------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Bone Marrow | | Hypercellularity | Moderate |
| * Brain | | Compression | Minimal |
| * Clitoral Gland | | Inflammation | Granulomatous, Minimal |
| * Harderian Gland | | Inflammation | Granulomatous, Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | | Mixed Cell Focus | |
| * Lung | | Inflammation | Granulomatous, Minimal |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Minimal |
| | | Fibroadenoma | Multiple |
| | [Fibroadenoma TGLs = 1,2-20,21] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 3-4] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1870

TRT#: 8

SEX: Female

DAY ON TEST: 737

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1870

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------------|------------------------------|----------------------|
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | | Inflammation | Chronic Active, Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1871

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1871

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Kidney
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lung
- * Salivary Glands
- * Stomach, Forestomach

MISSING

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hypertrophy
- * Bone Marrow
 - Hypercellularity
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
- * Heart
 - Cardiomyopathy
- * Liver
 - Eosinophilic Focus
 - Hepatocellular Carcinoma
- [Hepatocellular Carcinoma TGLs = 6-20]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
- [Fibroadenoma TGLs = 1,2,3-9,21,22]
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Respirat Epith
 - Accumulation, Hyaline Droplet
 - Hyperplasia
- * Ovary
 - Atrophy
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1871

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1871

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|------------------------------|------------------|
| * Pituitary Gland [Adenoma TGLs = 7-4] | Pars Distalis | Adenoma | |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Tissue NOS | Fat | Necrosis | Mild |
| Note: Necrosis in inguinal region. [Necrosis TGLs = 5-20] | | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |
| | | Polyp Stromal | |
| [Polyp Stromal TGLs = 4,8-16] | | | |
| Vagina | | Cyst | |
| [Cyst TGLs = 9-23RT] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1872

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1872

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Extramedullary Hematopoiesis

Mild

Pigment

Moderate

* Uterus

Endometrium

Hyperplasia

Cystic, Minimal

Epithelium

Metaplasia

Squamous, Minimal

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1873

TRT#: 8

SEX: Female

DAY ON TEST: 638

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1873

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Esophagus
- * Harderian Gland
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Ileum
- * Islets, Pancreatic
- * Kidney
- * Lymph Node, Mandibular
- * Lymph Node, Mesenteric
- * Pancreas
- * Parathyroid Gland
- * Salivary Glands
- Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea
- Trigeminal Ganglion
- * Urinary Bladder
- * Uterus

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Large, Cecum
- * Intestine Small, Duodenum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Brain
 - Note: Olfactory bulbs not available for evaluation.
- * Clitoral Gland
 - [Inflammation TGLs = 6-16]
- * Heart
- * Liver
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 5-10]
- * Mammary Gland
 - Duct
 - Note: Galactoceles are inflamed.
 - [Galactocoele TGLs = 1,2-20,21]
- * Nerve Trigeminal
- * Nose
 - Olfactory Epi
- * Ovary
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
 - Pars Distalis
 - [Adenoma TGLs = 3,4-4,20]

- Compression
- Mild
- Inflammation
- Chronic Active, Moderate
- Cardiomyopathy
- Minimal
- Congestion
- Minimal
- Congestion
- Minimal
- Infiltration Cellular
- Histiocyte, Mild
- Dilation
- Mild
- Galactocoele
- Degeneration
- Minimal
- Accumulation, Hyaline Droplet
- Mild
- Atrophy
- Moderate
- Degeneration
- Minimal
- Degeneration
- Minimal
- Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1873

TRT#: 8

SEX: Female

DAY ON TEST: 638

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1873

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------|--------------|----------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Pigment | Moderate |
| * Thymus | | Hemorrhage | Mild |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1874

TRT#: 8

SEX: Female

DAY ON TEST: 737

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1874

ORGAN AND ACCOUNTABLE SITE STATUS

[Erythrophagocytosis TGLs = 5-21]

* Lymph Node, Mandibular

Hyperplasia

Lymphocyte, Mild

Proliferation

Plasma Cell, Minimal

* Mammary Gland

Adenocarcinoma

Duct

Dilation

Minimal

[Adenocarcinoma TGLs = 1-20]

* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Moderate

* Ovary

Atrophy

Marked

Cyst

[Cyst TGLs = 3-16.1]

* Peripheral Nerve, Sciatic

Degeneration

Minimal

* Peripheral Nerve, Tibial

Degeneration

Minimal

* Pituitary Gland

Pars Distalis

Hyperplasia

Minimal

* Skin

Cyst Epithelial Inclusion

* Spinal Cord, Lumbar

Nerve

Degeneration

Mild

* Spinal Cord, Thoracic

Degeneration

Mild

* Spleen

Extramedullary Hematopoiesis

Marked

[Extramedullary Hematopoiesis TGLs = 2-12]

* Stomach, Forestomach

Edema

Mild

Epithelium

Hyperplasia

Moderate

Inflammation

Chronic Active, Mild

* Thymus

Atrophy

Mild

Cyst

* Thyroid Gland

C Cell

Hyperplasia

Mild

* Uterus

Endometrium

Hyperplasia

Cystic, Minimal

Epithelium

Metaplasia

Squamous, Minimal

Animal Note: TGLs 6,8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1876

TRT#: 8

SEX: Female

DAY ON TEST: 651

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1876

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Harderian Gland
- * Kidney
- * Pancreas
- Skeletal Muscle
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Aorta
- * Intestine Large, Colon
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Skin
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Thyroid Gland
- * Esophagus
- * Islets, Pancreatic
- * Mammary Gland
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Trachea

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Large, Rectum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Brain
- * Clitoral Gland
- * Eye
- * Heart
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 3-10]
- Lymph Node
- Note: Renal lymph node is normal.
- [Proliferation TGLs = 6-20]
- * Nerve Trigeminal
- * Nose
- * Ovary
- [Atrophy TGLs = 4-16.1]
- * Peripheral Nerve, Sciatic
- Note: Longitudinal section available for evaluation.
- * Peripheral Nerve, Tibial
- Hyperplasia
- Hypercellularity
- Granular Cell Tumor Benign
- Dilation
- Atrophy
- Cardiomyopathy
- Extramedullary Hematopoiesis
- Infiltration Cellular
- Inflammation
- Proliferation
- Degeneration
- Accumulation, Hyaline Droplet
- Atrophy
- Degeneration
- Degeneration
- Mild
- Marked
- Moderate
- Mild
- Minimal
- Minimal
- Histiocyte, Marked
- Chronic Active, Minimal
- Plasma Cell, Mild
- Mild
- Minimal
- Mild
- Mild
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1876

TRT#: 8

SEX: Female

DAY ON TEST: 651

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1876

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------|---|------------------------------|---------------------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | [Extramedullary Hematopoiesis TGLs = 10-12] | | |
| * Thymus | | Atrophy | Moderate |
| * Uterus | | Dilation | Marked |
| | | Inflammation | Suppurative, Marked |
| | Epithelium | Metaplasia | Squamous, Marked |
| | [Dilation TGLs = 1-16.1] | | |
| | [Inflammation TGLs = 2-16.1] | | |

PRIMARY CAUSE OF DEATH - Uterus Inflammation

Animal Note: TGLs 5,7,8,9,11,12,13 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1878

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1878

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Kidney |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | Skeletal Muscle | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Trachea | * Urinary Bladder |

MISSING

Trigeminal Ganglion

OBSERVATIONS

| | | | |
|--|-----------|--|------------------------------------|
| * Adrenal Cortex | | Accessory Adrenal Cortical Nodule Degeneration Hypertrophy Vacuolation, Cytoplasmic | Cystic, Minimal Mild Minimal |
| [Degeneration TGLs = 8-7] | | | |
| * Clitoral Gland | Duct | Dilation Inflammation | Mild Chronic Active, Mild |
| [Dilation TGLs = 4-16] | | | |
| [Inflammation TGLs = 3-16] | | | |
| * Harderian Gland | | Atrophy | Minimal |
| * Liver | Bile Duct | Cyst Mixed Cell Focus | |
| Note: Intestinal metaplasia of extrahepatic bile duct epithelium within region of fibrosis adjacent to duodenum. | | | |
| [Cyst TGLs = 7-12] | | | |
| [Mixed Cell Focus TGLs = 6-20] | | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| [Infiltration Cellular TGLs = 9-10] | | | |
| * Mammary Gland | Duct | Dilation Fibroadenoma | Minimal Multiple |
| [Fibroadenoma TGLs = 1,2-20,21] | | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1878

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1878

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------------------|-------------------------------|---------------------|
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Marked |
| | | Hemorrhage | Minimal |
| | [Hemorrhage TGLs = 5-16] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Mild |

Animal Note: TGL 10 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1879

TRT#: 8

SEX: Female

DAY ON TEST: 593

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1879

ORGAN AND ACCOUNTABLE SITE STATUS

Cyst

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1880

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1880

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|---|---------------------------------------|---|--------------------------------|
| * Adrenal Cortex | | Accessory Adrenal Cortical Nodule Hypertrophy | Minimal |
| * Adren Medulla | | | |
| Note: One of pair available for evaluation. | | | |
| * Clitoral Gland | Duct | Dilation Inflammation | Marked Chronic Active, Minimal |
| | [Dilation TGLs = 1,2-16] | | |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Mixed Cell Focus | |
| | [Mixed Cell Focus TGLs = 4-20] | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 5-10] | | |
| * Mammary Gland | Duct | Dilation | Mild |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy Cyst | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis Pars Intermed | Adenoma Cyst | |
| | [Adenoma TGLs = 6-4] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1880

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1880

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------------|------------------------------|--------------|
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |

Animal Note: TGLs 3,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1881

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1881

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Uterus | | Inflammation | Acute, Minimal |
| | Epithelium | Metaplasia | Squamous, Marked |

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1884

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1884

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Salivary Glands
- * Stomach, Glandular
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Trachea
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Urinary Bladder

INSUFFICIENT TISSUE

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - [Necrosis TGLs = 9-7]
 - * Adrenal Medulla
 - [Necrosis TGLs = 9-7]
 - * Bone Marrow
 - * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
 - * Clitoral Gland
 - Duct
 - * Eye
 - Retina
 - * Liver
 - Bile Duct
 - * Lung
 - [Angiectasis TGLs = 8-21]
 - [Mixed Cell Focus TGLs = 6,7-20,21]
 - * Lung
 - [Infiltration Cellular TGLs = 10-10]
 - Lymph Node
 - Lumbar, Lymph Sinus
 - Lumbar
- | | | |
|--|--------------------------|-------------------------|
| | Necrosis | Marked |
| | Vacuolation, Cytoplasmic | Mild |
| | Necrosis | Marked |
| | Hypercellularity | Marked |
| | Dilation | Mild |
| | Inflammation | Chronic Active, Minimal |
| | Atrophy | Minimal |
| | Angiectasis | Minimal |
| | Cyst | |
| | Eosinophilic Focus | |
| | Mixed Cell Focus | |
| | Infiltration Cellular | Histiocyte, Minimal |
| | Ectasia | Minimal |
| | Hyperplasia | Lymphocyte, Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1884

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1884

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|-----------------------------------|-------------------------------|----------------------|
| | [Hyperplasia TGLs = 4-20] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Minimal |
| | | Fibroadenoma | Multiple |
| | | Hyperplasia | Minimal |
| | | Inflammation | Acute, Minimal |
| | [Fibroadenoma TGLs = 1,2-20,21] | | |
| Mesentery | | Necrosis | Moderate |
| | [Necrosis TGLs = 5-21] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Marked |
| | | Cyst | |
| | [Cyst TGLs = 3-16.1] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| Note: Longitudinal section available for evaluation. | | | |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |

Animal Note: TGL 11 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1885

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1885

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nose
- Skeletal Muscle
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Stomach, Glandular
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Liver
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Lumbar
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Clitoral Gland
- * Harderian Gland
- * Heart
- * Kidney
- * Lung
- [Infiltration Cellular TGLs = 2-10]
- * Lymph Node, Mandibular
- * Mammary Gland
- [Fibroadenoma TGLs = 1-20]
- * Nerve Trigeminal
- * Ovary
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Spinal Cord, Thoracic
- * Spleen
- Duct
- Ventricl Rgt
- Alveolus
- Duct
- Pars Distalis
- Hypertrophy
- Dilation
- Inflammation
- Cardiomyopathy
- Cardiomyopathy
- Nephropathy
- Infiltration Cellular
- Hyperplasia
- Proliferation
- Dilation
- Fibroadenoma
- Degeneration
- Atrophy
- Degeneration
- Degeneration
- Adenoma
- Degeneration
- Extramedullary Hematopoiesis
- Pigment
- Minimal
- Minimal
- Granulomatous, Minimal
- Minimal
- Minimal
- Chronicprogr, Minimal
- Histiocyte, Mild
- Lymphocyte, Minimal
- Plasma Cell, Minimal
- Mild
- Mild
- Marked
- Mild
- Mild
- Minimal
- Mild
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1885

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1885

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------|------------|-------------|---------------------|
| * Thymus | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |
| * Uterus | Epithelium | Metaplasia | Squamous, Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1886

TRT#: 8

SEX: Female

DAY ON TEST: 557

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1886

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Bone Marrow | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lung | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Spinal Cord, Lumbar | * Spinal Cord, Thoracic | * Stomach, Forestomach |
| * Stomach, Glandular | * Thyroid Gland | * Trachea | Trigeminal Ganglion |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|-----------------------------|--------------------------------------|-------------------------------------|-----------------------|
| * Brain | | Compression Meningioma Malignant | Mild |
| | [Compression TGLs = 4-2] | | |
| | [Meningioma Malignant TGLs = 3-20] | | |
| * Clitoral Gland | | Inflammation | Chronic Active, Mild |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Basophilic Focus | |
| * Lymph Node, Mandibular | Lymph Sinus | Ectasia | Minimal |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Minimal |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Pigment | Mild |
| | [Atrophy TGLs = 2-12] | | |
| * Thymus | | Atrophy | Mild |
| * Uterus | Epithelium | Metaplasia | Squamous, Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1886

TRT#: 8

SEX: Female

DAY ON TEST: 557

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1886

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH - Brain Meningioma Malignant

Animal Note: TGL 1 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1888

TRT#: 8

SEX: Female

DAY ON TEST: 737

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1888

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|---------------|----------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 4-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Minimal |
| | | Pigment | Moderate |
| * Stomach, Forestomach | | Edema | Mild |
| | | Inflammation | Acute, Minimal |
| | | Ulcer | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Cyst | |
| | | Polyp Stromal | |

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1889

TRT#: 8

SEX: Female

DAY ON TEST: 745

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1889

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Stomach, Forestomach
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Stomach, Glandular
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Trachea
- * Bone Marrow
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Skin
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - [Hypertrophy TGLs = 4-7]
- * Brain
 - [Compression TGLs = 6-2]
- * Clitoral Gland
 - [Dilation TGLs = 2-16]
- * Kidney
- * Liver
- * Lung
 - [Infiltration Cellular TGLs = 5-10]
- * Mammary Gland
 - [Dilation TGLs = 1-9]
- * Nerve Trigeminal
- * Nose
- * Ovary
 - [Cyst TGLs = 3-16]
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
 - [Adenoma TGLs = 7-4]

- Degeneration
- Hypertrophy
- Compression
- Dilation
- Inflammation
- Nephropathy
- Basophilic Focus
- Infiltration Cellular
- Dilation
- Degeneration
- Accumulation, Hyaline Droplet
- Atrophy
- Cyst
- Degeneration
- Degeneration
- Adenoma
- Cystic, Minimal
- Minimal
- Minimal
- Moderate
- Chronic Active, Minimal
- Chronicprogr, Minimal
- Histiocyte, Minimal
- Mild
- Mild
- Moderate
- Marked
- Mild
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1889

TRT#: 8

SEX: Female

DAY ON TEST: 745

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1889

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-----------------------------|------------------------------|---------------------|
| * Salivary Glands | Parotid GI | Fibrosis | Minimal |
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |
| | [Hyperplasia TGLs = 9-16] | | |

Animal Note: TGL 8 = NCL

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1890

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1890

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- * Stomach, Forestomach
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Skeletal Muscle
- * Trachea
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Skin
- * Urinary Bladder

MISSING

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Clitoral Gland
- [Dilation TGLs = 3-16]
- * Harderian Gland
- * Heart
- * Kidney
- * Liver
- Hepatocyte
- [Vacuolation, Cytoplasmic TGLs = 6-12]
- * Lung
- [Infiltration Cellular TGLs = 4-10]
- * Mammary Gland
- [Fibroadenoma TGLs = 1,2-20,21]
- * Nose
- * Ovary
- Rete Ovarii
- * Pancreas
- Duct
- Alveolus
- Duct
- Hyperplasia
- Dilation
- Inflammation
- Atrophy
- Cardiomyopathy
- Nephropathy
- Basophilic Focus
- Mixed Cell Focus
- Vacuolation, Cytoplasmic
- Infiltration Cellular
- Dilation
- Fibroadenoma
- Accumulation, Hyaline Droplet
- Atrophy
- Cyst
- Hyperplasia
- Hyperplasia
- Mild
- Marked
- Chronic Active, Minimal
- Minimal
- Minimal
- Chronicprogr, Minimal
- Mild
- Histiocyte, Mild
- Minimal
- Multiple
- Moderate
- Marked
- Marked
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1890

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1890

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|--------------------|
| * Parathyroid Gland | | Fibrosis | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| [Hyperplasia TGLs = 5-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Marked |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Mild |

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1891

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1891

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea
- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Spinal Cord, Lumbar
- Trigeminal Ganglion
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Forestomach
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Brain
- * Clitoral Gland
- [Dilation TGLs = 3-16]
- * Kidney
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 11-10]
- * Lymph Node, Mandibular
- * Mammary Gland
- [Adenoma TGLs = 7-24]
- [Dilation TGLs = 2-9,24]
- [Fibroadenoma TGLs = 1,4,5,6-20,21,22,23]
- * Nerve Trigeminal
- * Nose
- * Ovary
- Meninges
- Duct
- Alveolus
- Duct
- Degeneration
- Hypercellularity
- Hyperplasia
- Dilation
- Nephropathy
- Eosinophilic Focus
- Infiltration Cellular
- Hyperplasia
- Proliferation
- Adenoma
- Dilation
- Fibroadenoma
- Hyperplasia
- Cystic, Mild
- Moderate
- Gran Cell, Marked
- Marked
- Chronicprogr, Minimal
- Histiocyte, Mild
- Lymphocyte, Mild
- Plasma Cell, Mild
- Mild
- Multiple
- Minimal
- Mild
- Mild
- Marked
- Cyst

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1891

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1891

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------|------------------------------|---------------------|
| | Rete Ovarii | Hyperplasia | Minimal |
| [Cyst TGLs = 8-16] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Nervosa | Developmental Malformation | |
| Note: Remnant glandular tissue within pars nervosa. | | | |
| [Adenoma TGLs = 12-4] | | | |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hypoplasia | Moderate |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |

Animal Note: TGL 10 = NST (No Section Taken)

Animal Note: TGL 9 = NCL (No Correlating Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1892

TRT#: 8

SEX: Female

DAY ON TEST: 579

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1892

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Trachea
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- Skeletal Muscle
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Kidney
- * Parathyroid Gland
- * Skin
- * Stomach, Glandular
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Liver
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Thyroid Gland

MISSING

- * Nerve Trigeminal

OBSERVATIONS

- * Adrenal Cortex Hyperplasia
Hypertrophy
Hypercellularity Mild
Minimal
Marked
- * Bone Marrow
- * Brain
- Note: Olfactory bulbs not available for evaluation.
- * Clitoral Gland Duct Dilation
Inflammation
Cardiomyopathy Moderate
Chronic Active, Minimal
Minimal
- * Heart
- * Lung Alveolus Infiltration Cellular Histiocyte, Moderate
- [Infiltration Cellular TGLs = 2-10]
- * Lymph Node, Mandibular Hyperplasia
Proliferation Lymphocyte, Mild
Plasma Cell, Mild
- * Mammary Gland Duct Dilation
Fibroadenoma Minimal
- [Fibroadenoma TGLs = 1-20]
- * Nose Olfactory Epi Accumulation, Hyaline Droplet Mild
- Note: Level 3 largely absent.
- * Ovary Atrophy Moderate
- * Peripheral Nerve, Sciatic Degeneration Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1892

TRT#: 8

SEX: Female

DAY ON TEST: 579

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1892

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|------------|------------------------------|----------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Mild |
| | Nerve | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| * Uterus | Epithelium | Metaplasia | Squamous, Mild |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1893

TRT#: 8

SEX: Female

DAY ON TEST: 626

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1893

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|--------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 4-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1894

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1894

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea
- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Urinary Bladder
- * Bone
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Stomach, Forestomach
- * Bone Marrow
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular

MISSING

- * Nerve Trigeminal

INSUFFICIENT TISSUE

- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Vacuolation, Cytoplasmic
 - Minimal
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
 - Marked
 - Chronic Active, Mild
 - [Dilation TGLs = 3,4,5-16]
- * Kidney
 - Nephropathy
 - Chronicprogr, Mild
 - [Nephropathy TGLs = 6,7-13]
- * Liver
- * Lung
 - Alveolus
 - Mixed Cell Focus
 - Infiltration Cellular
 - Histiocyte, Minimal
 - [Infiltration Cellular TGLs = 8-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Lymphocyte, Minimal
 - Plasma Cell, Minimal
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - Mild
 - Multiple
 - [Fibroadenoma TGLs = 1,2-20,21]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1894

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1894

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------------------------|--|-----------------------------------|
| * Nose | Olfactory Epi Respirat Epith | Accumulation, Hyaline Droplet Hyperplasia | Mild Minimal |
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| Note: Pars distalis available for evaluation. [Adenoma TGLs = 9-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis Pigment | Mild Mild |
| * Thymus | | Atrophy Cyst | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Uterus | Endometrium Epithelium | Hyperplasia Metaplasia | Cystic, Mild Squamous, Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1895

TRT#: 8

SEX: Female

DAY ON TEST: 522

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1895

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Nerve Trigeminal
- Skeletal Muscle
- * Thyroid Gland
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- Blood Vessel
- * Bone Marrow
- * Clitoral Gland
- * Eye
- * Kidney
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 5-10]
- * Lymph Node, Mandibular
- * Mammary Gland
- Mesentery
- * Nose
- * Ovary
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Spinal Cord, Lumbar
- Pulmn Artery
- Duct
- Retina
- Alveolus
- Duct
- Vein
- Olfactory Epi
- Pars Distalis
- Nerve
- Hypertrophy
- Hyperplasia
- Degeneration
- Hypercellularity
- Dilation
- Inflammation
- Dysplasia
- Nephropathy
- Extramedullary Hematopoiesis
- Infiltration Cellular
- Infiltration Cellular
- Proliferation
- Dilation
- Inflammation
- Accumulation, Hyaline Droplet
- Atrophy
- Degeneration
- Degeneration
- Hyperplasia
- Degeneration
- Degeneration
- Moderate
- Minimal
- Minimal
- Minimal
- Minimal
- Minimal
- Mixed Cell, Minimal
- Histiocyte, Mild
- Plasma Cell, Mild
- Mild
- Chronic Active, Minimal
- Moderate
- Moderate
- Minimal
- Minimal
- Moderate
- Minimal
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1895

TRT#: 8

SEX: Female

DAY ON TEST: 522

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1895

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------|------------|------------------------------|------------------|
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| | | Pigment | Minimal |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| * Thymus | | Atrophy | Mild |
| * Uterus | | Dilation | Marked |
| | | Hemorrhage | Marked |
| | Epithelium | Metaplasia | Squamous, Marked |

[Dilation TGLs = 1-16]

PRIMARY CAUSE OF DEATH - Uterus Hemorrhage

Animal Note: TGLs 3,4,6 = NCL (No Corresponding Lesion)

Animal Note: TGL 2 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1896

TRT#: 8

SEX: Female

DAY ON TEST: 702

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1896

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- Skeletal Muscle
- * Thyroid Gland
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Spinal Cord, Cervical
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Parathyroid Gland
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 - Vacuolation, Cytoplasmic
- * Bone Marrow
 - Hypercellularity
- * Eye
 - Atrophy
- * Heart
 - Cardiomyopathy
- * Islets, Pancreatic
 - Carcinoma
 - Hyperplasia
- [Carcinoma TGLs = 1-6]
- * Kidney
 - Nephropathy
- * Liver
 - Cholangiofibrosis
 - Extramedullary Hematopoiesis
 - Mixed Cell Focus
- Note: Intestinal metaplasia of bile duct epithelium within region of fibrosis.
- * Lung
 - Alveolus
 - Infiltration Cellular
- [Infiltration Cellular TGLs = 5-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Mammary Gland
 - Dilation
 - Fibroadenoma
 - Hyperplasia
- [Fibroadenoma TGLs = 2,3,4-20,21,22]
- * Nerve Trigeminal
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1896

TRT#: 8

SEX: Female

DAY ON TEST: 702

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1896

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|-------------------------------|------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Moderate |
| * Pancreas | Acinus | Atrophy | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Intermed | Cyst | |
| * Skin | Subcut Tiss | Lipoma | |
| | [Lipoma TGLs = 6-23] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | [Extramedullary Hematopoiesis TGLs = 7-12] | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Moderate |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1897

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1897

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------|------------------------------|-------------------|
| * Peripheral Nerve, Sciatic | | Cyst | |
| | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| * Skin | Subcut Tiss | Fibroma | |
| | [Fibroma TGLs = 3-22] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thyroid Gland | C Cell | Adenoma | |
| | [Adenoma TGLs = 9-8] | | |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Animal Note: TGL 5= NCL

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1898

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1898

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Clitoral Gland
- * Esophagus
- * Harderian Gland
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Lymph Node, Mesenteric
- * Pancreas
- * Parathyroid Gland
- * Salivary Glands
- Skeletal Muscle
- * Skin
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thymus
- * Thyroid Gland
- * Trachea
- Trigeminal Ganglion
- * Urinary Bladder

OBSERVATIONS

- * Eye Retina Atrophy Minimal
- * Kidney Nephropathy Chronicprogr, Minimal
- * Liver
- * Lung Alveolus Infiltration Cellular TGLs = 3-10 Histiocyte, Minimal
- * Lymph Node, Mandibular Hyperplasia Lymphocyte, Minimal
- * Mammary Gland Duct Proliferation Plasma Cell, Minimal
- Dilation Minimal
- Fibroadenoma
- Galactocele
- Note: Large galactocele ruptured and inflamed.
- [Fibroadenoma TGLs = 1-20]
- [Galactocele TGLs = 2-21]
- * Nerve Trigeminal Degeneration Minimal
- * Nose Olfactory Epi Accumulation, Hyaline Droplet Minimal
- * Ovary Atrophy Marked
- Cyst
- * Peripheral Nerve, Sciatic Degeneration Mild
- * Peripheral Nerve, Tibial Degeneration Mild
- * Pituitary Gland Pars Distalis Adenoma
- Pars Distalis Cyst

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1898

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1898

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------------|------------------------------|----------------------|
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Cervix | Hyperplasia | Stromal, Marked |
| | | Inflammation | Suppurative, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |

[Hyperplasia TGLs = 4-22RT]

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1899

TRT#: 8

SEX: Female

DAY ON TEST: 711

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1899

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Parathyroid Gland
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nerve Trigeminal
- Skeletal Muscle
- * Thyroid Gland
- * Uterus
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Spinal Cord, Cervical
- * Trachea

OBSERVATIONS

- * Bone Marrow
- * Clitoral Gland
- * Liver
- * Lung
- Lymph Node
- [Proliferation TGLs = 8-20]
- * Lymph Node, Mandibular
- * Mammary Gland
- [Fibroadenoma TGLs = 2,3,4-20,21,22]
- * Nose
- * Ovary
- [Cyst TGLs = 1-16]
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Salivary Glands
- * Skin
- Duct
- Bile Duct
- Alveolus
- Iliac, Lymph Sinus
- Iliac
- Iliac
- Hypercellularity
- Dilation
- Inflammation
- Cyst
- Extramedullary Hematopoiesis
- Infiltration Cellular
- Ectasia
- Hyperplasia
- Proliferation
- Proliferation
- Fibroadenoma
- Accumulation, Hyaline Droplet
- Atrophy
- Cyst
- Degeneration
- Degeneration
- Fibrosis
- Angiectasis
- Marked
- Minimal
- Chronic Active, Mild
- Minimal
- Histiocyte, Minimal
- Minimal
- Lymphocyte, Minimal
- Plasma Cell, Mild
- Plasma Cell, Moderate
- Multiple
- Mild
- Minimal
- Mild
- Minimal
- Minimal
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1899

TRT#: 8

SEX: Female

DAY ON TEST: 711

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1899

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--|------------------------------|----------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| | [Extramedullary Hematopoiesis TGLs = 7-12] | | |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGLs 5,9 = NCL (No Corresponding Lesion)

Animal Note: TGL 6 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1901

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1901

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- Skeletal Muscle
- * Trachea
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Skin
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Kidney
- * Pituitary Gland
- * Stomach, Forestomach
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Brain
- * Heart
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 4-10]
- * Lymph Node, Mandibular
- * Mammary Gland
- * Nerve Trigeminal
- * Nose
- * Ovary
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- * Spinal Cord, Cervical
- * Spinal Cord, Lumbar
- * Spinal Cord, Thoracic
- * Spleen
- * Thymus
- Glial Cell
- Alveolus
- Duct
- Olfactory Epi
- Rete Ovarii
- Nerve
- Hypertrophy
- Hypercellularity
- Hyperplasia
- Cardiomyopathy
- Mixed Cell Focus
- Infiltration Cellular
- Hyperplasia
- Proliferation
- Dilation
- Degeneration
- Accumulation, Hyaline Droplet
- Atrophy
- Hyperplasia
- Degeneration
- Degeneration
- Degeneration
- Degeneration
- Degeneration
- Extramedullary Hematopoiesis
- Atrophy
- Cyst
- Minimal
- Marked
- Mild
- Minimal
- Minimal
- Histiocyte, Minimal
- Lymphocyte, Minimal
- Plasma Cell, Mild
- Minimal
- Minimal
- Mild
- Marked
- Minimal
- Moderate
- Mild
- Minimal
- Marked
- Moderate
- Mild
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1901

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1901

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland
Trigeminal Ganglion
* Uterus

C Cell

Hyperplasia
Hyperplasia
Degeneration
Adenocarcinoma

Epithelial, Mild
Mild
Minimal

[Adenocarcinoma TGLs = 1,2-16]

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Animal Note: TGL 5 = NCL (No Correlating Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1902

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1902

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Kidney | * Lymph Node, Mesenteric | * Pancreas | * Salivary Glands |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|---|---------------|-------------------------------|----------------------|
| * Adrenal Cortex | | Degeneration | Cystic, Mild |
| | | Hypertrophy | Minimal |
| [Hypertrophy TGLs = 5-7] | | | |
| * Bone Marrow | | Hypercellularity | Marked |
| * Clitoral Gland | Duct | Dilation | Mild |
| * Harderian Gland | | Inflammation | Chronic, Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Hyperplasia | Mild |
| * Liver | | Angiectasis | Mild |
| [Angiectasis TGLs = 7-12] | | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| [Infiltration Cellular TGLs = 8-10] | | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Mild |
| | | Fibroadenoma | Multiple |
| Note: Fibroadenoma present in routine section of mammary gland. | | | |
| [Fibroadenoma TGLs = 1,2-20,21] | | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |
| | | Cyst | |
| | Rete Ovarii | Hyperplasia | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1902

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1902

ORGAN AND ACCOUNTABLE SITE STATUS

[Cyst TGLs = 4-16]

| | | | |
|--|---------------|------------------------------|---------------------|
| * Parathyroid Gland | | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 11-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | | Polyp Stromal | Multiple |

Animal Note: TGL 3 = NST (No Section Taken)

Animal Note: TGLs 6,10 = NCL (No Corresponding Lesion)

Animal Note: TGL 9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1903

TRT#: 8

SEX: Female

DAY ON TEST: 737

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1903

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Esophagus | * Eye | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Liver | * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Thyroid Gland | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|--------------------------|-------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Brain | | Compression | Minimal |
| | [Compression TGLs = 6-2] | | |
| * Clitoral Gland | | Inflammation | Chronic Active, Minimal |
| * Harderian Gland | | Atrophy | Minimal |
| * Heart | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Hyperplasia | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 4-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Mild |
| | | Fibroadenoma | |
| | | Galactocele | |
| | | Hyperplasia | Minimal |
| | [Fibroadenoma TGLs = 1-20] | | |
| | [Galactocele TGLs = 2-9] | | |
| Mesentery | | Inflammation | Chronic Active, Minimal |
| | [Inflammation TGLs = 3-12] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1903

TRT#: 8

SEX: Female

DAY ON TEST: 737

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1903

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|-------------------------------|--------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 5-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Moderate |
| [Hyperplasia TGLs = 7-16] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1905

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1905

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|---------------------|
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Stomach, Forestomach | | Sarcoma | |
| * Thymus | | Atrophy | Mild |
| | | Ectopic Parathyroid Gland | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Carcinoma | |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1906

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1906

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Harderian Gland | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Kidney | * Lymph Node, Mesenteric | * Ovary |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | * Uterus |

OBSERVATIONS

| | | | |
|---|---------------|---|------------------------------|
| * Adrenal Cortex | | Degeneration Hyperplasia | Cystic, Moderate Moderate |
| * Adren Medulla | | | |
| Note: One of pair available for evaluation. | | | |
| * Bone Marrow | | Hypercellularity | Mild |
| * Clitoral Gland | Duct | Dilation | Marked |
| [Dilation TGLs = 3,4-16] | | | |
| * Eye | Retina | Atrophy | Minimal |
| * Islets, Pancreatic | | Adenoma | |
| * Liver | | Infiltration Cellular Mixed Cell Focus | Mixed Cell, Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| [Infiltration Cellular TGLs = 6-10] | | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | | Fibroadenoma Hyperplasia | Marked |
| [Fibroadenoma TGLs = 1-20] | | | |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1906

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1906

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|----------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| [Atrophy TGLs = 5-6] | | | |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |

Animal Note: TGL 2 = NST (No Section Taken)

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1907

TRT#: 8

SEX: Female

DAY ON TEST: 587

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1907

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- Trigeminal Ganglion
- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- Skeletal Muscle
- * Urinary Bladder
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Nerve Trigeminal
- * Skin
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Trachea

OBSERVATIONS

- * Adrenal Cortex Lymphoma Malignant
- * Bone Marrow Hypercellularity Marked
- * Brain Lymphoma Malignant
- [Lymphoma Malignant TGLs = 14-2,20]
- * Clitoral Gland Duct Dilation Mild
- [Dilation TGLs = 7-16]
- * Kidney Lymphoma Malignant
- * Liver Hepatocyte Hypertrophy Mild
- Lymphoma Malignant
- [Hypertrophy TGLs = 12-12]
- [Lymphoma Malignant TGLs = 11-12]
- * Lung Hemorrhage Mild
- Lymphoma Malignant
- [Hemorrhage TGLs = 9-10]
- [Lymphoma Malignant TGLs = 10-10]
- Lymph Node Renal Lymphoma Malignant
- Iliac Lymphoma Malignant
- Mediastinal Lymphoma Malignant
- [Lymphoma Malignant TGLs = 2-21]
- [Lymphoma Malignant TGLs = 3-22]
- [Lymphoma Malignant TGLs = 5-23]
- * Lymph Node, Mandibular Lymphoma Malignant
- [Lymphoma Malignant TGLs = 1-9]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1907

TRT#: 8

SEX: Female

DAY ON TEST: 587

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1907

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|------------------------------|-----------------------------------|--------------------------------------|
| * Lymph Node, Mesenteric [Lymphoma Malignant TGLs = 4-15] | | Lymphoma Malignant | |
| * Mammary Gland Duct | | Dilation Fibroadenoma | Minimal |
| Note: Mammary tumor infiltrated by malignant lymphoma. [Fibroadenoma TGLs = 13-20] | | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy Cyst | Mild |
| | Rete Ovarii | Hyperplasia Lymphoma Malignant | Minimal |
| * Pancreas | | Lymphoma Malignant | |
| * Peripheral Nerve, Sciatic Note: Longitudinal section available for evaluation. | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Salivary Glands | Parotid GI Submandibul GI | Atrophy Atrophy | Moderate Mild |
| * Spinal Cord, Cervical [Lymphoma Malignant TGLs = 15-3] | | Lymphoma Malignant | |
| * Spinal Cord, Lumbar [Lymphoma Malignant TGLs = 16-3] | | Lymphoma Malignant | |
| * Spinal Cord, Thoracic | | Lymphoma Malignant | |
| * Spleen [Lymphoma Malignant TGLs = 6-12] | | Lymphoma Malignant | |
| * Stomach, Forestomach | Epithelium | Hyperplasia Lymphoma Malignant | Mild |
| * Stomach, Glandular | | Erosion | Minimal |
| * Thymus | | Lymphoma Malignant | |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | Endometrium | Hyperplasia Inflammation | Cystic, Mild Suppurative, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1907

TRT#: 8

SEX: Female

DAY ON TEST: 587

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1907

ORGAN AND ACCOUNTABLE SITE STATUS

Polyp Stromal

PRIMARY CAUSE OF DEATH - Spleen Lymphoma Malignant

Animal Note: TGL 8 = NCL (No Corresponding Lesion)

Animal Note: TGL 17 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1908

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1908

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Liver
- * Salivary Glands
- * Stomach, Glandular
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Thyroid Gland
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Trachea

MISSING

- * Nerve Trigeminal

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
- * Adrenal Medulla
 - Pheochromocytoma Benign
- * Bone Marrow
 - Hypercellularity
- * Brain
 - Compression
- * Eye
 - [Compression TGLs = 8-2]
 - Retina
 - Atrophy
- * Kidney
 - Nephropathy
- * Lung
 - Alveolus
 - Infiltration Cellular TGLs = 7-10]
 - Infiltration Cellular
- * Lymph Node, Mandibular
 - Proliferation
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - [Dilation TGLs = 4-9]
 - [Fibroadenoma TGLs = 1,2,3-20,21,22]
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Ovary
 - Rete Ovarii
 - Atrophy
 - Hyperplasia
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1908

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1908

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|------------------------------|----------------------|
| * Pituitary Gland [Adenoma TGLs = 9-4] | Pars Distalis | Adenoma | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Stomach, Forestomach [Cyst TGLs = 6-14] | | Cyst | Squamous |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Mild |
| | | Polyp Stromal | |
| [Polyp Stromal TGLs = 5-16] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1910

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1910

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Thymus
- * Bone Marrow
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Brain
- * Intestine Large, Rectum
- * Liver
- * Salivary Glands
- * Stomach, Forestomach

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Degeneration
 - Hyperplasia
 - Hypertrophy
 - [Hypertrophy TGLs = 6-7]
- * Adrenal Medulla
 - Hyperplasia
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
- * Eye
 - Retina
 - Atrophy
- * Harderian Gland
 - Cyst
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
- * Islets, Pancreatic
 - Hyperplasia
- * Kidney
 - Nephropathy
- * Lung
 - Alveolus
 - Infiltration Cellular
 - [Infiltration Cellular TGLs = 8-10]
- * Lymph Node, Mandibular
 - Proliferation
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - Galactocele
 - Hyperplasia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1912

TRT#: 8

SEX: Female

DAY ON TEST: 560

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1912

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Liver
- * Peripheral Nerve, Sciatic
- * Skin
- * Thymus
- * Adrenal Medulla
- * Esophagus
- * Mammary Gland
- * Peripheral Nerve, Tibial
- * Spinal Cord, Cervical
- * Trachea
- * Aorta
- * Harderian Gland
- * Nerve Trigeminal
- * Salivary Glands
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Bone
- * Heart
- * Parathyroid Gland
- Skeletal Muscle
- * Stomach, Forestomach
- * Urinary Bladder

AUTO PRECLUDES DIAG.

- * Eye
- * Intestine Small, Duodenum
- * Kidney
- * Thyroid Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Stomach, Glandular

OBSERVATIONS

- * Bone Marrow
- * Clitoral Gland
- [Dilation TGLs = 1-16]
- * Lung
- [Infiltration Cellular TGLs = 5-10]
- * Lymph Node, Mandibular
- * Nose
- * Ovary
- * Pituitary Gland
- * Spinal Cord, Lumbar
- * Spleen
- * Uterus
- [Dilation TGLs = 2-16]
- Duct
- Alveolus
- Olfactory Epi
- Pars Distalis
- Nerve
- Hypercellularity
- Dilation
- Inflammation
- Infiltration Cellular
- Inflammation
- Infiltration Cellular
- Accumulation, Hyaline Droplet
- Atrophy
- Hyperplasia
- Degeneration
- Degeneration
- Extramedullary Hematopoiesis
- Pigment
- Dilation
- Hemorrhage
- Marked
- Marked
- Chronic Active, Mild
- Histiocyte, Minimal
- Chronic Active, Minimal
- Histiocyte, Minimal
- Mild
- Marked
- Moderate
- Minimal
- Minimal
- Moderate
- Minimal
- Marked
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1912

TRT#: 8

SEX: Female

DAY ON TEST: 560

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1912

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH - Uterus Hemorrhage

Animal Note: TGLs 3,4,6,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1913

TRT#: 8

SEX: Female

DAY ON TEST: 674

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1913

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Esophagus
- * Eye
- * Heart
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Islets, Pancreatic
- * Liver
- * Lymph Node, Mesenteric
- * Nerve Trigeminal
- * Pancreas
- * Salivary Glands
- * Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea
- Trigeminal Ganglion
- * Urinary Bladder

MISSING

- * Parathyroid Gland

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Brain
 - [Compression TGLs = 10-2]
 - Compression Moderate
- * Clitoral Gland
 - Duct
 - Dilation Moderate
 - Inflammation Chronic Active, Moderate
 - [Dilation TGLs = 3-16]
 - [Inflammation TGLs = 1,2-16]
- * Harderian Gland
 - Atrophy Minimal
 - Inflammation Granulomatous, Minimal
- * Kidney
 - Nephropathy Chronicprogr, Mild
- * Lung
 - Alveolus
 - Infiltration Cellular Histiocyte, Moderate
 - [Infiltration Cellular TGLs = 7-10]
- * Lymph Node, Mandibular
 - Hyperplasia Lymphocyte, Mild
 - Pigment Mild
- * Mammary Gland
 - Duct
 - Dilation Mild
 - Necrosis Moderate
 - [Necrosis TGLs = 6-20]
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1913

TRT#: 8

SEX: Female

DAY ON TEST: 674

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1913

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Approximately one-third of Level 3 available for evaluation.

| | | | |
|--|----------------------------------|------------------------------|-------------------|
| * Ovary | | Atrophy | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 8-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Mild |
| | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Marked |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | [Hyperplasia TGLs = 5,9-16,20] | | |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1914

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1914

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---------------|------------------------------|--------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 3-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1915

TRT#: 8

SEX: Female

DAY ON TEST: 737

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1915

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Thyroid Gland
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Trachea
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Stomach, Forestomach
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex [Hypertrophy TGLs = 7-7] Hypertrophy Minimal
- * Adrenal Medulla Hyperplasia Marked
- * Bone Marrow Hypercellularity Minimal
- * Clitoral Gland Duct Dilation Marked
- [Dilation TGLs = 1,2-16] Inflammation Chronic Active, Minimal
- * Heart Cardiomyopathy Minimal
- * Kidney Nephropathy Chronicprogr, Minimal
- * Liver Basophilic Focus
- Clear Cell Focus
- Bile Duct Cyst
- Bile Duct Hyperplasia Minimal
- [Clear Cell Focus TGLs = 5-12] Mixed Cell Focus
- [Mixed Cell Focus TGLs = 5-12]
- * Lung Alveolus Infiltration Cellular Histiocyte, Minimal
- [Infiltration Cellular TGLs = 8-10]
- * Lymph Node, Mandibular Lymph Sinus Ectasia Minimal
- Hyperplasia Lymphocyte, Minimal
- Proliferation Plasma Cell, Minimal
- * Mammary Gland Duct Dilation Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1915

TRT#: 8

SEX: Female

DAY ON TEST: 737

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1915

ORGAN AND ACCOUNTABLE SITE STATUS

Galactocele

Note: Multiple galactoceles are ruptured with granulomatous inflammation.

[Galactocele TGLs = 3,4-9,20]

| | | | |
|-----------------------------|-------------------------------|-------------------------------|------------------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Marked |
| | | Cyst | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 9,10-4] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | | Polyp Stromal | Multiple |

Animal Note: TGL 6 = NCL (No Correlating Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1916

TRT#: 8

SEX: Female

DAY ON TEST: 717

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1916

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Pancreas
- Skeletal Muscle
- * Stomach, Glandular
- * Brain
- * Intestine Large, Colon
- * Parathyroid Gland
- * Skin
- * Thyroid Gland
- * Esophagus
- * Intestine Large, Rectum
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea

MISSING

- * Adrenal Medulla

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
 - * Bone Marrow
 - * Clitoral Gland
 - * Heart
 - * Kidney
 - * Liver
 - * Lung
 - * Mammary Gland
 - Necrosis
 - Hypercellularity
 - Dilation
 - Cardiomyopathy
 - Lymphoma Malignant
 - Nephropathy
 - Lymphoma Malignant
 - Infiltration Cellular
 - Lymphoma Malignant
 - Lymphoma Malignant
 - Lymphoma Malignant
 - Lymphoma Malignant
 - Dilation
 - Moderate
 - Moderate
 - Mild
 - Mild
 - Chronicprogr, Minimal
 - Histiocyte, Mild
 - Minimal
- [Lymphoma Malignant TGLs = 6-12]
- [Infiltration Cellular TGLs = 2-10]
- [Lymphoma Malignant TGLs = 10-10]
- [Lymphoma Malignant TGLs = 1-9]
- [Lymphoma Malignant TGLs = 4-15]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1916

TRT#: 8

SEX: Female

DAY ON TEST: 717

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1916

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|----------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Lymphoma Malignant | |
| | [Lymphoma Malignant TGLs = 7,8,9-12,20] | | |
| * Thymus | | Atrophy | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Polyp Stromal | |

PRIMARY CAUSE OF DEATH - Spleen Lymphoma Malignant

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1917

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1917

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Ovary
- * Skin
- Trigeminal Ganglion
- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Salivary Glands
- * Stomach, Glandular
- * Uterus
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Adenoma
 - Hypertrophy
 - Dilation
- * Clitoral Gland
 - Duct
 - [Dilation TGLs = 1,2-16]
- * Eye
 - Retina
 - Atrophy
- * Heart
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- * Liver
 - Bile Duct
 - Cyst
 - Hepatodiaphragmatic Nodule
 - Bile Duct
 - Hyperplasia
 - Mixed Cell Focus
 - [Hepatodiaphragmatic Nodule TGLs = 4-20]
- * Lymph Node, Mandibular
 - Erythrophagocytosis
- * Mammary Gland
 - Hyperplasia
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Parathyroid Gland
 - Fibrosis
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration
- * Pituitary Gland
 - Pars Distalis
 - Hyperplasia
- * Spinal Cord, Cervical
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1917

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1917

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|---------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Adenoma | |
| [Adenoma TGLs = 6-8] | | | |

Animal Note: TGLs 3,5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1919

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1919

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Thyroid Gland
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- * Trachea
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hyperplasia
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
- [Dilation TGLs = 2-16]
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- * Liver
 - Eosinophilic Focus
 - Hepatodiaphragmatic Nodule
 - Mixed Cell Focus
- [Eosinophilic Focus TGLs = 8-20]
- [Hepatodiaphragmatic Nodule TGLs = 9-12]
- [Mixed Cell Focus TGLs = 7-12]
- * Lung
 - Alveolus
 - Infiltration Cellular
- [Infiltration Cellular TGLs = 10-10,20]
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
- [Fibroadenoma TGLs = 1,3,4,5-20,21,22,23]
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Respirat Epith
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Accumulation, Hyaline Droplet

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1919

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1919

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|-----------------|
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| Tissue NOS | Fat | Necrosis | Moderate |
| [Necrosis TGLs = 6-21] | | | |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1920

TRT#: 8

SEX: Female

DAY ON TEST: 550

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1920

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- Skeletal Muscle
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Spinal Cord, Lumbar
- * Thyroid Gland
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Nerve Trigeminal
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Trachea

MISSING

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Clitoral Gland
- * Heart
- * Kidney
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 3-10]
- * Lymph Node, Mandibular
- * Mammary Gland
- [Fibroadenoma TGLs = 2-21]
- * Nose
- Note: Level 3 largely absent.
- * Ovary
- * Peripheral Nerve, Sciatic
- Hyperplasia
- Hypertrophy
- Hypercellularity
- Dilation
- Inflammation
- Cardiomyopathy
- Nephropathy
- Mixed Cell Focus
- Infiltration Cellular
- Proliferation
- Dilation
- Fibroadenoma
- Accumulation, Hyaline Droplet
- Accumulation, Hyaline Droplet
- Atrophy
- Degeneration
- Mild
- Mild
- Mild
- Marked
- Chronic Active, Minimal
- Minimal
- Chronicprogr, Minimal
- Histiocyte, Minimal
- Plasma Cell, Minimal
- Minimal
- Minimal
- Minimal
- Minimal
- Marked
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1920

TRT#: 8

SEX: Female

DAY ON TEST: 550

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1920

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|-------------------------|------------------------------|----------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Skin | Subcut Tiss | Fibroma | |
| | [Fibroma TGLs = 1-20] | | |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| * Uterus | Epithelium | Metaplasia | Squamous, Mild |

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Fibroma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1921

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1921

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Stomach, Glandular
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Thyroid Gland

MISSING

- * Clitoral Gland
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hypertrophy
- * Bone Marrow
 - Hypercellularity
- * Harderian Gland
 - Atrophy
- * Kidney
 - Nephropathy
- * Liver
 - Eosinophilic Focus
- * Lung
 - [Eosinophilic Focus TGLs = 11-12]
 - Alveolus
 - Infiltration Cellular
 - [Infiltration Cellular TGLs = 14-22]
 - Lymph Node
 - Iliac
 - Infiltration Cellular
 - Iliac
 - Pigment
 - [Pigment TGLs = 10-21]
 - * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - Galactocele

Note: Fibroadenoma present in routine section of mammary gland.

[Fibroadenoma TGLs = 2,3,4-20,21,22]

[Galactocele TGLs = 5-16]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1921

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1921

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-----------------------------------|-------------------------------|---------------------|
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Marked |
| | | Cyst | |
| | Follicle | Cyst | |
| | [Cyst TGLs = 6-16] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 15-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | | Inflammation | Suppurative, Mild |
| | Epithelium | Metaplasia | Squamous, Marked |
| | [Inflammation TGLs = 8,9-20,21] | | |
| | [Metaplasia TGLs = 8,9-20,21] | | |

Animal Note: TGL 1 = NST (No Section Taken)

Animal Note: TGL 12 = NCL (No Corresponding Lesion)

Animal Note: TGLS 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1922

TRT#: 8

SEX: Female

DAY ON TEST: 737

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1922

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Ovary | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | * Uterus |

MISSING

- * Clitoral Gland

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------------|-----------------------|
| * Adrenal Cortex | | Hyperplasia | Minimal |
| | | Hypertrophy | Mild |
| | | Vacuolation, Cytoplasmic | Minimal |
| * Bone Marrow | | Hypercellularity | Marked |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | Kupffer Cell | Hyperplasia | Minimal |
| | Hepatocyte | Mitotic Alteration | Minimal |
| * Lung | Alveolus | Vacuolation, Cytoplasmic | Minimal |
| | [Infiltration Cellular TGLs = 2-10] | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | | Fibroadenoma | |
| | [Fibroadenoma TGLs = 1-20] | Hyperplasia | Marked |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |

Note: Cross section available for evaluation.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1922

TRT#: 8

SEX: Female

DAY ON TEST: 737

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1922

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|----------|
| Skeletal Muscle | | Degeneration | Minimal |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1923

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1923

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Bone
- * Brain
- * Esophagus
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Kidney
- * Lymph Node, Mandibular
- * Lymph Node, Mesenteric
- * Pancreas
- * Salivary Glands
- Skeletal Muscle
- * Skin
- * Spinal Cord, Cervical
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thyroid Gland
- * Trachea
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Hypertrophy Mild
 - Vacuolation, Cytoplasmic Mild
 - [Vacuolation, Cytoplasmic TGLs = 6-7]
- * Adrenal Medulla
 - Hyperplasia Minimal
- * Bone Marrow
 - Hypercellularity Moderate
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Duct
 - Dilation Minimal
 - Inflammation Chronic Active, Moderate
 - [Inflammation TGLs = 1-16]
- * Eye
 - Retina
 - Atrophy Minimal
- * Harderian Gland
 - Atrophy Minimal
 - Infiltration Cellular Lymphocyte, Minimal
- * Islets, Pancreatic
 - Adenoma
- * Liver
 - Hepatocyte
 - Necrosis Minimal
 - Inflammation Chronic Active, Minimal
- * Lung
 - Duct
 - Dilation Mild
 - Fibroadenoma
 - Hyperplasia Minimal
 - [Fibroadenoma TGLs = 2-20]
- * Nerve Trigeminal
 - Degeneration Moderate
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet Moderate
- * Ovary
 - Atrophy Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1923

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1923

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------------------------|------------------------------|---------------------|
| * Parathyroid Gland | | Cyst | |
| * Peripheral Nerve, Sciatic | | Fibrosis | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Degeneration | Mild |
| | Pars Distalis | Adenoma | |
| | | Hyperplasia | Moderate |
| | [Hyperplasia TGLs = 8-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Polyp Stromal | Multiple |
| | [Polyp Stromal TGLs = 3,4-16] | | |

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1924

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1924

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Clitoral Gland
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skin
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Spinal Cord, Cervical
- * Uterus
- * Bone
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Glandular
- * Bone Marrow
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skeletal Muscle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 - Cystic, Mild
 - Moderate
- * Brain
 - [Compression TGLs = 6-2]
 - Compression
 - Minimal
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Basophilic Focus
 - Hepatocyte
 - Vacuolation, Cytoplasmic
 - Minimal
- * Lung
 - [Infiltration Cellular TGLs = 8-10]
 - Alveolus
 - Infiltration Cellular
 - Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Lymph Sinus
 - Ectasia
 - Minimal
- * Mammary Gland
 - [Hyperplasia TGLs = 1-9]
 - Hyperplasia
 - Plasma Cell, Minimal
 - Marked
- * Nerve Trigeminal
 - Degeneration
 - Mild
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Minimal
- * Ovary
 - Atrophy
 - Moderate
- * Parathyroid Gland
 - Fibrosis
 - Mild
- * Peripheral Nerve, Sciatic
 - Degeneration
 - Mild
- * Peripheral Nerve, Tibial
 - Degeneration
 - Mild
- * Pituitary Gland
 - [Adenoma TGLs = 7-4]
 - Pars Distalis
 - Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1924

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1924

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|------------|------------------------------|----------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Moderate |
| * Stomach, Forestomach | | Edema | Mild |
| | Epithelium | Hyperplasia | Minimal |
| | | Ulcer | Mild |
| * Thymus | | Atrophy | Moderate |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |
| Trigeminal Ganglion | | Degeneration | Minimal |

Animal Note: TGLs 2,3,4,5 = NCL (No Corresponding Lesion)

Animal Note: TGL 9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1925

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1925

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--|------------------------------|---------------------|
| | Periovarn Tiss | Schwannoma Malignant | |
| | [Schwannoma Malignant TGLs = 6,7-22] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 11-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Tissue NOS | Fat | Necrosis | Moderate |
| | [Necrosis TGLs = 5-21] | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1926

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1926

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- Skeletal Muscle
- * Stomach, Glandular
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Skin
- * Trachea
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach

OBSERVATIONS

- * Adrenal Medulla
 - * Clitoral Gland
 - [Dilation TGLs = 2-16]
 - * Heart
 - * Kidney
 - * Liver
 - * Lung
 - [Infiltration Cellular TGLs = 3-10,20]
 - * Lymph Node, Mandibular
 - * Mammary Gland
 - [Fibroadenoma TGLs = 1-20]
 - * Nerve Trigeminal
 - * Nose
 - * Ovary
 - Rete Ovarii
 - * Peripheral Nerve, Sciatic
 - Note: Longitudinal section available for evaluation.
 - * Peripheral Nerve, Tibial
 - Note: Longitudinal section available for evaluation.
- Duct
 - Alveolus
 - Duct
 - Olfactory Epi
 - Rete Ovarii
- Hyperplasia
 - Dilation
 - Inflammation
 - Cardiomyopathy
 - Nephropathy
 - Mixed Cell Focus
 - Infiltration Cellular
 - Proliferation
 - Dilation
 - Fibroadenoma
 - Degeneration
 - Accumulation, Hyaline Droplet
 - Atrophy
 - Cyst
 - Hyperplasia
 - Degeneration
 - Degeneration
- Mild
 - Mild
 - Chronic Active, Minimal
 - Minimal
 - Chronicprogr, Minimal
 - Histiocyte, Minimal
 - Plasma Cell, Minimal
 - Minimal
 - Minimal
 - Moderate
 - Marked
 - Minimal
 - Minimal
 - Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1926

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1926

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|--------|------------------------------|----------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Mild |
| | | Cyst | |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Polyp Stromal | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1927

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1927

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Glandular
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Pancreas
- * Skin
- Trigeminal Ganglion
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Stomach, Forestomach
- * Urinary Bladder

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Hypertrophy
 Minimal
- * Brain
 - [Compression TGLs = 8-2]
 - Compression
 Minimal
- * Clitoral Gland
 - Duct
 - [Inflammation TGLs = 1-16]
 - Inflammation
 Mild
Chronic Active, Moderate
- * Heart
 - Ventricl Rgt
 - Cardiomyopathy
 - Cardiomyopathy
 - Carcinoma
 Minimal
Minimal
- * Islets, Pancreatic
 - [Carcinoma TGLs = 3-6]
- * Kidney
 - Nephropathy
 Chronicprogr, Minimal
- * Liver
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 7-10]
 - Infiltration Cellular
 Histiocyte, Moderate
- Lymph Node
 - Iliac, Lymph Sinus
 - Iliac
 - Iliac
 - Iliac
 - [Ectasia TGLs = 4-20]
 - Ectasia
 Mild
Lymphocyte, Minimal
Mild
Plasma Cell, Minimal
- * Lymph Node, Mandibular
 - Proliferation
 Plasma Cell, Minimal
- * Mammary Gland
 - Duct
 - [Dilation TGLs = 10-9.1]
 - Dilation
 Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1927

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1927

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|-------------------------------|-------------------------------|-----------------|
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |
| | | Cyst | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 9-4] | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Cyst | |
| * Thyroid Gland | C Cell | Adenoma | |
| | [Adenoma TGLs = 6-8] | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | [Polyp Stromal TGLs = 2-16] | Polyp Stromal | |

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1928

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1928

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- Skeletal Muscle
- * Thyroid Gland
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skin
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - [Degeneration TGLs = 2-7]
 - * Brain
 - [Compression TGLs = 5-2]
 - * Clitoral Gland
 - * Heart
 - * Kidney
 - * Liver
 - * Lung
 - [Infiltration Cellular TGLs = 4-10]
 - * Lymph Node, Mandibular
 - * Mammary Gland
 - [Dilation TGLs = 1-9]
 - * Nerve Trigeminal
 - * Nose
 - * Ovary
 - * Parathyroid Gland
- | | | | |
|--|----------------|-------------------------------|-----------------------|
| | | | |
| | Duct | Dilation | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| | | Nephropathy | Chronicprogr, Minimal |
| | Alveolus | Mixed Cell Focus | |
| | | Infiltration Cellular | Histiocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| | Duct | Dilation | Moderate |
| | | Hyperplasia | Mild |
| | | Degeneration | Moderate |
| | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| | | Foreign Body | |
| | | Inflammation | Suppurative, Minimal |
| | Respirat Epith | Metaplasia | Squamous, Minimal |
| | Olfactory Epi | Metaplasia | Respiratory, Mild |
| | | Atrophy | Marked |
| | | Fibrosis | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1928

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1928

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 6-4] | | | |
| * Salivary Glands | Sublingual GI | Metaplasia | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Marked |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Minimal |
| | | Polyp Stromal | |

Animal Note: TGL 3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1929

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1929

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Thyroid Gland
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea
- * Bone Marrow
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hypertrophy
- * Adrenal Medulla
 - Hyperplasia
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
- [Dilation TGLs = 2-16]
- * Harderian Gland
 - Atrophy
- * Heart
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- * Liver
 - Basophilic Focus
- * Lung
 - Bile Duct
 - Hyperplasia
 - Alveolus
 - Infiltration Cellular
- [Infiltration Cellular TGLs = 8-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - Hyperplasia
- Note: Fibroadenoma present in skin section taken from vulva.
- [Dilation TGLs = 3-9]
- * Nerve Trigeminal
 - Degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1929

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1929

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---|-------------------------------|--------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Marked |
| * Ovary | | Atrophy | Marked |
| | | Cyst | |
| | [Cyst TGLs = 6-16] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| * Skin | Vulva | Squamous Cell Carcinoma | |
| | [Squamous Cell Carcinoma TGLs = 1-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Stomach, Forestomach | | Squamous Cell Papilloma | |
| | [Squamous Cell Papilloma TGLs = 9-14] | | |
| * Thymus | | Hyperplasia | Epithelial, Marked |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Mild |
| | | Inflammation | Suppurative, Mild |
| | Epithelium | Metaplasia | Squamous, Moderate |
| | [Cyst TGLs = 5-16] | | |

Animal Note: TGLs 4,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1930

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1930

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Aorta | * Bone | * Brain | * Esophagus |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland | * Salivary Glands |
| Skeletal Muscle | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

INSUFFICIENT TISSUE

- * Adrenal Medulla

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|---|---|
| * Adrenal Cortex | | Degeneration Vacuolation, Cytoplasmic | Cystic, Mild Minimal |
| * Bone Marrow | | Hypercellularity | Minimal |
| * Clitoral Gland | Duct | Dilation Inflammation | Moderate Chronic Active, Mild |
| | [Dilation TGLs = 5-16] | | |
| * Eye | Retina | Atrophy | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Basophilic Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | [Infiltration Cellular TGLs = 8-10] | | |
| * Lymph Node, Mandibular | | Erythrophagocytosis Hyperplasia Proliferation | Minimal Lymphocyte, Minimal Plasma Cell, Mild |
| | [Erythrophagocytosis TGLs = 1-9.1] | | |
| * Mammary Gland | Duct | Dilation Fibroadenoma | Mild Multiple |
| | [Fibroadenoma TGLs = 2,3-20,21] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1930

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1930

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------|------------------------------|----------------------|
| * Ovary | | Inflammation | Suppurative, Minimal |
| * Peripheral Nerve, Sciatic | | Atrophy | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Degeneration | Mild |
| [Adenoma TGLs = 9-4] | | Adenoma | |
| * Skin | Subcut Tiss | Lipoma | |
| [Lipoma TGLs = 4-22] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| Tissue NOS | Abdominal, Fat | Necrosis | Mild |
| [Necrosis TGLs = 7-23] | | | |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Minimal |
| [Cyst TGLs = 6-16] | | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1931

TRT#: 8

SEX: Female

DAY ON TEST: 536

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1931

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Small, Duodenum
- * Mammary Gland
- * Peripheral Nerve, Tibial
- * Skin
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Eye
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Thymus
- * Bone
- * Harderian Gland
- * Liver
- * Pancreas
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Thyroid Gland
- * Brain
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Skeletal Muscle
- * Stomach, Forestomach
- * Trachea

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

INSUFFICIENT TISSUE

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Clitoral Gland
- * Heart
- * Kidney
- * Lung
- Alveolus
 - [Congestion TGLs = 6-10]
 - [Infiltration Cellular TGLs = 5-10]
- * Lymph Node, Mandibular
- * Nose
- Respirat Epith
- Olfactory Epi
- * Ovary
- Bursa
 - [Dilation TGLs = 3-16]
- * Peripheral Nerve, Sciatic
- Hyperplasia
- Hypercellularity
- Inflammation
- Cardiomyopathy
- Nephropathy
- Congestion
- Infiltration Cellular
- Proliferation
- Accumulation, Hyaline Droplet
- Accumulation, Hyaline Droplet
- Atrophy
- Dilation
- Degeneration
- Minimal
- Marked
- Chronic Active, Minimal
- Minimal
- Chronicprogr, Minimal
- Moderate
- Histiocyte, Moderate
- Plasma Cell, Mild
- Minimal
- Mild
- Moderate
- Mild
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1931

TRT#: 8

SEX: Female

DAY ON TEST: 536

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1931

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------|------------|------------------------------|------------------|
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Uterus | | Dilation | Marked |
| | | Hemorrhage | Marked |
| | Epithelium | Metaplasia | Squamous, Marked |

[Dilation TGLs = 2-16]

PRIMARY CAUSE OF DEATH - Uterus Hemorrhage

Animal Note: TGLs 4,7 = NCL (No Corresponding Lesion)

Animal Note: TGL 1 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1932

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1932

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------|-------------|---------------|---------------------|
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | | Polyp Stromal | Multiple |

[Polyp Stromal TGLs = 3-16]

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1933

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1933

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Skeletal Muscle
- * Stomach, Glandular
- * Bone Marrow
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skin
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Hypertrophy
 - Necrosis
 - Vacuolation, Cytoplasmic
 - Moderate
 - Minimal
 - Mild
- * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
- * Clitoral Gland
 - Duct
 - [Dilation TGLs = 2,3-16]
 - Dilation
 - Inflammation
 - Marked
 - Chronic Active, Minimal
- * Eye
 - Retina
 - Atrophy
 - Minimal
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 5-10]
 - Infiltration Cellular
 - Histiocyte, Mild
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Lymphocyte, Minimal
- * Mammary Gland
 - Fibroadenoma
 - Hyperplasia
 - Plasma Cell, Minimal
 - Minimal
- * Nerve Trigeminal
 - [Fibroadenoma TGLs = 1-20]
 - Degeneration
 - Minimal
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Mild
- * Ovary
 - [Cyst TGLs = 4-16]
 - Cyst

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1933

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1933

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|-----------------|
| * Parathyroid Gland | | Hyperplasia | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Adenoma | |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1934

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1934

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Aorta | * Bone | * Brain | * Esophagus |
| * Eye | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Kidney | * Liver | * Lymph Node, Mesenteric | * Nose |
| * Pancreas | * Parathyroid Gland | * Salivary Glands | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

| | | | |
|-----------------------------|---------------------------------------|-----------------------|-------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Adrenal Medulla | | Hyperplasia | Minimal |
| * Bone Marrow | | Hypercellularity | Minimal |
| * Clitoral Gland | Duct | Dilation | Moderate |
| | | Inflammation | Chronic Active, Mild |
| * Harderian Gland | | Hypertrophy | Mild |
| * Islets, Pancreatic | | Adenoma | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | | Inflammation | Chronic Active, Minimal |
| | [Infiltration Cellular TGLs = 5-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Minimal |
| | | Fibroadenoma | |
| | | Hyperplasia | Mild |
| | [Fibroadenoma TGLs = 1-20] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Ovary | | Atrophy | Marked |
| | | Cyst | |
| | [Cyst TGLs = 2-16] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1934

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1934

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|---------------|------------------------------|---------------------|
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | | Cyst | |
| | | Polyp Stromal | |

[Cyst TGLs = 3-16]

[Polyp Stromal TGLs = 4-16]

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1935

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1935

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Pars distalis available for evaluation.

[Adenoma TGLs = 9-4]

| | | | |
|-------------------------|--------------------------|------------------------------|---------------------|
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Carcinoma | |
| | [Carcinoma TGLs = 5-8] | | |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Cyst | |
| | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | [Cyst TGLs = 1-16] | | |

Animal Note: TGLs 4,7,8,10 = NCL (No Corresponding Lesion)

Animal Note: TGL 11,12 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1937

TRT#: 8

SEX: Female

DAY ON TEST: 305

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1937

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Pancreas
- * Salivary Glands
- * Spinal Cord, Lumbar
- * Thymus
- * Urinary Bladder
- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- Skeletal Muscle
- * Spinal Cord, Thoracic
- * Thyroid Gland
- * Uterus
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Nerve Trigeminal
- * Peripheral Nerve, Tibial
- * Skin
- * Stomach, Forestomach
- * Trachea
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Kidney
- * Ovary
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Stomach, Glandular
- Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Intestine Small, Ileum

OBSERVATIONS

- * Bone Marrow
 - * Clitoral Gland
 - * Liver
 - * Lung
 - * Mammary Gland
 - [Adenocarcinoma TGLs = 1,2-20]
 - * Nose
 - * Peripheral Nerve, Sciatic
 - * Spleen
 - [Extramedullary Hematopoiesis TGLs = 3-12]
- | | | |
|----------------|-------------------------------|---------------------|
| | Hypercellularity | Marked |
| Duct | Dilation | Moderate |
| | Extramedullary Hematopoiesis | Minimal |
| Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | Adenocarcinoma | |
| | Accumulation, Hyaline Droplet | Mild |
| Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| Respirat Epith | Degeneration | Minimal |
| | Extramedullary Hematopoiesis | Moderate |
| | Pigment | Minimal |

PRIMARY CAUSE OF DEATH - Mammary Gland Adenocarcinoma

Animal Note: TGL 4 = NCL (No Corresponding Lesion)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1938

TRT#: 8

SEX: Female

DAY ON TEST: 745

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1938

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea
- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Stomach, Glandular
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Pancreas
- * Skin
- * Thymus

MISSING

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
Degeneration
Hyperplasia
Cystic, Moderate
Minimal
- * Adren Medulla
Note: One of pair available for evaluation.
- * Bone Marrow
Hypercellularity
Marked
- * Clitoral Gland
Duct
Dilation
Minimal
- * Islets, Pancreatic
Hyperplasia
Minimal
- * Kidney
Nephropathy
Chronicprogr, Minimal
- * Liver
Extramedullary Hematopoiesis
Minimal
- * Lung
Alveolus
Infiltration Cellular TGLs = 7-10]
Infiltration Cellular TGLs = 7-10]
Histiocyte, Minimal
- * Lymph Node, Mandibular
Hyperplasia
Lymphocyte, Minimal
- * Mammary Gland
Adenoma
Duct
Dilation
Minimal
Fibroadenoma
[Adenoma TGLs = 1-20]
[Fibroadenoma TGLs = 2-21]
- * Nerve Trigeminal
Degeneration
Mild
- * Nose
Olfactory Epi
Accumulation, Hyaline Droplet
Moderate
- * Ovary
Atrophy
Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1938

TRT#: 8

SEX: Female

DAY ON TEST: 745

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1938

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--------------------------------|---------------|------------------------------|----------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| [Extramedullary Hematopoiesis | TGLs = 6-12] | | |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | | Adenocarcinoma | |
| | | Dilation | Marked |
| | Endometrium | Hyperplasia | Cystic, Mild |
| | | Inflammation | Suppurative, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |
| [Adenocarcinoma | TGLs = 5-22] | | |
| [Dilation | TGLs = 3-16] | | |
| [Inflammation | TGLs = 4-16] | | |

Animal Note: TGL 8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1939

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1939

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Pancreas | * Salivary Glands |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | Trigeminal Ganglion | * Urinary Bladder |
| * Uterus | | | |

MISSING

- * Parathyroid Gland

OBSERVATIONS

- | | | | |
|---|------------|--------------------------------------|---------------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Clitoral Gland | Duct | Dilation Inflammation | Minimal Chronic Active, Mild |
| [Dilation TGLs = 2-16] | | | |
| [Inflammation TGLs = 3-16] | | | |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Basophilic Focus Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| [Infiltration Cellular TGLs = 6-10] | | | |
| Lymph Node | Pancreatic | Infiltration Cellular | Histiocyte, Mild |
| [Infiltration Cellular TGLs = 5-6] | | | |
| * Mammary Gland | | Fibroadenoma Hyperplasia | Marked |
| [Fibroadenoma TGLs = 4-20] | | | |
| [Hyperplasia TGLs = 1-9,20] | | | |
| * Nerve Trigeminal | | Degeneration | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1939

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1939

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|-------------------------------|----------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | Rete Ovarii | Adenoma | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| Note: Longitudinal section available for evaluation. | | | |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1940

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1940

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Aorta
- * Bone
- * Bone Marrow
- * Brain
- * Clitoral Gland
- * Esophagus
- * Eye
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Salivary Glands
- * Skeletal Muscle
- * Skin
- * Stomach, Forestomach
- * Stomach, Glandular
- * Trachea
- * Urinary Bladder

MISSING

Trigeminal Ganglion

OBSERVATIONS

- * Harderian Gland Atrophy Minimal
- * Heart Cardiomyopathy Minimal
- * Kidney Nephropathy Chronicprogr, Minimal
- * Liver Mixed Cell Focus
- Note: Intestinal metaplasia of extrahepatic bile ducts within region of fibrosis adjacent to duodenum/pancreas.
- * Lung Alveolus Infiltration Cellular Histiocyte, Minimal
 - [Infiltration Cellular TGLs = 2-10]
- Lymph Node Mediastinal Erythrophagocytosis Mild
 - [Erythrophagocytosis TGLs = 3-21]
- * Lymph Node, Mandibular Hyperplasia Lymphocyte, Minimal
- * Mammary Gland Duct Proliferation Plasma Cell, Minimal
- Dilation Minimal
- [Fibroadenoma TGLs = 1-20] Fibroadenoma
- * Nerve Trigeminal Degeneration Mild
- * Nose Olfactory Epi Accumulation, Hyaline Droplet Moderate
- Respirat Epith Accumulation, Hyaline Droplet Minimal
- * Ovary Atrophy Marked
- * Pancreas Periductal Cholangiofibrosis Mild
- Acinus Hyperplasia Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1940

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1940

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|----------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Moderate |
| * Thymus | | Cyst | |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| * Uterus | Epithelium | Metaplasia | Squamous, Mild |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1942

TRT#: 8

SEX: Female

DAY ON TEST: 678

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1942

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Esophagus |
| * Eye | * Harderian Gland | * Heart | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic |
| * Kidney | * Liver | * Lymph Node, Mesenteric | * Pancreas |
| * Parathyroid Gland | * Salivary Glands | Skeletal Muscle | * Skin |
| * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

AUTO PRECLUDES DIAG.

- | | |
|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Jejunum |
|--------------------------|----------------------------|

OBSERVATIONS

- | | | | |
|---|---------------|-------------------------------|-------------------|
| * Adrenal Cortex | | Hypertrophy | Mild |
| * Bone Marrow | | Hypercellularity | Marked |
| * Brain | | Compression | Mild |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| [Compression TGLs = 6-2] | | | |
| * Clitoral Gland | | Inflammation | Chronic, Minimal |
| * Lung | | Congestion | Minimal |
| | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| [Congestion TGLs = 3-10] | | | |
| [Infiltration Cellular TGLs = 2-10] | | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Mild |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Mild |
| | | Hyperplasia | Minimal |
| * Nerve Trigeminal | | Degeneration | Mild |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | Rete Ovarii | Hyperplasia | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1942

TRT#: 8

SEX: Female

DAY ON TEST: 678

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1942

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLs = 5-4]

* Spinal Cord, Lumbar

Nerve

Degeneration

Mild

* Spleen

Extramedullary Hematopoiesis

Moderate

Pigment

Minimal

* Thymus

Atrophy

Marked

Cyst

* Uterus

Dilation

Marked

Inflammation

Suppurative, Marked

Epithelium

Metaplasia

Squamous, Marked

Note: Uterine lumen filled with keratin, proteinaceous fluid, bacterial colonies, red blood cells and neutrophils.

[Dilation TGLs = 1-16]

PRIMARY CAUSE OF DEATH

- Uterus Inflammation

Animal Note: TGLs 4,7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1943

TRT#: 8

SEX: Female

DAY ON TEST: 745

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1943

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Nerve Trigeminal | * Pancreas | * Parathyroid Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | * Urinary Bladder | | |

OBSERVATIONS

- | | | | |
|---|---------------------------------------|--|---------------------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Brain | | | |
| Note: Olfactory bulbs unavailable for evaluation. | | | |
| * Clitoral Gland | Duct | Dilation Inflammation | Mild Chronic Active, Minimal |
| | [Dilation TGLs = 1-16] | | |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Clear Cell Focus Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Marked |
| | [Infiltration Cellular TGLs = 8-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia Proliferation | Lymphocyte, Mild Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation Fibroadenoma Galactocele Hyperplasia | Minimal |
| | [Fibroadenoma TGLs = 4-21] | | |
| | [Galactocele TGLs = 2,3-9,20] | | |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1943

TRT#: 8

SEX: Female

DAY ON TEST: 745

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1943

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|----------------------|
| | | Cyst | |
| [Cyst TGLs = 5-16] | | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 9-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Cyst | |
| | | Hyperplasia | Epithelial, Moderate |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Epithelium | Metaplasia | Squamous, Marked |

Animal Note: TGLs 6,7,10 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1944

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1944

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Clitoral Gland
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Bone
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- * Bone Marrow
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Stomach, Glandular
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hypertrophy
 - Vacuolation, Cytoplasmic
 - Cystic, Mild
 - Mild
 - Mild
- [Vacuolation, Cytoplasmic TGLs = 3-7]
- * Adrenal Medulla
 - Pheochromocytoma Benign
- * Harderian Gland
 - Atrophy
 - Inflammation
 - Granulomatous, Minimal
- * Heart
 - Cardiomyopathy
 - Minimal
 - Endocardium
 - Schwann Cell, Minimal
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Bile Duct
 - Cyst
- [Cyst TGLs = 7-21]
- * Lung
 - Alveolus
 - Infiltration Cellular
 - Histiocyte, Mild
- [Infiltration Cellular TGLs = 5-10]
- Lymph Node
 - Mediastinal
 - Erythrophagocytosis
 - Mild
- [Erythrophagocytosis TGLs = 4-20]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Lymphocyte, Mild
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
 - Mild
- [Fibroadenoma TGLs = 1-20]
- * Nerve Trigeminal
 - Degeneration
 - Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1944

TRT#: 8

SEX: Female

DAY ON TEST: 744

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1944

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------------------|-------------------------------|---------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Marked |
| | | Cyst | |
| | [Cyst TGLs = 2-16] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Marked |
| * Peripheral Nerve, Tibial | | Degeneration | Moderate |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| | [Hyperplasia TGLs = 6-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Epithelium | Metaplasia | Squamous, Moderate |

Animal Note: TGL 8 = NCL (No Corresponding Lesion)

Animal Note: TGL 9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1945

TRT#: 8

SEX: Female

DAY ON TEST: 492

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1945

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Harderian Gland | * Heart |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| Skeletal Muscle | * Spinal Cord, Cervical | * Spinal Cord, Thoracic | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

MISSING

- * Clitoral Gland

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------------|-------------------------|
| * Adrenal Cortex | | Vacuolation, Cytoplasmic | Minimal |
| * Bone Marrow | | Hypercellularity | Moderate |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 3-10] | | |
| * Lymph Node, Mandibular | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Mild |
| | | Fibroadenoma | |
| | | Hyperplasia | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | [Fibroadenoma TGLs = 1-20] | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| | Respirat Epith | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Moderate |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Skin | | Inflammation | Chronic Active, Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1945

TRT#: 8

SEX: Female

DAY ON TEST: 492

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1945

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------|-------------|------------------------------|---------------------|
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Moderate |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1946

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1946

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|---------------|------------------------------|---------------------|
| * Parathyroid Gland | | Hypertrophy | Focal, Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Moderate |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | Epithelium | Metaplasia | Squamous, Marked |

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1947

TRT#: 8

SEX: Female

DAY ON TEST: 668

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1947

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Longitudinal section available for evaluation.

| | | | |
|----------------------------|---|-------------------------|------------------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Salivary Glands | Parotid GI | Squamous Cell Carcinoma | |
| * Skin | | Squamous Cell Carcinoma | Metastatic (Salivary Glands) |
| | [Squamous Cell Carcinoma TGLs = 2-20] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Minimal |
| | | Pigment | Minimal |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Trigeminal Ganglion | | Squamous Cell Carcinoma | Metastatic (Salivary Glands) |

PRIMARY CAUSE OF DEATH - Salivary Glands Parotid GI Squamous Cell Carcinoma

Animal Note: TGLs 1,8 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1948

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-9224-1948

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea
- * Bone
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Skin
- Trigeminal Ganglion
- * Bone Marrow
- * Harderian Gland
- * Intestine Large, Rectum
- * Liver
- * Pituitary Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Hypertrophy
- * Adrenal Medulla
 - Hyperplasia
- * Clitoral Gland
 - Duct
 - Dilation
- * Islets, Pancreatic
 - Hyperplasia
- * Kidney
 - Nephropathy
- * Lung
 - Alveolus
 - Infiltration Cellular
- [Infiltration Cellular TGLs = 3-10]
- * Mammary Gland
 - Duct
 - Dilation
 - Fibroadenoma
- [Fibroadenoma TGLs = 1-20]
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Ovary
 - Atrophy
- * Parathyroid Gland
 - Fibrosis
- * Peripheral Nerve, Sciatic
 - Degeneration
- * Peripheral Nerve, Tibial
 - Degeneration
- * Spinal Cord, Cervical
 - Degeneration
- * Spinal Cord, Lumbar
 - Nerve
 - Degeneration
- * Spinal Cord, Thoracic
 - Degeneration
- * Spleen
 - Extramedullary Hematopoiesis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1948

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-9224-1948

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------|-------------|-------------|---------------------|
| * Thymus | | Pigment | Minimal |
| | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1949

TRT#: 8

SEX: Female

DAY ON TEST: 663

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1949

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Islets, Pancreatic
- * Salivary Glands
- * Spinal Cord, Thoracic
- Trigeminal Ganglion
- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Forestomach
- * Urinary Bladder
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Pancreas
- * Spinal Cord, Cervical
- * Stomach, Glandular
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Parathyroid Gland
- * Spinal Cord, Lumbar
- * Trachea

AUTO PRECLUDES DIAG.

- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum

OBSERVATIONS

- * Bone Marrow
 - * Brain
 - Note: Olfactory bulbs unavailable for evaluation.
 - * Clitoral Gland
 - * Kidney
 - * Liver
 - * Lung
 - [Infiltration Cellular TGLs = 1-10]
 - * Lymph Node, Mandibular
 - * Mammary Gland
 - [Dilation TGLs = 5-9]
 - * Nerve Trigeminal
 - * Nose
 - * Ovary
 - * Peripheral Nerve, Sciatic
 - * Peripheral Nerve, Tibial
 - * Pituitary Gland
- | | | |
|--|-------------------------------|-----------------------|
| | Hypercellularity | Minimal |
| | Dilation | Mild |
| | Nephropathy | Chronicprogr, Minimal |
| | Extramedullary Hematopoiesis | Minimal |
| | Hyperplasia | Minimal |
| | Infiltration Cellular | Histiocyte, Mild |
| | Hyperplasia | Lymphocyte, Mild |
| | Dilation | Moderate |
| | Hyperplasia | Minimal |
| | Degeneration | Minimal |
| | Accumulation, Hyaline Droplet | Mild |
| | Atrophy | Mild |
| | Cyst | |
| | Degeneration | Minimal |
| | Degeneration | Minimal |
| | Hyperplasia | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1949

TRT#: 8

SEX: Female

DAY ON TEST: 663

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1949

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|-------------|------------------------------|-------------------|
| * Skin | Subcut Tiss | Fibroma | |
| [Fibroma TGLs = 4-20] | | | |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Hyperplasia | Moderate |
| * Uterus | Epithelium | Metaplasia | Squamous, Minimal |

PRIMARY CAUSE OF DEATH - Skin Subcut Tiss Fibroma

Animal Note: TGLs 2,3 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1951

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1951

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Trachea
- * Aorta
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- Trigeminal Ganglion
- * Bone
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone Marrow
- * Harderian Gland
- * Intestine Large, Rectum
- * Lymph Node, Mandibular
- * Salivary Glands
- * Stomach, Glandular

OBSERVATIONS

- * Adrenal Cortex
- * Clitoral Gland
- [Dilation TGLs = 5-16.1]
- [Hyperplasia TGLs = 1-16.1]
- * Islets, Pancreatic
- * Kidney
- * Liver
- [Angiectasis TGLs = 6-20]
- * Lung
- [Infiltration Cellular TGLs = 3-10,20]
- * Mammary Gland
- * Nerve Trigeminal
- * Nose
- * Ovary
- * Peripheral Nerve, Sciatic
- Duct
- Duct
- Epithlm Alvlus
- Alveolus
- Duct
- Olfactory Epi
- Hypertrophy
- Dilation
- Hyperplasia
- Inflammation
- Hyperplasia
- Nephropathy
- Angiectasis
- Mixed Cell Focus
- Hyperplasia
- Infiltration Cellular
- Inflammation
- Dilation
- Hyperplasia
- Degeneration
- Accumulation, Hyaline Droplet
- Atrophy
- Degeneration
- Minimal
- Marked
- Moderate
- Chronic Active, Mild
- Mild
- Chronicprogr, Minimal
- Minimal
- Minimal
- Histiocyte, Minimal
- Chronic Active, Minimal
- Minimal
- Minimal
- Moderate
- Moderate
- Marked
- Mild

Note: Longitudinal section available for evaluation.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1951

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1951

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---------------|------------------------------|-------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Intermed | Cyst | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |

Animal Note: TGLs 2,4 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1952

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1952

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Hyperplasia | Marked |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| Tissue NOS | Mediastinum | Cyst | |
| Note: Large cysts adjacent to thymus. | | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | | Inflammation | Suppurative, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |

[Hyperplasia TGLs = 5-21]

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1953

TRT#: 8

SEX: Female

DAY ON TEST: 695

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1953

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|--------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Brain |
| * Esophagus | * Eye | * Heart | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic |
| * Kidney | * Lymph Node, Mesenteric | * Pancreas | * Pituitary Gland |
| * Salivary Glands | Skeletal Muscle | * Skin | * Spinal Cord, Cervical |
| * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

MISSING

- * Parathyroid Gland

AUTO PRECLUDES DIAG.

- | | |
|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Jejunum |
|--------------------------|----------------------------|

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|-------------------------------|-------------------|
| * Adrenal Cortex | | Degeneration | Cystic, Minimal |
| * Bone Marrow | | Hypercellularity | Marked |
| * Clitoral Gland | Duct | Dilation | Moderate |
| * Harderian Gland | | Atrophy | Minimal |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| | Hepatocyte | Necrosis | Mild |
| | [Necrosis TGLs = 2-12] | | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 3-10] | | |
| * Lymph Node, Mandibular | | Erythrophagocytosis | Moderate |
| | | Proliferation | Plasma Cell, Mild |
| * Mammary Gland | Duct | Dilation | Minimal |
| | [Fibroadenoma TGLs = 1-20] | Fibroadenoma | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| | | Foreign Body | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1953

TRT#: 8

SEX: Female

DAY ON TEST: 695

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1953

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------|------------------------------|----------------------|
| | Respirat Epith | Hyperplasia | Mild |
| | | Inflammation | Suppurative, Minimal |
| | Olfactory Epi | Metaplasia | Respiratory, Mild |
| * Ovary | | Atrophy | Mild |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| * Uterus | | Dilation | Marked |
| | | Hemorrhage | Marked |

[Dilation TGLs = 4-16]

[Hemorrhage TGLs = 7-16]

PRIMARY CAUSE OF DEATH - Uterus Hemorrhage

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1954

TRT#: 8

SEX: Female

DAY ON TEST: 669

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1954

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Salivary Glands
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Stomach, Glandular
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Pancreas
- * Skin
- * Trachea
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Adrenal Medulla
- * Bone Marrow
- * Clitoral Gland
- [Dilation TGLs = 4-16]
- [Inflammation TGLs = 3-16]
- * Islets, Pancreatic
- * Kidney
- * Liver
- * Lung
- [Infiltration Cellular TGLs = 6-10]
- * Lymph Node, Mandibular
- * Mammary Gland
- [Fibroadenoma TGLs = 1,2-20,21]
- * Nerve Trigeminal
- * Nose
- * Ovary
- * Peripheral Nerve, Sciatic
- Duct
- Alveolus
- Duct
- Olfactory Epi
- Degeneration
- Hyperplasia
- Hypercellularity
- Dilation
- Inflammation
- Hyperplasia
- Nephropathy
- Extramedullary Hematopoiesis
- Infiltration Cellular
- Hyperplasia
- Proliferation
- Dilation
- Fibroadenoma
- Hyperplasia
- Degeneration
- Accumulation, Hyaline Droplet
- Atrophy
- Degeneration
- Cystic, Minimal
- Mild
- Marked
- Marked
- Chronic Active, Marked
- Marked
- Chronicprogr, Minimal
- Minimal
- Histiocyte, Minimal
- Lymphocyte, Mild
- Plasma Cell, Mild
- Minimal
- Multiple
- Mild
- Mild
- Minimal
- Moderate
- Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1954

TRT#: 8

SEX: Female

DAY ON TEST: 669

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1954

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------------------------|---------------|------------------------------|---------------------|
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 5-4] | | | |
| * Spinal Cord, Lumbar | | Degeneration | Minimal |
| | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Moderate |
| | | Pigment | Minimal |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Adenoma | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1955

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1955

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- Trigeminal Ganglion
- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- * Uterus
- * Bone Marrow
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mandibular
- Skeletal Muscle
- * Trachea

OBSERVATIONS

- * Adrenal Cortex
 - Accessory Adrenal Cortical Nodule
 - Degeneration
 - Hypertrophy
 - [Degeneration TGLs = 8-7]
 - [Hypertrophy TGLs = 9-7]
- * Clitoral Gland
 - Duct
 - Dilation
 - [Dilation TGLs = 2,3-16]
- * Eye
 - Atrophy
- * Kidney
 - Nephropathy
 - Hepatocellular Adenoma
- * Liver
 - Kupffer Cell
 - Hepatocyte
 - Vacuolation, Cytoplasmic
- * Lung
 - Alveolus
 - Infiltration Cellular TGLs = 13-20]
- * Lymph Node, Mesenteric
 - Lymph Sinus
 - Ectasia
- * Mammary Gland
 - Duct
 - Dilation
 - Hyperplasia
 - [Hyperplasia TGLs = 1-9]
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Ovary
 - Atrophy
- * Parathyroid Gland
 - Fibrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1955

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1955

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|--------|------------------------------|----------|
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Mild |
| * Thyroid Gland | C Cell | Adenoma | |
| [Adenoma TGLs = 11,12-8] | | | |

Animal Note: TGLs 4,6,10,14 = NCL (No Corresponding Lesion)

Animal Note: TGL 5 = NCL (No Corresponding Lesion)

Animal Note: TGL 7 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1956

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1956

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Thyroid Gland
- * Uterus
- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Ovary
- * Skin
- * Trachea

MISSING

- * Parathyroid Gland

OBSERVATIONS

- * Adren Medulla

Note: One of pair available for evaluation.

- * Bone Marrow

- * Clitoral Gland

Duct

[Dilation TGLs = 3,4-16]

- * Harderian Gland

- * Heart

- * Kidney

- * Liver

[Mixed Cell Focus TGLs = 10-12]

- * Lung

Alveolus

[Infiltration Cellular TGLs = 7-10]

Lymph Node

Iliac, Lymph Sinus

Iliac

[Ectasia TGLs = 5-20]

Hypercellularity

Dilation

Inflammation

Atrophy

Inflammation

Cardiomyopathy

Nephropathy

Eosinophilic Focus

Extramedullary Hematopoiesis

Mixed Cell Focus

Infiltration Cellular

Inflammation

Ectasia

Erythrophagocytosis

Minimal

Marked

Chronic Active, Mild

Minimal

Granulomatous, Minimal

Mild

Chronicprogr, Minimal

Minimal

Histiocyte, Minimal

Chronic Active, Minimal

Moderate

Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1956

TRT#: 8

SEX: Female

DAY ON TEST: 741

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1956

ORGAN AND ACCOUNTABLE SITE STATUS

[Erythrophagocytosis TGLs = 6-20]

* Lymph Node, Mandibular

Hyperplasia

Lymphocyte, Minimal

Proliferation

Plasma Cell, Mild

* Mammary Gland

Fibroadenoma

Hyperplasia

Mild

[Fibroadenoma TGLs = 1-21]

* Nerve Trigeminal

Degeneration

Mild

* Nose

Olfactory Epi

Accumulation, Hyaline Droplet

Moderate

* Peripheral Nerve, Sciatic

Degeneration

Minimal

* Peripheral Nerve, Tibial

Degeneration

Minimal

* Pituitary Gland

Note: Pars distalis available for evaluation.

* Salivary Glands

Parotid GI

Fibrosis

Minimal

Parotid GI

Mineral

Minimal

* Spinal Cord, Cervical

Degeneration

Minimal

* Spinal Cord, Lumbar

Nerve

Degeneration

Minimal

* Spinal Cord, Thoracic

Degeneration

Mild

* Spleen

Extramedullary Hematopoiesis

Moderate

* Thymus

Atrophy

Mild

Cyst

Animal Note: TGL 2 = NST (No Section Taken)

Animal Note: TGL 8 = NCL (No Corresponding Lesion)

Animal Note: TGL 9 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1958

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1958

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Trachea
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion
- * Bone
- * Harderian Gland
- * Intestine Small, Duodenum
- * Pancreas
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Parathyroid Gland
- * Skin
- * Thyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hyperplasia
 - Hypertrophy
 Cystic, Minimal
Marked
Mild
- * Adren Medulla
 - Note: One of pair available for evaluation.
- * Bone Marrow
 - Hypercellularity
 Marked
- * Clitoral Gland
 - Duct
 - [Dilation TGLs = 4,5-16]
 Dilation
Marked
- Ear
 - [Neural Crest Tumor TGLs = 2-20]
 Neural Crest Tumor
- * Heart
 - Cardiomyopathy
 Minimal
- * Kidney
 - Nephropathy
 Chronicprogr, Minimal
- * Liver
 - Basophilic Focus
 - Mixed Cell Focus
 - Infiltration Cellular
- * Lung
 - Alveolus
 - [Infiltration Cellular TGLs = 11-10]
 Infiltration Cellular
Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Hyperplasia
 Lymphocyte, Minimal
- * Lymph Node, Mesenteric
 - Infiltration Cellular
 Histiocyte, Minimal
- * Mammary Gland
 - Duct
 - [Dilation TGLs = 3-9]
 Dilation
Fibroadenoma
Hyperplasia
Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1958

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1958

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroadenoma TGLs = 1-21]

| | | | |
|--------------------|---------------|-------------------------------|----------|
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Marked |
| | | Cyst | |

[Cyst TGLs = 9-16]

| | | | |
|-----------------------------|-------------|------------------------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Uterus | | Dilation | Mild |
| | Endometrium | Hyperplasia | Cystic, Mild |
| | | Inflammation | Suppurative, Mild |
| | Epithelium | Metaplasia | Squamous, Minimal |
| | | Polyp Stromal | Multiple |

[Dilation TGLs = 6-20]

[Inflammation TGLs = 7-20]

[Polyp Stromal TGLs = 8-16]

Animal Note: TGL 10 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1959

TRT#: 8

SEX: Female

DAY ON TEST: 711

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1959

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Trachea
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Glandular
- * Uterus
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Thyroid Gland

INSUFFICIENT TISSUE

- * Peripheral Nerve, Tibial

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Vacuolation, Cytoplasmic
- * Adrenal Medulla
 - Hyperplasia
- * Bone Marrow
 - Hypercellularity
- * Heart
 - Cardiomyopathy
- * Kidney
 - Nephropathy
- * Liver
 - Extramedullary Hematopoiesis
 - Hepatodiaphragmatic Nodule
 - Mixed Cell Focus
- * Lung
 - [Hepatodiaphragmatic Nodule TGLs = 5-12]
 - Alveolus
 - Infiltration Cellular
 - Inflammation
 - [Infiltration Cellular TGLs = 2-10]
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
- * Mammary Gland
 - Fibroadenoma
 - Hyperplasia
- * Nerve Trigeminal
 - [Fibroadenoma TGLs = 1,7-20,21]
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet

- Mild
- Minimal
- Minimal
- Marked
- Minimal
- Chronicprogr, Minimal
- Minimal
- Histiocyte, Moderate
- Chronic Active, Minimal
- Lymphocyte, Minimal
- Plasma Cell, Mild
- Multiple
- Moderate
- Mild
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1959

TRT#: 8

SEX: Female

DAY ON TEST: 711

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1959

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|-----------|------------------------------|---------------------|
| * Ovary | | Atrophy | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| Skeletal Muscle | Diaphragm | Hernia | Moderate |
| [Hernia TGLs = 6-12] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Marked |
| [Extramedullary Hematopoiesis TGLs = 3-12] | | | |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGLs 4,8 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1960

TRT#: 8

SEX: Female

DAY ON TEST: 702

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1960

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Aorta | * Bone |
| * Clitoral Gland | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Mesenteric | * Parathyroid Gland | * Salivary Glands | Skeletal Muscle |
| * Skin | * Spinal Cord, Thoracic | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------------|-----------------------|
| * Bone Marrow | | Hypercellularity | Marked |
| * Brain | | Compression | Minimal |
| | [Compression TGLs = 7-2] | | |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Extramedullary Hematopoiesis | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Moderate |
| | | Inflammation | Chronic Active, Mild |
| | [Infiltration Cellular TGLs = 5-10] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Moderate |
| | | Proliferation | Plasma Cell, Moderate |
| * Mammary Gland | Duct | Dilation | Moderate |
| | | Fibroadenoma | Multiple |
| | [Fibroadenoma TGLs = 3-20] | Hyperplasia | Minimal |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Mild |
| | | Cyst | |
| | [Cyst TGLs = 1,2-16] | | |
| * Pancreas | Acinus | Atrophy | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1960

TRT#: 8

SEX: Female

DAY ON TEST: 702

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1960

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------------|---------------|------------------------------|----------------------|
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 6-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Moderate |
| | | Hyperplasia | Epithelial, Moderate |
| [Atrophy TGLs = 4-6] | | | |
| * Thyroid Gland | C Cell | Adenoma | |
| * Uterus | Epithelium | Metaplasia | Squamous, Mild |
| | | Polyp Stromal | |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 8 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1961

TRT#: 8

SEX: Female

DAY ON TEST: 720

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1961

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Eye
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Stomach, Forestomach
- * Urinary Bladder
- * Bone
- * Harderian Gland
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Glandular
- * Bone Marrow
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Skeletal Muscle
- * Thyroid Gland
- * Esophagus
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Trachea

MISSING

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - Hyperplasia
 - Vacuolation, Cytoplasmic
- * Adrenal Medulla
 - Hypertrophy
- * Brain
 - [Compression TGLs = 10-2]
 - Compression
- * Clitoral Gland
 - Duct
 - Dilation
 - Inflammation
 - [Dilation TGLs = 9-16.1]
- * Kidney
 - Nephropathy
- * Liver
 - Bile Duct
 - Cyst
- * Lung
 - Alveolus
 - Infiltration Cellular
 - [Infiltration Cellular TGLs = 4-10]
- * Lymph Node, Mandibular
 - Proliferation
- * Mammary Gland
 - Duct
 - Fibroadenoma
 - [Fibroadenoma TGLs = 1,2-20,21]
- * Nerve Trigeminal
 - Degeneration
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
- * Ovary
 - Rete Ovarii
 - Atrophy
 - Hyperplasia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1961

TRT#: 8

SEX: Female

DAY ON TEST: 720

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1961

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------|----------------|--------------|---------------------|
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 5-4] | | | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | Red Pulp | Atrophy | Moderate |
| | | Pigment | Moderate |
| [Atrophy TGLs = 7-12] | | | |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| Tissue NOS | Abdominal, Fat | Necrosis | Mild |
| [Necrosis TGLs = 3-22] | | | |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

Animal Note: TGLs 6,11 = NCL (No Corresponding Lesion)

Animal Note: TGL 8 = NST (No Section Taken)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1962

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1962

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- * Skin
- * Trachea
- * Bone
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Salivary Glands
- * Stomach, Forestomach
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- Skeletal Muscle
- * Stomach, Glandular

MISSING

Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
 - * Adrenal Medulla
 - * Bone Marrow
 - * Brain
 - [Compression TGLs = 7-2]
 - * Clitoral Gland
 - * Harderian Gland
 - * Heart
 - * Kidney
 - * Liver
 - Bile Duct
 - [Cyst TGLs = 3-22]
 - * Lung
 - [Infiltration Cellular TGLs = 5-10]
 - Lymph Node
 - [Erythrophagocytosis TGLs = 4-6]
 - * Lymph Node, Mandibular
 - * Mammary Gland
 - Duct
- Accessory Adrenal Cortical Nodule
Hyperplasia
Hypercellularity
Compression
Inflammation
Atrophy
Cardiomyopathy
Nephropathy
Basophilic Focus
Cyst
Eosinophilic Focus
Infiltration Cellular
Erythrophagocytosis
Hyperplasia
Proliferation
Dilation
Fibroadenoma
- Minimal
Moderate
Minimal
Chronic Active, Minimal
Minimal
Minimal
Chronicprogr, Minimal
Minimal
Histiocyte, Minimal
Minimal
Lymphocyte, Minimal
Plasma Cell, Mild
Mild
Multiple

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1962

TRT#: 8

SEX: Female

DAY ON TEST: 740

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1962

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroadenoma TGLs = 1,2-20,21,23RT]

| | | | |
|-----------------------------|------------------------|-------------------------------|-------------------|
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Moderate |
| * Ovary | | Atrophy | Marked |
| * Peripheral Nerve, Sciatic | | Degeneration | Moderate |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | [Adenoma TGLs = 6-4] | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Hemorrhage | Minimal |
| | | Pigment | Mild |
| * Thymus | | Cyst | |
| * Thyroid Gland | C Cell | Hyperplasia | Marked |
| * Uterus | Endometrium | Hyperplasia | Cystic, Minimal |
| | Epithelium | Metaplasia | Squamous, Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1963

TRT#: 8

SEX: Female

DAY ON TEST: 694

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1963

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Small, Ileum
- * Skin
- * Aorta
- * Intestine Large, Cecum
- * Intestine Small, Jejunum
- * Thyroid Gland
- * Bone
- * Intestine Large, Rectum
- * Parathyroid Gland
- * Trachea
- * Brain
- * Intestine Small, Duodenum
- Skeletal Muscle
- Trigeminal Ganglion

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Clitoral Gland
- [Dilation TGLs = 12-16]
- * Eye
- * Harderian Gland
- * Heart
- * Intestine Large, Colon
- * Islets, Pancreatic
- * Kidney
- * Liver
- [Lymphoma Malignant TGLs = 8-12]
- * Lung
- [Lymphoma Malignant TGLs = 5-10]
- Lymph Node
- [Lymphoma Malignant TGLs = 4-21]
- [Lymphoma Malignant TGLs = 15-23]
- Lymphoma Malignant
- Hypercellularity
- Duct
- Dilation
- Lymphoma Malignant
- Antr Chamber
- Cornea
- Cornea
- Cornea
- Inflammation
- Inflammation
- Lymphoma Malignant
- Ulcer
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Hepatocyte
- Vacuolation, Cytoplasmic
- Lymphoma Malignant
- Mediastinal
- Lumbar
- Renal
- Iliac
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Lymphoma Malignant
- Marked
- Marked
- Acute, Minimal
- Acute, Mild
- Mild
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1963

TRT#: 8

SEX: Female

DAY ON TEST: 694

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1963

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---|---------------------|-------------------------------|----------|
| [Lymphoma Malignant | TGLs = 16-24] | | |
| [Lymphoma Malignant | TGLs = 17-25] | | |
| * Lymph Node, Mandibular | | Lymphoma Malignant | |
| [Lymphoma Malignant | TGLs = 3-9] | | |
| * Lymph Node, Mesenteric | | Lymphoma Malignant | |
| [Lymphoma Malignant | TGLs = 7-15] | | |
| * Mammary Gland | | Fibroadenoma | |
| | | Lymphoma Malignant | |
| Note: Fibroadenoma infiltrated by malignant lymphoma. | | | |
| [Fibroadenoma | TGLs = 14-20] | | |
| * Nerve Trigeminal | | Degeneration | Moderate |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| | | Lymphoma Malignant | |
| * Ovary | | Lymphoma Malignant | |
| * Pancreas | | Lymphoma Malignant | |
| [Lymphoma Malignant | TGLs = 1,2-6,22] | | |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| | Pars Distalis | Hyperplasia | Moderate |
| [Adenoma | TGLs = 13-4] | | |
| * Salivary Glands | | Lymphoma Malignant | |
| * Spinal Cord, Cervical | | Degeneration | Minimal |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Minimal |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Lymphoma Malignant | |
| [Lymphoma Malignant | TGLs = 9,10,11-12] | | |
| * Stomach, Forestomach | Epithelium | Hyperplasia | Moderate |
| | | Lymphoma Malignant | |
| | | Ulcer | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1963

TRT#: 8

SEX: Female

DAY ON TEST: 694

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1963

ORGAN AND ACCOUNTABLE SITE STATUS

* Stomach, Glandular

Lymphoma Malignant

* Thymus

Lymphoma Malignant

* Urinary Bladder

Lymphoma Malignant

* Uterus

Inflammation

Suppurative, Mild

Lymphoma Malignant

PRIMARY CAUSE OF DEATH - Spleen Lymphoma Malignant

Animal Note: TGL 6 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1964

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1964

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Aorta
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Pancreas
- Skeletal Muscle
- * Stomach, Glandular
- * Bone
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Skin
- * Trachea
- * Bone Marrow
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Spinal Cord, Cervical
- * Urinary Bladder
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach

OBSERVATIONS

- * Adrenal Cortex
 - Degeneration
 - Hypertrophy
 - Hyperplasia
 - Cystic, Minimal
- * Adrenal Medulla
 - Hyperplasia
 - Mild
- * Heart
 - Cardiomyopathy
 - Minimal
- * Kidney
 - Nephropathy
 - Chronicprogr, Minimal
- * Liver
 - Mixed Cell Focus
- * Lung
 - Alveolus
 - Infiltration Cellular
 - TGLs = 2-10
 - Histiocyte, Minimal
- * Lymph Node, Mandibular
 - Hyperplasia
 - Proliferation
 - Lymphocyte, Minimal
 - Plasma Cell, Minimal
- * Mammary Gland
 - Duct
 - Dilation
 - Minimal
- * Nerve Trigeminal
 - Degeneration
 - Minimal
- * Nose
 - Olfactory Epi
 - Accumulation, Hyaline Droplet
 - Moderate
- * Ovary
 - Atrophy
 - Cyst
 - Marked
- [Cyst TGLs = 1-16]
- * Peripheral Nerve, Sciatic
 - Degeneration
 - Mild
- * Peripheral Nerve, Tibial
 - Degeneration
 - Mild
- * Pituitary Gl
 - Note: Pars distalis available for evaluation.
- * Spinal Cord, Lumbar
 - Nerve
 - Degeneration
 - Mild
- * Spinal Cord, Thoracic
 - Degeneration
 - Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1964

TRT#: 8

SEX: Female

DAY ON TEST: 738

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1964

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------|------------|------------------------------|---------------------|
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Minimal |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Minimal |
| Trigeminal Ganglion | | Degeneration | Minimal |
| * Uterus | | Cyst | |
| | Epithelium | Metaplasia | Squamous, Minimal |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1965

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1965

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Bone Marrow |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lymph Node, Mesenteric |
| * Pancreas | * Parathyroid Gland | * Salivary Glands | Skeletal Muscle |
| * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach | * Stomach, Glandular |
| * Trachea | Trigeminal Ganglion | * Urinary Bladder | |

MISSING

- * Nerve Trigeminal

OBSERVATIONS

- | | | | |
|--------------------------|--|-------------------------------|-----------------------|
| * Adrenal Cortex | | Degeneration | Cystic, Minimal |
| | | Hyperplasia | Mild |
| * Heart | Endocardium | Schwannoma Malignant | |
| * Islets, Pancreatic | | Hyperplasia | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Liver | | Eosinophilic Focus | |
| | | Mixed Cell Focus | |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Moderate |
| | [Infiltration Cellular TGLs = 7-10] | | |
| | Lymph Node | | |
| | Axillary | Erythrophagocytosis | Moderate |
| | [Erythrophagocytosis TGLs = 4,5-20] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| | | Proliferation | Plasma Cell, Minimal |
| * Mammary Gland | Duct | Dilation | Mild |
| | [Fibroadenoma TGLs = 1,2,3,6,9-21,22,23,24,25] | Fibroadenoma | Multiple |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Marked |
| | | Fibrosis | Marked |
| | | Pigment | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1965

TRT#: 8

SEX: Female

DAY ON TEST: 739

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1965

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibrosis TGLs = 10-16]

* Peripheral Nerve, Sciatic

Degeneration

Minimal

Note: Longitudinal section available for evaluation.

* Peripheral Nerve, Tibial

Degeneration

Mild

* Pituitary Gland

Pars Distalis

Hyperplasia

Mild

[Hyperplasia TGLs = 8-4]

* Spinal Cord, Lumbar

Nerve

Degeneration

Mild

Degeneration

Minimal

* Spinal Cord, Thoracic

Degeneration

Mild

* Spleen

Extramedullary Hematopoiesis

Mild

Pigment

Mild

* Thymus

Atrophy

Mild

Cyst

Hyperplasia

Epithelial, Minimal

* Thyroid Gland

C Cell

Hyperplasia

Mild

* Uterus

Endometrium

Hyperplasia

Cystic, Mild

Epithelium

Metaplasia

Squamous, Minimal

Polyp Stromal

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1967

TRT#: 8

SEX: Female

DAY ON TEST: 633

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1967

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Rectum
- * Ovary
- * Salivary Glands
- * Spinal Cord, Thoracic
- * Urinary Bladder
- * Aorta
- * Harderian Gland
- * Islets, Pancreatic
- * Pancreas
- Skeletal Muscle
- * Stomach, Forestomach
- * Uterus
- * Bone
- * Intestine Large, Cecum
- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Skin
- * Thyroid Gland
- * Bone Marrow
- * Intestine Large, Colon
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Spinal Cord, Cervical
- Trigeminal Ganglion

AUTO PRECLUDES DIAG.

- * Eye
- * Nose
- * Intestine Small, Duodenum
- * Stomach, Glandular
- * Intestine Small, Ileum
- * Trachea
- * Intestine Small, Jejunum

OBSERVATIONS

- * Adrenal Cortex
- * Brain
- * Clitoral Gland
- * Heart
- * Kidney
- * Liver
- * Lung
- * Mammary Gland
- * Nerve Trigeminal
- * Peripheral Nerve, Sciatic
- * Peripheral Nerve, Tibial
- Meninges
- Duct
- Ventricl Rgt
- Hepatocyte
- Hepatocyte
- Alveolus
- [Infiltration Cellular TGLs = 1-10]
- [Fibroadenoma TGLs = 2-20]
- [Hyperplasia TGLs = 3-9,21]
- Necrosis
- Granular Cell Tumor Benign
- Dilation
- Cardiomyopathy
- Cardiomyopathy
- Nephropathy
- Necrosis
- Vacuolation, Cytoplasmic
- Congestion
- Infiltration Cellular
- Inflammation
- Fibroadenoma
- Hyperplasia
- Degeneration
- Degeneration
- Degeneration
- Mild
- Mild
- Mild
- Minimal
- Chronicprogr, Minimal
- Minimal
- Mild
- Mild
- Histiocyte, Moderate
- Chronic Active, Minimal
- Mild
- Mild
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1967

TRT#: 8

SEX: Female

DAY ON TEST: 633

DOSE: 6.0W/kg(CDMA)chr

DISP: Natural Death

HISTO: 12-5224-1967

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------|-------|------------------------------|----------|
| * Spinal Cord, Lumbar | Nerve | Degeneration | Moderate |
| * Spleen | | Extramedullary Hematopoiesis | Mild |
| | | Pigment | Mild |
| * Thymus | | Atrophy | Moderate |
| | | Hemorrhage | Moderate |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1968

TRT#: 8

SEX: Female

DAY ON TEST: 579

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1968

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- Skeletal Muscle
- * Stomach, Glandular
- * Urinary Bladder
- * Aorta
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Skin
- * Thyroid Gland
- * Bone
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Pituitary Gland
- * Spinal Cord, Thoracic
- * Trachea
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Salivary Glands
- * Stomach, Forestomach
- Trigeminal Ganglion

INSUFFICIENT TISSUE

- * Thymus

OBSERVATIONS

- | | | | |
|---|---|---|---|
| <ul style="list-style-type: none"> * Adrenal Cortex * Bone Marrow * Clitoral Gland <li style="padding-left: 20px;">[Dilation TGLs = 3,4-16] * Harderian Gland * Liver * Lung <li style="padding-left: 20px;">[Infiltration Cellular TGLs = 1-10] * Lymph Node, Mandibular * Mammary Gland <li style="padding-left: 20px;">[Fibroadenoma TGLs = 5-20] * Nerve Trigeminal * Nose * Ovary * Peripheral Nerve, Sciatic * Peripheral Nerve, Tibial * Spinal Cord, Cervical * Spinal Cord, Lumbar | <ul style="list-style-type: none"> Duct Hepatocyte Alveolus Nerve | <ul style="list-style-type: none"> Hypertrophy Hypercellularity Dilation Atrophy Necrosis Infiltration Cellular Proliferation Fibroadenoma Degeneration Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Atrophy Degeneration Degeneration Degeneration Degeneration | <ul style="list-style-type: none"> Minimal Marked Marked Minimal Minimal Histiocyte, Moderate Plasma Cell, Mild Moderate Mild Minimal Mild Minimal Minimal Minimal Minimal |
|---|---|---|---|

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1968

TRT#: 8

SEX: Female

DAY ON TEST: 579

DOSE: 6.0W/kg(CDMA)chr

DISP: Moribund Sacrifice

HISTO: 12-5224-1968

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Extramedullary Hematopoiesis

Minimal

Pigment

Minimal

* Uterus

Epithelium

Metaplasia

Squamous, Moderate

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

Animal Note: TGL 2 = NCL (No Corresponding Lesion)

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1969

TRT#: 8

SEX: Female

DAY ON TEST: 745

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1969

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-----------------------------------|---------------|-------------------------------|---------------------|
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal |
| * Ovary | | Atrophy | Marked |
| * Parathyroid Gland | | Fibrosis | Minimal |
| * Peripheral Nerve, Sciatic | | Degeneration | Minimal |
| * Peripheral Nerve, Tibial | | Degeneration | Minimal |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 8-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Minimal |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Moderate |
| | | Cyst | |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Trachea | Glands | Cyst | |
| * Uterus | | Inflammation | Suppurative, Mild |
| | Epithelium | Metaplasia | Squamous, Marked |
| [Inflammation TGLs = 4,5-16,21] | | | |

Experiment Number: 20105 - 56

Test Type: CHRONIC

Route: Whole Body Exposure

Species/Strain: RATS/HSD

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Cell Phone Radiation: CDMA

CAS Number: CELLPRADCDMA

Date Report Requested: 01/02/2018

Time Report Requested: 13:31:21

First Dose M/F: 09/16/12 / 09/16/12

Lab: IIT

ANIMAL ID: 1970

TRT#: 8

SEX: Female

DAY ON TEST: 745

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1970

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Aorta | * Bone | * Esophagus |
| * Eye | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Liver |
| * Lymph Node, Mesenteric | * Pancreas | * Parathyroid Gland | * Salivary Glands |
| Skeletal Muscle | * Skin | * Spinal Cord, Cervical | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | Trigeminal Ganglion | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------------------|-----------------------|------------------------|
| * Adrenal Cortex | | Hypertrophy | Minimal |
| * Bone Marrow | | Hypercellularity | Moderate |
| * Brain | | Compression | Minimal |
| | [Compression TGLs = 8-2] | | |
| * Clitoral Gland | | Inflammation | Chronic Active, Marked |
| | [Inflammation TGLs = 5-16] | Schwannoma Malignant | |
| | [Schwannoma Malignant TGLs = 5-16] | | |
| * Harderian Gland | | Atrophy | Minimal |
| | | Inflammation | Chronic, Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| | Ventricl Rgt | Cardiomyopathy | Minimal |
| * Islets, Pancreatic | | Hyperplasia | Minimal |
| * Kidney | | Nephropathy | Chronicprogr, Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Mild |
| | [Infiltration Cellular TGLs = 7-10] | | |
| Lymph Node | Iliac, Lymph Sinus | Ectasia | Mild |
| | Iliac | Hyperplasia | Lymphocyte, Mild |
| | Iliac | Proliferation | Plasma Cell, Minimal |
| | [Ectasia TGLs = 10-24] | | |
| | [Hyperplasia TGLs = 10-24] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphocyte, Minimal |
| * Mammary Gland | Duct | Dilation | Marked |

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ANIMAL ID: 1970

TRT#: 8

SEX: Female

DAY ON TEST: 745

DOSE: 6.0W/kg(CDMA)chr

DISP: Terminal Sacrifice

HISTO: 12-5224-1970

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|--|---------------|-------------------------------|----------------------|
| | | Fibroadenoma | Multiple |
| | | Hyperplasia | Mild |
| Note: Carcinoma arising within a fibroadenoma. | | | |
| [Fibroadenoma TGLs = 1,2,3,4-20,21,22,23] | | | |
| * Nerve Trigeminal | | Degeneration | Minimal |
| * Nose | Olfactory Epi | Accumulation, Hyaline Droplet | Mild |
| * Ovary | | Atrophy | Marked |
| | | Cyst | |
| * Peripheral Nerve, Sciatic | | Degeneration | Mild |
| * Peripheral Nerve, Tibial | | Degeneration | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| [Adenoma TGLs = 9-4] | | | |
| * Spinal Cord, Lumbar | Nerve | Degeneration | Mild |
| * Spinal Cord, Thoracic | | Degeneration | Mild |
| * Spleen | | Extramedullary Hematopoiesis | Minimal |
| | | Pigment | Moderate |
| * Thymus | | Atrophy | Mild |
| | | Hyperplasia | Epithelial, Minimal |
| * Thyroid Gland | C Cell | Hyperplasia | Mild |
| * Uterus | Endometrium | Hyperplasia | Cystic, Mild |
| | | Inflammation | Suppurative, Minimal |
| | Epithelium | Metaplasia | Squamous, Moderate |

[Inflammation TGLs = 6-16]

*** END OF REPORT ***