**Supplemental Table 1. Body temperature in young Sprague Dawley rats exposed to GSM RFRa**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | **Males** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 38.3 ± 0.5 | 37.4 ± 0.6 | 37.2 ± 0.5 | 37.0 ± 0.6 | 36.9 ± 0.4 | 37.3 ± 0.2 | 36.6 ± 0.3 | 37.1 ± 0.3 | 37.1 ± 0.3 | 36.5 ± 0.3 |
| 4 | 38.1 ± 0.3 | 37.1 ± 0.4 | 37.3 ± 0.4 | 37.4 ± 0.2 | 37.3 ± 0.7 | 37.3 ± 0.4 | 37.1 ± 0.4 | 37.0 ± 0.3 | 37.2 ± 0.5 | 36.9 ± 0.5 |
| 6 | 37.9 ± 0.2 | 37.4 ± 0.2 | 37.5 ± 0.3 | 37.0 ± 0.3 | 37.4 ± 0.3 | 37.7 ± 0.4 | 36.9 ± 0.4 | 37.4 ± 0.1 | 37.2 ± 0.2 | 37.2 ± 0.1\* |
| 8 | 38.2 ± 0.2 | 37.7 ± 0.3 | 37.9 ± 0.3\* | 37.2 ± 0.4 | 37.4 ± 0.2 | 37.6 ± 0.4 | 37.2 ± 0.4 | 37.3 ± 0.3 | 37.5 ± 0.5 | 37.2 ± 0.3\* |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 37.2 ± 0.3 | 36.8 ± 0.3 | 37.2 ± 0.1 | 37.0 ± 0.3 | 36.9 ± 0.2 | 37.2 ± 0.3 | 36.8 ± 0.3 | 36.9 ± 0.2 | 37.2 ± 0.4 | 36.7 ± 0.3 |
| 10 | 37.9 ± 0.2\* | 37.7 ± 0.1\* | [38.2 ± 0.2]\* | 37.5 ± 0.1 | 37.4 ± 0.3 | 37.4 ± 0.4 | 37.5 ± 0.2\* | 37.3 ± 0.5 | 37.7 ± 0.2 | 37.3 ± 0.2\* |
| 12 | 37.3 ± 0.3 | 37.7 ± 0.2\* | [38.4 ± 0.4]\* | 37.7 ± 0.5\* | [37.9 ± 0.4]\* | [38.4 ± 0.2]\* | 37.7 ± 0.1\* | 37.6 ± 0.3\* | 37.5 ± 0.3 | 37.5 ± 0.4\* |
|  |  |  |  |  | **Females** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 38.8 ± 0.2 | 37.3 ± 0.4 | 37.3 ± 0.4 | 37.3 ± 0.5 | 37.0 ± 0.5 | 37.8 ± 0.3 | 37.1 ± 0.6 | 37.2 ± 0.5 | 38.0 ± 0.4 | 37.4 ± 0.5 |
| 4 | 38.2 ± 0.3\* | 37.3 ± 0.3 | 37.1 ± 0.3 | 37.8 ± 0.3 | 37.1 ± 0.1 | 37.6 ± 0.2 | 37.3 ± 0.8 | 36.9 ± 0.7 | 37.3 ± 0.3\* | 37.1 ± 0.6 |
| 6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 8 | 38.4 ± 0.2\* | 37.8 ± 0.4 | 38.1 ± 0.2\* | 37.8 ± 0.4 | [38.0 ± 0.2]\* | 37.7 ± 0.4 | 37.7 ± 0.2 | 37.6 ± 0.3 | 38.1 ± 0.1 | 37.5 ± 0.7 |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 38.4 ± 0.1 | 36.7 ± 0.2 | 37.3 ± 0.5 | 37.2 ± 0.1 | 36.8 ± 0.7 | 37.5 ± 0.5 | 37.1 ± 0.6 | 37.1 ± 0.4 | 37.1 ± 0.2 | 37.2 ± 0.7 |
| 10c | 38.4 ± 0.3 | 36.6 ± 0.4 | 37.2 ± 0.5 | 37.3 ± 0.2 | 37.3 ± 0.5 | 37.5 ± 0.2 | 37.4 ± 0.1 | 36.8 ± 0.5 |  37.7 ± 0.4\* | 37.2 ± 0.3 |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 37.4 ± 0.3 | 37.0 ± 0.2 | 37.3 ± 0.3 | 36.8 ± 0.2 | 37.0 ± 0.4b | 37.1 ± 0.2 | 36.8 ± 0.4 | 36.9 ± 0.1 | 37.3 ± 0.5 | 37.2 ± 0.7 |
| 12c | 37.2 ± 0.3 | 37.5 ± 0.5 | 38.0 ± 0.6\* | [38.1 ± 0.5\*] | 37.9 ± 0.4\* | [38.1 ± 0.3]\* | [37.9 ± 0.2]\* | [38.0 ± 0.3]\* | [38.4 ± 0.3]\* | 37.6 ± 0.1 |

GSM=Global System for Mobile Communication; ND=not determined; RFR=radiofrequency radiation; W/kg=Watts per kilogram.

\*Significantly different from time-matched control group (P<0.05).

[ ] Increase in group mean body temperature was ≥1°C compared to time-matched control group.

aGroup mean body temperature ± standard deviation (n=5 per group) in rats exposed to GSM RFR for approximately 9 hours a day for 5 days.

bTemperature was not measured in one animal in this group at this time point (n=4).

cExposures of 10 and 12 W/kg were conducted at separate times since power requirements of the exposure facility were not adequate for simultaneous exposure.

**Supplemental Table 2. Body temperature in young Sprague Dawley rats exposed to CDMA cell phone RFRa**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | **Males** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 37.7 ± 0.2 | 37.0 ± 0.3 | 37.0 ± 0.1 | 36.9 ± 0.3 | 37.0 ± 0.2 | 37.4 ± 0.5 | 37.0 ± 0.3 | 36.9 ± 0.3 | 37.0 ± 0.2 | 36.7 ± 0.3 |
| 4 | 37.8 ± 0.3 | 37.1 ± 0.3 | 37.1 ± 0.2 | 36.7 ± 0.3 | 37.0 ± 0.3 | 37.1 ± 0.4 | 36.8 ± 0.2 | 36.9 ± 0.4 | 37.4 ± 0.6 | 36.9 ± 0.2 |
| 6 | 37.4 ± 0.2 | 37.2 ± 0.3 | 37.7 ± 0.4 | 37.1 ± 0.3 | 37.2 ± 0.2 | 37.3 ± 0.3 | 37.1 ± 0.3 | 37.2 ± 0.3 | 37.4 ± 0.3 | 36.7 ± 0.6 |
| 8 | 36.4 ± 1.6 | 36.7 ± 1.6 | 36.7 ± 1.8 | 36.5 ± 1.9 | 36.4 ± 2.1 | NDb | 35.9 ± 2.1c | 36.4 ± 1.9 | 36.6 ± 2.1 | 36.4 ± 1.7 |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 38.7 ± 0.3 | 37.5 ± 0.6 | 37.6 ± 0.4 | 37.3 ± 0.2 | 37.4 ± 0.4 | 37.4 ± 0.2 | 36.9 ± 0.2 | 37.2 ± 0.5 | 37.5 ± 0.2 | 36.8 ± 0.4 |
| 10 | 38.9 ± 0.5 | 37.9 ± 0.3 | 38.4 ± 0.2\* | 37.8 ± 0.2\* | 37.7 ± 0.5 | 38.0 ± 0.2 | [37.9 ± 0.4]\* | 37.6 ± 0.7 | 37.9 ± 0.2 | [37.8 ± 0.2]\* |
| 12 | 39.1 ± 0.5 | [38.6 ± 0.2]\* | [39.1 ± 0.8]\* | [38.4 ± 0.3]\* | 38.3 ± 0.3\* | [38.9 ± 0.9]\* | [38.1 ± 0.2]\* | 38.1 ± 0.4\* | [38.5 ± 0.4]\* | [38.1 ± 0.4]\* |
|  |  |  |  |  | **Females** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 37.6 ± 0.6 | 36.7 ± 0.3 | 37.1 ± 0.3 | 36.6 ± 0.6 | 36.9 ± 0.3 | 37.1 ± 0.3 | 36.6 ± 0.3 | 37.0 ± 0.4 | 37.2 ± 0.6 | 36.5 ± 0.2 |
| 4 | 37.4 ± 0.6 | 36.9 ± 0.2 | 37.1 ± 0.3 | 37.0 ± 0.2 | 37.1 ± 0.3 | 37.7 ± 0.5 | 36.7 ± 0.3 | 36.8 ± 0.3 | 37.5 ± 0.6 | 36.9 ± 0.3 |
| 6 | 37.8 ± 0.6 | 37.0 ± 0.5 | 37.5 ± 0.3 | 37.0 ± 0.4 | 37.0 ± 0.1 | 37.2 ± 0.3 | 37.4 ± 0.6 | 37.0 ± 0.3 | 37.5 ± 0.5 | 37.5 ± 0.7 |
| 8d | 38.6 ± 1.1 | [37.8 ± 1.0]\* | [38.2 ± 1.6] | [37.9 ± 0.9]\* | 37.8 ± 0.9\* | [38.4 ± 0.7]\* | 37.5 ± 1.0 | 37.7 ± 1.1 | 38.1 ± 0.9 | [37.6 ± 1.0]\* |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 38.9 ± 0.2 | 37.6 ± 0.1 | 37.8 ± 0.4 | 37.8 ± 0.4 | 37.7 ± 0.3 | 38.1 ± 0.5 | 37.5 ± 0.5 | 37.5 ± 0.3 | 38.1 ± 0.5 | 37.6 ± 0.4 |
| 10 | 39.5 ± 0.4\* | 37.9 ± 0.2 | 38.3 ± 0.2 | 37.8 ± 0.5 | 38.1 ± 0.3 | 38.1 ± 0.3 | 37.9 ± 0.5 | 37.3 ± 0.4 | 38.2 ± 0.3 |  38.5 ± 0.1\* |
| 12 | 38.9 ± 0.3 | 37.4 ± 0.5 | 38.2 ± 0.4 | 38.1 ± 0.4 | 38.1 ± 0.5 | 38.4 ± 0.4c | 37.9 ± 0.4 | 37.4 ± 0.5 | 38.3 ± 0.4 | 37.8 ± 0.4 |

CDMA=Code Division Multiple Access; ND= not determined; RFR=radiofrequency radiation; W/kg=Watts per kilogram.

\*Significantly different from time-matched control group (P<0.05).

[ ] Increase in group mean body temperature was ≥1°C compared to time-matched control group.

aGroup mean body temperature ± standard deviation (n=5 per group) in rats exposed to GSM RFR for approximately 9 hours a day for 5 days.

bBody temperature was not measured at this time point.

cReduced number of animals (n=4) in group for this time point.

dSensor apparently malfunctioned, n=4 in this group.

**Supplemental Table 3. Body temperature in aged Sprague Dawley rats exposed to GSM cell phone RFRa**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | **Males** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3b | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 37.8 ± 0.3 | 37.0 ± 0.5 | 36.9 ± 0.6 | 36.7 ± 1.1 | 36.5 ± 0.4 | 37.0 ± 0.4 | ND | 37.0 ± 0.6 | 36.6 ± 0.5 | 36.4 ± 0.4 |
| 4 | 38.0 ± 0.2 | 37.5 ± 0.4 | 37.2 ± 0.4 | 36.6 ± 0.1 | 36.8 ± 0.3 | 36.9 ± 0.6 | ND | 37.2 ± 0.3 | 37.5 ± 0.8 | 36.2 ± 0.3 |
| 6 | 38.1 ± 0.6 | [38.0 ± 0.3]\* | [38.0 ± 0.5]\* | 37.2 ± 0.4 | 37.2 ± 0.3\* | 37.6 ± 0.2 | ND | 37.2 ± 0.3 | 37.3 ± 0.6 | 36.7 ± 0.3 |
| 8 | 37.9 ± 0.3 | [39.3 ± 0.3]\* |  37.8 ± 0.1\* | [39.0 ± 0.6]\* | [38.2 ± 0.5]\* | 37.2 ± 0.4 | ND | 37.5 ± 0.6 | 37.4 ± 0.5 |  [37.8 ± 0.5]\* |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 36.5 ± 0.4 | 36.7 ± 0.3 | 36.8 ± 0.4 | 35.8 ± 0.4 | NDc | ND | ND | ND | ND |  ND |
| 10d | 36.6 ± 0.3 | [39.8 ± 0.3]\* | [38.3 ± 0.5]\* |  NDc | ND | ND | ND | ND | ND |  ND |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 38.0 ± 0.3 | 36.5 ± 0.3 | 36.7 ± 0.4 | 36.4 ± 0.5 | NDc | ND | ND | ND | ND |  ND |
| 12d | 37.4 ± 0.7 | [41.0 ± 0.6]\* | [41.0 ± 1.2]\* | NDc | ND | ND | ND | ND | ND |  ND |
|  |  |  |  |  | **Females** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3b | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 38.0 ± 0.5 | 37.0 ± 0.4 | 37.1 ± 0.9 | 36.8 ± 0.7 | 36.9 ± 0.6 | 37.1 ± 0.3 | ND | 36.7 ± 0.5 | 37.0 ± 0.3 | 36.8 ± 0.6 |
| 4 | 38.3 ± 0.2 | 37.3 ± 0.5 | 37.2 ± 0.5 | 36.6 ± 0.3 | 37.3 ± 0.7 | 37.2 ± 0.6 | ND | 36.9 ± 0.8 | 36.9 ± 0.5 | 36.7 ± 0.3 |
| 6 | 38.3 ± 0.3 | 37.3 ± 0.4 | 37.9 ± 0.2 | 37.1 ± 0.3 | 37.3 ± 0.3 | 37.5 ± 0.2 | ND | 36.9 ± 0.3 | 37.3 ± 0.3e | 37.3 ± 0.7 |
| 8 | 38.3 ± 0.4 | [38.1 ± 0.6]\* | [38.2 ± 0.7]\* | 37.3 ± 0.3 | [37.9 ± 0.4]\* |  38.0 ± 0.2\* | ND | 37.3 ± 0.5 | 37.6 ± 0.7 | 37.0 ± 0.4 |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 37.4 ± 0.3 | 36.7 ± 0.1 | 36.7 ± 0.6 | 37.0 ± 0.6 | 36.5 ± 0.5 | 37.5 ± 0.6 | 36.5 ± 0.5e | 36.9 ± 0.7 | 37.4 ± 0.6 | 36.9 ± 0.6 |
| 10d | 37.7 ± 0.6 | [38.6 ± 0.8]\* | [38.6 ± 0.4]\* | [38.1 ± 0.6]\* | [37.6 ± 0.5]\* | [38.5 ± 0.5]\* | [37.9 ± 0.4]\* |  37.8 ± 0.5\* | [38.5 ± 0.3]\* | [38.2 ± 0.2]\* |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 38.4 ± 0.3 | 37.0 ± 0.7 | 37.0 ± 0.4 | 36.4 ± 0.4 | NDc | ND | ND | ND | ND | ND |
| 12d | 38.4 ± 0.3 |  [38.8 ± 0.5]\* |  [39.1 ± 0.8]\* |  [39.9 ± 0.7]\* | NDc |  ND | ND | ND | ND | ND |

GSM=Global System for Mobile Communication; ND= not determined; RFR=radiofrequency radiation; W/kg=Watts per kilogram.

\*Significantly different from time-matched control group (P<0.05).

[ ] Increase in group mean body temperature was ≥1°C compared to time-matched control group.

aGroup mean body temperature ± standard deviation (n=5 per group) in rats exposed to GSM RFR for approximately 9 hours a day for 5 days.

bTemperature was not measured at this time point, except in the 10 W/kg exposure females.

cAnimals were found dead so no subsequent data was collected.

dExposures of 10 and 12 W/kg were conducted at separate times since power requirements of the exposure facility were not adequate for simultaneous exposure.

eExposures were discontinued in this group at 20 hrs (Day 1) due to excessive increases in body temperature.

fReduced number of animals (n=4) in group for this time point.

**Supplemental Table 4. Body temperature in aged Sprague Dawley rats exposed to CDMA cell phone RFRa**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | **Males** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 |  38.2 ± 0.1e | 36.7 ± 0.2 | 37.0 ± 0.4 | 36.3 ± 0.5 | 37.0 ± 0.4e | 36.7 ± 0.5 | 36.1 ± 0.7 | 36.5 ± 0.3 | 37.1 ± 0.5 | 36.4 ± 0.3 |
| 4 | 38.2 ± 0.4 | 37.0 ± 0.3 | 37.1 ± 0.5 | 36.3 ± 0.2 | 36.5 ± 0.2 | 37.4 ± 0.5 | 36.4 ± 0.3 | 36.7 ± 0.2 | 37.0 ± 0.7 | 36.2 ± 0.2 |
| 6 | 38.2 ± 0.2 | 37.5 ± 0.3\* |  37.7 ± 0.4\* |  37.0 ± 0.4\* | 37.2 ± 0.4 |  [37.8 ± 0.5]\* |  37.0 ± 0.5\* |  37.1 ± 0.2\* | 37.6 ± 0.5 |  37.0 ± 0.3\* |
| 8 | 37.9 ± 0.3 |  [38.2 ± 0.3]\* | 37.6 ± 0.3 |  [38.7 ± 0.6]\* | 37.5 ± 0.2 | 37.4 ± 0.7 |  [38.2 ± 0.6]\* |  37.3 ± 0.4\* | 37.1 ± 0.4 |  [37.6 ± 0.4]\* |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 |  37.6 ± 0.5e | 36.3 ± 0.2 | 37.0 ± 0.3 | 36.3 ± 0.4 |  NDd | ND | ND | ND | ND | ND |
| 10 | 37.5 ± 0.5 |  [38.7 ± 0.2]\* | 37.9 ± 0.7 | [40.1 ± 1.1]\* |  NDd | ND | ND | ND | ND | ND |
| 12 | 37.3 ± 0.7 |  [40.8 ± 0.4]\* | [39.3 ± 1.9]\*b | NDc | ND | ND | ND | ND | ND | ND |
|  |  |  |  |  | **Females** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 38.5 ± 0.5 | 37.4 ± 0.7 | 37.1 ± 0.5 | 37.0 ± 0.6 | 36.8 ± 0.4 | 36.8 ± 0.1 | 36.6 ± 0.2 | 36.4 ± 0.5 | 36.9 ± 0.2 | 37.3 ± 0.8 |
| 4 | 38.4 ± 0.5 | 36.9 ± 0.3 | 37.1 ± 0.8 | 37.2 ± 1.0 | 36.8 ± 0.4 | 36.7 ± 0.4 | 36.6 ± 0.5 | 36.9 ± 0.4 | [38.0 ± 0.5]\* | 37.6 ± 1.1 |
| 6 | 38.1 ± 0.8 | 37.4 ± 0.3 | 37.7 ± 0.3 | 37.1 ± 0.3 | 37.6 ± 0.5 | [37.9 ± 0.3]\* | 37.3 ± 0.4 | 37.2 ± 0.6 | 37.8 ± 0.3\* | 37.6 ± 0.5 |
| 8 | 38.3 ± 0.2 | 37.7 ± 0.4 | [38.2 ± 0.4]\* | 37.1 ± 0.4 | 37.5 ± 0.7 | [38.0 ± 0.4]\* | [37.7 ± 0.5]\* | [37.8 ± 0.7]\* | [38.1 ± 0.4]\* | 37.5 ± 0.4 |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 38.3 ± 0.5 | 36.6 ± 0.4 | 37.3 ± 0.7 | 37.3 ± 0.7 | 36.7 ± 0.8 | 37.3 ± 0.9 | 36.5 ± 0.3 | 36.9 ± 0.6 | 37.4 ± 0.7 | 36.7 ± 0.2 |
| 10 | 38.8 ± 0.4 |  [38.2 ± 0.5]\* | [38.3 ± 0.8] | 38.2 ± 0.8 | [38.1 ± 0.5]\* | [38.9 ± 0.7]\* | 36.7 ± 0.6 | [38.1 ± 0.7]\* | [38.5 ± 0.7]\* | [38.2 ± 0.7]\* |
| 12 | 38.1 ± 0.2 |  [38.6 ± 0.6]\* | [38.4 ± 0.5]\* | 38.0 ± 0.3 | [37.9 ± 0.3]\* | [38.6 ± 0.5]\* | 37.4 ± 0.5\* | [38.2 ± 0.5]\* | [38.5 ± 0.5]\* | [38.0 ± 0.9]\* |

CDMA=Code Division Multiple Access; ND= not determined; RFR=radiofrequency radiation; W/kg=Watts per kilogram.

\*Significantly different from time-matched control group (P<0.05).

[ ] Increase in group mean body temperature was ≥1°C compared to time-matched control group.

aGroup mean body temperature ± standard deviation (n=5 per group) in rats exposed to GSM RFR for approximately 9 hours a day for 5 days.

bOne animal was found dead at time of body temperature collection.

cAll animals were found dead so no subsequent data was collected.

dExposures were discontinued due to excessive increases in body temperature.

eReduced number of animals (n=4) in group for this time point.

**Supplemental Table 5. Body temperature in pregnant female Sprague Dawley rats exposed to GSM cell phone RFRa**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 37.8 ± 0.3 | 36.8 ± 0.3 | 37.2 ± 0.5 | 36.7 ± 0.5 | 36.8 ± 0.2 | 36.9 ± 0.3 | 36.7 ± 0.5 | 36.5 ± 0.7 | 36.9 ± 0.6 | 36.8 ± 0.4 |
| 4 | 37.9 ± 0.2 | 37.0 ± 0.4 | 37.7 ± 0.5 | 37.1 ± 0.3 | 37.0 ± 0.4 | 37.3 ± 0.3 | 37.3 ± 0.5 | 36.9 ± 0.4 | 37.1 ± 0.6 | 36.6 ± 0.3 |
| 6 | 37.7 ± 0.3 | 37.6 ± 0.3\* | 37.8 ± 0.3 | 37.0 ± 0.3 | 37.6 ± 0.3\* | 37.5 ± 0.6 | 37.3 ± 0.4 | 37.3 ± 0.4\* | 37.4 ± 0.4 | 37.0 ± 0.4 |
| 8 | 37.8 ± 0.2 | [37.8 ± 0.3]\* |  [38.3 ± 0.4]\* | 37.2 ± 0.4 | 37.7 ± 0.3\* | 37.6 ± 0.4\* | [37.8 ± 0.2]\* | 37.3 ± 0.3\* | 37.7 ± 0.2\* | 37.6 ± 0.5\* |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 38.1 ± 0.2 | 37.2 ± 0.4 | 37.3 ± 0.2 | 37.0 ± 0.5 | 37.2 ± 0.3 | 37.1 ± 0.5 | 37.0 ± 0.5 | 37.4 ± 0.6 | 37.4 ± 0.6 | 36.7 ± 0.7 |
| 10 | 38.3 ± 0.3 | [38.3 ± 0.2]\* |  [38.4 ± 0.3]\* | 37.6 ± 0.4 | 37.8 ± 0.2\* | [38.4 ± 0.2]\* | 37.8 ± 0.4\* | 38.1 ± 0.2 | 37.8 ± 0.3 | 37.5 ± 0.5 |
| 12 | 38.2 ± 0.2 | [39.3 ± 0.5]\* |  [38.7 ± 0.5]\* |  [39.4 ± 0.8]\* | [38.6 ± 0.5]\* | [38.8 ± 0.3]\* | [38.8 ± 0.4]\* |  [38.5 ± 0.4]\* |  [38.9 ± 0.4]\* | [38.3 ± 0.5]\* |

GSM=Global System for Mobile Communication; RFR=radiofrequency radiation; W/kg=Watts per kilogram.

\*Significantly different from time-matched control group (P<0.05).

[ ] Increase in group mean body temperature was ≥1°C compared to time-matched control group.

aGroup mean body temperature ± standard deviation (n=5 per group) in rats exposed to GSM RFR for approximately 9 hours a day for 5 days.

**Supplemental Table 6. Body temperature in pregnant female Sprague Dawley rats exposed to CDMA cell phone RFRa**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 38.2 ± 0.2 | 36.9 ± 0.7 | 36.8 ± 0.5 | 36.8 ± 0.6 | 37.2 ± 0.1 | 37.0 ± 0.5 | 36.6 ± 0.4 | 36.7 ± 0.3 | 36.9 ± 0.3 | 36.9 ± 0.7 |
| 4 | 38.1 ± 0.3 | 37.3 ± 0.5 | 37.6 ± 0.3\* | 36.7 ± 0.4 | 37.2 ± 0.5 | 37.4 ± 0.7 | 37.1 ± 0.3\* | 36.7 ± 0.4 | 37.1 ± 0.5 | 36.9 ± 0.5 |
| 6 | 38.1 ± 0.4 | 37.6 ± 0.4 | [38.0 ± 0.3]\* | 37.0 ± 0.3 | 37.1 ± 0.3 | 37.6 ± 0.4 | 37.1 ± 0.2\* | 37.2 ± 0.3 | 37.6 ± 0.2\* | 37.2 ± 0.3 |
| 8 | 38.5 ± 0.4 | 37.8 ± 0.2\* | [38.0 ± 0.4]\* | 37.3 ± 0.5 | 37.1 ± 0.4 | 37.6 ± 0.6 | 37.4 ± 0.4\* | 37.5 ± 0.4\* | 37.8 ± 0.4\* | 37.2 ± 0.4 |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 37.4 ± 0.5 | 37.0 ± 0.3 | 37.2 ± 0.3 | 36.8 ± 0.5 | 37.0 ± 0.8 | 37.0 ± 0.4 | 36.9 ± 0.4 | 37.0 ± 0.4 | 36.9 ± 0.4 | 36.8 ± 0.4 |
| 10 | 37.4 ± 0.1 | [38.6 ± 0.9]\* | [38.9 ± 0.2]\* | [38.0 ± 0.8]\* | [38.2 ± 0.4]\* | [38.4 ± 0.6]\* | 37.8 ± 0.5\* | [38.1 ± 0.1]\* | [38.5 ± 0.5]\* | 37.4 ± 0.6 |
| 12 | 37.7 ± 0.5 | [39.0 ± 0.5]\* | [39.1 ± 0.5]\* | [38.5 ± 0.3]\* | [38.1 ± 0.5]\* | [38.9 ± 0.1]\* | [38.3 ± 0.4]\* | [38.9 ± 0.1]\* | [38.8 ± 0.2]\* | [38.0 ± 0.5]\* |

CDMA=Code Division Multiple Access; RFR=radiofrequency radiation; W/kg=Watts per kilogram.

\*Significantly different from time-matched control group (P<0.05).

[ ] Increase in group mean body temperature was ≥1°C compared to time-matched control group.

aGroup mean body temperature ± standard deviation (n=5 per group) in rats exposed to GSM RFR for approximately 9 hours a day for 5 days.

**Supplemental Table 7. Body temperature in young B6C3F1 mice exposed to GSM cell phone RFRa**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | **Males** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 38.5 ± 0.3 | 36.2 ± 0.6 | 37.2 ± 0.4 | 36.0 ± 0.4 | 36.3 ± 0.4 | 37.3 ± 0.5 | 36.6 ± 0.7 | 35.9 ± 0.2b | 37.2 ± 0.2 | 36.1 ± 0.2 |
| 4 | 37.9 ± 1.2 | 36.1 ± 0.8 | 36.8 ± 1.3 | 35.7 ± 0.8 | 35.6 ± 0.7 | 36.6 ± 1.0 | 36.3 ± 1.1 | 35.7 ± 1.7 | 36.5 ± 1.3 | 35.2 ± 1.6 |
| 6 | 38.7 ± 0.1 | 36.5 ± 0.3 | 37.3 ± 0.4 | [37.4 ± 0.9]\* | 36.6 ± 0.5 | 37.1 ± 0.2 | 36.8 ± 1.1 | 36.1 ± 0.3 | 37.4 ± 0.1 | 36.6 ± 0.5 |
| 8 | 38.8 ± 0.3 | 36.4 ± 0.6 | 37.2 ± 0.5 | 36.1 ± 0.6 | 36.1 ± 0.2 | 37.5 ± 0.6 | 37.1 ± 0.7 | 36.2 ± 0.5 | 37.3 ± 0.5 | 37.5 ± 1.0 |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 38.2 ± 0.5 | 36.3 ± 0.3 | 37.4 ± 0.5 | 36.5 ± 0.3 | 36.2 ± 0.4 | 37.3 ± 0.2 | 36.3 ± 0.4 | 36.0 ± 0.3b | 37.2 ± 0.3 | 35.7 ± 0.2 |
| 10 | 37.9 ± 0.6 | 36.3 ± 0.4 | 37.1 ± 0.5 | 36.6 ± 1.2b | 36.4 ± 0.3 | 37.3 ± 0.4 | 36.5 ± 0.2 | 36.0 ± 0.5 | 37.4 ± 0.3 | 36.6 ± 0.6\* |
| 12 | 38.6 ± 0.5 | 36.7 ± 0.4 | 37.3 ± 0.6 | 36.5 ± 1.0 | 36.9 ± 0.2\* | 37.7 ± 0.4 | 36.8 ± 0.7 | 36.8 ± 0.4\* | 37.5 ± 0.4 | [36.7 ± 0.4]\* |
|  |  |  |  |  | **Females** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 38.6 ± 0.1 | 37.0 ± 0.2 | 37.2 ± 0.3 | 36.8 ± 0.8 | 36.2 ± 0.4 | 37.2 ± 0.5 | 36.5 ± 0.7 | 36.4 ± 0.2 | 37.5 ± 0.4 | 36.6 ± 0.3 |
| 4 | 38.7 ± 0.3 | 36.7 ± 0.3 | 37.6 ± 0.3 | 37.1 ± 0.7 | 36.6 ± 0.4 | 37.7 ± 0.6 | 36.7 ± 0.8 | 36.8 ± 0.4 | 37.9 ± 0.4 | 37.3 ± 0.7 |
| 6 | 38.7 ± 0.2 | 36.2 ± 0.3\* | 36.9 ± 0.3 | 36.9 ± 0.5 | 36.8 ± 0.4 | 37.5 ± 0.2 | 36.4 ± 0.3 | 36.1 ± 0.3 | 37.0 ± 0.1 | 36.6 ± 0.7 |
| 8 | 38.5 ± 0.2 | 36.7 ± 0.5 | 37.1 ± 0.8 | 36.7 ± 0.7 | 36.5 ± 0.5 | 37.7 ± 0.5 | 36.6 ± 0.6 | 36.8 ± 0.4 | 37.1 ± 0.3 | 36.8 ± 0.7 |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 38.4 ± 0.5 | 36.8 ± 0.2 | 37.3 ± 0.7 | 36.8 ± 0.6 | 36.9 ± 0.5 | 37.5 ± 0.8 | 37.0 ± 1.0 | 36.8 ± 0.3 | 37.2 ± 0.7 | 37.0 ± 1.2b |
| 10 | 38.1 ± 0.4 | 36.7 ± 0.4 | 37.1 ± 0.8 | 36.7 ± 0.7 | 36.8 ± 0.2 | 37.2 ± 0.7 | 36.6 ± 0.4 | 36.6 ± 0.2 | 37.8 ± 0.5 | 37.4 ± 0.7 |
| 12 | 38.1 ± 0.5 | 36.8 ± 0.7 | 37.1 ± 1.0 | 36.7 ± 1.2 | 36.3 ± 1.2 | 37.4 ± 0.6 | 36.2 ± 1.5 | 36.4 ± 1.1 | 37.6 ± 0.9 | 36.4 ± 1.1 |

GSM=Global System for Mobile Communication; RFR=radiofrequency radiation; W/kg=Watts per kilogram.

\*Significantly different from time-matched control group (P<0.05).

[ ] Increase in group mean body temperature was ≥1°C compared to time-matched control group.

aGroup mean body temperature ± standard deviation (n=5 per group) in rats exposed to GSM RFR for approximately 9 hours a day for 5 days.

bReduced number of animals (n=4) in group for this time point.

**Supplemental Table 8. Body temperature in young B6C3F1 mice exposed to CDMA cell phone RFRa**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | **Males** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 38.2 ± 0.0 | 36.0 ± 0.2 | 37.0 ± 0.4 | 36.1 ± 0.4 | 36.5 ± 0.4 | 37.0 ± 0.1 | 36.7 ± 0.6 | 36.4 ± 0.8 | 37.0 ± 0.1 | 36.0 ± 0.5 |
| 4 | 37.6 ± 1.9 | 35.3 ± 1.8 | 36.1 ± 1.7 | 35.5 ± 2.1 | 35.9 ± 1.5 | 36.3 ± 1.7 | 35.6 ± 1.5 | 35.7 ± 2.4 | 36.1 ± 2.0 | 35.3 ± 1.7 |
| 6 | 38.9 ± 0.3 | 36.2 ± 0.3 | 37.4 ± 0.6 | 36.0 ± 0.3 | 37.2 ± 0.4 | 37.4 ± 0.3 | 37.0 ± 0.5 | 36.7 ± 0.3 | 37.4 ± 0.4 | 36.8 ± 0.8 |
| 8 | 37.7 ± 2.3 | 36.2 ± 0.5b | 37.4 ± 0.6 | 36.3 ± 0.3 | 36.7 ± 0.9 | 37.0 ± 0.2 | 36.5 ± 0.3 | 36.1 ± 0.3 | 37.0 ± 0.2 | 36.3 ± 0.3 |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 38.6 ± 0.3 | 35.9 ± 0.5 | 37.3 ± 0.5 | 36.6 ± 0.4 | 36.4 ± 0.2 | 37.3 ± 0.4 | 36.2 ± 0.2 | 36.2 ± 0.2 | 37.1 ± 0.1 | 36.7 ± 0.6 |
| 10 | 38.9 ± 0.2 | [36.9 ± 0.8]\* | 37.6 ± 0.2 | 36.3 ± 0.2 | 36.1 ± 0.4 | 37.5 ± 0.6 | 37.1 ± 1.1 | 36.5 ± 0.6 |  37.7 ± 0.4\* | 37.3 ± 0.6 |
| 12 |  39.2 ± 0.1\* | 36.1 ± 0.3 | 37.9 ± 0.4 | 36.8 ± 0.6 | 36.1 ± 0.4 | 37.2 ± 0.5 | 36.8 ± 0.3 | 36.4 ± 0.4 | 37.6 ± 0.3 | 36.2 ± 0.7 |
|  |  |  |  |  | **Females** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 38.2 ± 0.3 | 36.6 ± 0.4 | 37.6 ± 0.5 | 36.9 ± 0.8 | 37.0 ± 0.7 | 37.3 ± 0.8 | 37.0 ± 0.6 | 36.7 ± 0.6 | 36.9 ± 0.5 | 36.5 ± 0.5 |
| 4b | 38.3 ± 0.3 | 36.5 ± 0.5 | 37.4 ± 0.2 | 36.6 ± 0.3 | 36.9 ± 0.7 | 37.9 ± 0.6 | 36.5 ± 0.3 | 36.7 ± 0.6 | 37.3 ± 0.4 | 37.0 ± 0.4 |
| 6 | 38.4 ± 0.4 | 36.7 ± 0.8 | 37.3 ± 0.6 | 36.7 ± 0.5 | 37.3 ± 0.8 | 37.7 ± 0.5 | 36.6 ± 0.5 | 36.5 ± 0.2 | 37.2 ± 0.4 | 37.0 ± 0.9 |
| 8 | 38.4 ± 0.3 | 36.9 ± 0.3 | 37.4 ± 0.4 | 36.5 ± 0.2 | 37.0 ± 0.6 | 37.7 ± 0.7 | 36.6 ± 0.9 | 36.6 ± 0.4 | 36.9 ± 0.4 | 36.6 ± 0.4 |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 38.7 ± 0.3 | 37.3 ± 0.5 | 37.7 ± 0.4 | 37.6 ± 0.7 | 36.6 ± 0.2 | 37.8 ± 0.7 | 37.1 ± 0.9 | 36.8 ± 0.4 | 37.7 ± 0.2 | 37.3 ± 0.7 |
| 10 | 38.6 ± 0.2 | 36.9 ± 0.2 | 37.8 ± 0.1 |  36.7 ± 0.3\* | 37.0 ± 0.3 | 37.8 ± 0.5 | 37.1 ± 0.5 | 36.9 ± 0.3 | 37.7 ± 0.5 | 37.2 ± 1.0 |
| 12 | 38.7 ± 0.2 | 36.7 ± 0.4 | 37.6 ± 0.1 | 36.9 ± 0.4 | 36.6 ± 0.5 | 37.7 ± 0.4 | 36.9 ± 0.5 | 37.1 ± 0.2 | 38.1 ± 0.3 | 37.2 ± 0.8 |

CDMA=Code Division Multiple Access; RFR=radiofrequency radiation; W/kg=Watts per kilogram.

\*Significantly different from time-matched control group (P<0.05).

[ ] Increase in group mean body temperature was ≥1°C compared to time-matched control group.

aGroup mean body temperature ± standard deviation (n=5 per group) in rats exposed to GSM RFR for approximately 9 hours a day for 5 days.

bReduced number of animals (n=4) in group for this time point.

cSensor malfunctioned, n = 4 in this group.

**Supplemental Table 9. Body temperature in aged B6C3F1 mice exposed to GSM cell phone RFRa**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | **Males** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 37.8 ± 0.2 | 36.3 ± 0.6 | 36.4 ± 0.4 | 35.7 ± 0.4 | 36.7 ± 0.4 | 36.1 ± 0.5 | 36.4 ± 0.8 | 36.1 ± 0.8 | 36.2 ± 0.4 | 35.9 ± 0.4 |
| 2b | 37.7 ± 0.3 | 35.8 ± 0.2 | 36.3 ± 0.7 | 36.0 ± 0.7 | 36.4 ± 0.8 | 36.2 ± 0.4 | 36.5 ± 0.5 | 36.0 ± 0.4 | 36.4 ± 0.9 | 35.5 ± 0.8 |
| 6 | 38.7 ± 2.5 | 36.7 ± 1.9 | 36.9 ± 1.8 | 36.4 ± 2.3 | 36.6 ± 2.5 | 36.7 ± 2.0 | 37.3 ± 2.2 | 36.6 ± 2.0 | 37.1 ± 2.2 | 37.2 ± 1.7 |
| 8 | 38.2 ± 0.4c | 36.2 ± 0.3 | 36.1 ± 0.2 | 36.1 ± 0.6 | 36.2 ± 0.2 | 36.3 ± 0.4 | 36.3 ± 0.4 | 36.0 ± 0.2 | 36.4 ± 0.3 | 36.4 ± 0.3c |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 37.0 ± 0.4 | 36.6 ± 0.6 | 37.5 ± 0.7 | 36.2 ± 0.7 | 36.6 ± 0.8 | 37.0 ± 0.4 | 36.3 ± 0.4 | 36.1 ± 0.3 | 37.0 ± 0.2 | 36.3 ± 0.4 |
| 10 | 36.9 ± 0.8 | 36.4 ± 0.2 | 36.7 ± 0.3 | 36.3 ± 0.4 | 35.4 ± 0.4\* | 37.0 ± 0.4 | 36.5 ± 0.4 | 36.2 ± 0.2 | 37.3 ± 0.4 | 36.5 ± 0.2 |
| 12 | 37.1 ± 0.9 | 36.6 ± 0.8 | 36.7 ± 0.9 | 36.5 ± 0.4 | 35.3 ± 0.7\* | 37.0 ± 1.5 | 36.9 ± 0.5 | 37.0 ± 0.4\* | 37.4 ± 0.5 | 36.5 ± 0.6 |
|  |  |  |  |  | **Females** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 38.0 ± 0.5 | 37.1 ± 0.6 | 37.1 ± 0.5c | 36.7 ± 1.2c | 36.9 ± 0.6 | 37.4 ± 0.9 | 36.7 ± 0.3 | 37.3 ± 0.5 | 37.0 ± 0.5 | 36.6 ± 0.6 |
| 2b | 38.2 ± 0.7 | 36.6 ± 0.5 | 36.4 ± 0.4 | 36.3 ± 0.4 | 36.6 ± 0.3 | 36.7 ± 0.5 | 36.3 ± 0.5 | 37.1 ± 0.9c | 37.1 ± 0.5c | 36.9 ± 0.8c |
| 6 | 38.3 ± 0.4c | 36.8 ± 0.4 | 36.9 ± 0.2 | 36.6 ± 0.4 | 36.8 ± 0.3 | 36.9 ± 0.8 | 36.4 ± 0.3 | 36.7 ± 0.2 | 37.0 ± 0.1 | 37.5 ± 0.5 |
| 8 | 38.6 ± 0.7c | 36.8 ± 0.4 | 37.0 ± 0.5 | 36.6 ± 0.6 | 36.7 ± 0.4 | 36.8 ± 0.5 | 36.5 ± 0.3 | 36.8 ± 0.5 | 36.9 ± 0.5 | 36.9 ± 0.5 |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 37.9 ± 0.5 | 37.6 ± 0.4 | 37.7 ± 0.6 | 37.0 ± 0.5 | 37.3 ± 0.2 | 37.8 ± 0.4 | 36.9 ± 0.6 | 37.4 ± 0.4 | 37.1 ± 0.6 | 37.0 ± 0.3 |
| 10 | 37.3 ± 1.0 | 37.3 ± 0.6 | 37.4 ± 0.2 | 36.8 ± 0.5 | 36.0 ± 0.7\* | 37.3 ± 0.6 | 36.8 ± 0.6 | 37.2 ± 0.8 | 37.5 ± 0.3 | 36.8 ± 0.7 |
| 12 | 37.1 ± 0.4 | 37.5 ± 0.1 | 37.2 ± 0.5 | 36.9 ± 0.7 | 35.5 ± 0.4\* | 37.6 ± 0.2 | 37.0 ± 0.4 | 37.0 ± 0.3 | 37.5 ± 0.4 | 37.1 ± 0.2 |

GSM=Global System for Mobile Communication; RFR=radiofrequency radiation; W/kg=Watts per kilogram.

\*Significantly different from time-matched control group (P<0.05).

aGroup mean body temperature ± standard deviation (n=5 per group) in rats exposed to GSM RFR for approximately 9 hours a day for 5 days.

bAnimals were exposed to 2 W/kg instead of 4 W/kg.

cReduced number of animals (n=4) in group for this time point.

**Supplemental Table 10. Body temperature in aged B6C3F1 mice exposed to CDMA cell phone RFRa**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | **Males** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 36.8 ± 0.3 | 36.4 ± 0.3 | 36.4 ± 1.0 | 35.8 ± 0.3 | 35.9 ± 0.2 | 36.3 ± 0.3 | 36.3 ± 0.7 | 36.3 ± 0.4b | 36.8 ± 1.0 | 36.3 ± 0.7 |
| 4 | 37.0 ± 0.3 | 36.3 ± 0.3 | 36.1 ± 0.3 | 36.2 ± 0.9 | 35.8 ± 0.3 | 36.1 ± 0.4 | 35.9 ± 0.4 | 36.1 ± 0.5 | 36.3 ± 0.4 | 35.8 ± 0.4 |
| 6 | 37.1 ± 0.7 | 36.0 ± 0.4 | 36.4 ± 0.3 | 35.9 ± 0.4 | 36.2 ± 0.3 | 36.2 ± 0.2 | 36.3 ± 0.5 | 36.8 ± 0.4 | 36.5 ± 0.3 | 35.8 ± 0.3 |
| 8 | [38.2 ± 0.6]\* | 36.5 ± 0.6 | 36.5 ± 0.5 | 36.4 ± 0.3 | 36.0 ± 0.6 | 36.4 ± 0.5 | 35.9 ± 0.5 | 36.6 ± 0.6 | 36.6 ± 0.4 | 36.1 ± 0.3 |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 36.9 ± 0.6 | 36.0 ± 1.0 | 36.4 ± 0.6 | 35.6 ± 1.0 | 35.3 ± 0.6 | 36.1 ± 1.1 | 35.7 ± 0.7 | 35.8 ± 0.7 | 36.5 ± 0.3 | 36.0 ± 0.9 |
| 10 | 37.3 ± 0.1 | 36.6 ± 0.4 | 37.0 ± 0.4 | 36.3 ± 0.3 |  36.2 ± 0.3\* | 36.7 ± 0.6 | 36.2 ± 0.6 | 36.3 ± 0.3 | 36.9 ± 0.6 | 36.4 ± 0.2 |
| 12 | 37.1 ± 0.3 | 36.4 ± 0.7 | 37.1 ± 0.4 |  [36.7 ± 0.7] | [36.4 ± 0.5]\* | [37.1 ± 0.4] | [36.8 ± 0.6] | 36.4 ± 0.4 | 36.7 ± 0.6 | 36.7 ± 0.4 |
|  |  |  |  |  | **Females** |  |  |  |  |  |
| Exposure | Day 0 | Day 1 | Day 1 | Day 1 | Day 3 | Day 3 | Day 3 | Day 5 | Day 5 | Day 5 |
| (W/kg) | 0hr | 1hr | 5hr | 20hr | 49hr | 53hr | 68hr | 97hr | 101hr | 116hr |
| 0 | 36.8 ± 0.5 | 36.6 ± 0.3 | 36.6 ± 0.3 | 36.3 ± 0.4 | 36.3 ± 0.6 | 36.8 ± 0.7 | 36.0 ± 0.4 | 36.4 ± 0.3 | 36.7 ± 0.4 | 36.4 ± 0.7 |
| 4 | 37.4 ± 0.8 | 37.3 ± 0.5 | 36.8 ± 0.2 | 36.3 ± 0.7 | 36.5 ± 0.5 | 36.9 ± 0.5 | 36.2 ± 0.3 | 36.7 ± 0.6 | 36.9 ± 0.6 | 36.4 ± 0.5 |
| 6 |  37.6 ± 0.3 | 36.9 ± 0.3 | 37.0 ± 0.3\* | 36.5 ± 0.5 | 36.7 ± 0.3 | 36.7 ± 0.3 |  36.8 ± 0.7\* | 37.1 ± 0.6 | 36.7 ± 0.2b | 36.5 ± 0.4b |
| 8  | [38.9 ± 0.4]\* | [37.6 ± 0.4]\* | 37.4 ± 0.3\* | 37.1 ± 0.4\* | 36.9 ± 0.3 | 37.4 ± 0.3 | [37.1 ± 0.4]\* | 37.3 ± 0.3\* | 37.4 ± 0.2\* | 36.9 ± 0.3 |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 | 37.1 ± 0.4 | 37.0 ± 0.4 | 36.8 ± 0.6 | 36.5 ± 0.4 | 36.5 ± 0.5 | 36.7 ± 0.3b | 36.5 ± 0.4 | 36.4 ± 0.4 | 37.1 ± 0.4 | 36.3 ± 0.4 |
| 10 | 37.1 ± 1.5 | 37.4 ± 0.8 | 37.7 ± 1.0 | 36.7 ± 0.9 | 37.1 ± 1.2 | 37.3 ± 0.6 | 37.2 ± 0.5 | 36.9 ± 0.6 | 37.3 ± 0.5 | 36.9 ± 0.3 |
| 12 | 37.6 ± 0.8 | 37.4 ± 0.4 | 37.5 ± 0.1 | 36.6 ± 0.4 | 36.9 ± 0.4 | 37.3 ± 0.5 | 36.9 ± 0.3 | 37.0 ± 0.3 | 37.6 ± 0.3 |  37.1 ± 0.4\* |

CDMA=Code Division Multiple Access; RFR=radiofrequency radiation; W/kg=Watts per kilogram.

\*Significantly different from time-matched control group (P<0.05).

[ ] Increase in group mean body temperature was ≥1°C compared to time-matched control group.

aGroup mean body temperature ± standard deviation (n=5 per group) in rats exposed to GSM RFR for approximately 9 hours a day for 5 days.

bReduced number of animals (n=4) in group for this time point.

**Supplemental Table 11. Body temperature in Sprague Dawley rats exposed to GSM RFR (Days 2 and 4)a**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Young Males** |  | **Aged Males** |  |
| Exposure | Day 2 | Day 4 | Day 2 | Day 4 |
| (W/kg) | 23hr | 71hr | 23hr | 71hr |
| 0 | 36.9 ± 0.3 | 36.9 ± 0.4 | 37.0 ± 0.5 | 36.6 ± 0.5 |
| 4 | 36.9 ± 0.3 | 36.8 ± 0.4 | 35.5 ± 0.3\* | 36.1 ± 0.6 |
| 6 | 36.9 ± 0.2 | 36.9 ± 0.4 | 35.9 ± 1.0\* | 36.2 ± 0.6 |
| 8 | 37.3 ± 0.5 | 36.8 ± 0.4 | 35.1 ± 0.4\* | 36.5 ± 1.3 |
|  |  |  |  |  |
| 0 | 36.7 ± 0.5 | 37.5 ± 0.4 | ND | ND |
| 10b | 37.1 ± 0.2 | 36.9 ± 0.2\* | ND | ND |
| 12b | 36.6 ± 0.2 | 36.6 ± 0.4\* | ND | ND |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Young Females** |  | **Aged Females** |  | **Pregnant Females** |  |
| Exposure | Day 2 | Day 4 | Day 2 | Day 4 | Day 2 | Day 4 |
| (W/kg) | 23hr | 71hr | 23hr | 71hr | 23hr | 71hr |
| 0 | 37.4 ± 0.4 | 37.1 ± 0.5 | 37.0 ± 0.3 | 36.8 ± 0.1 | 36.8 ± 0.3 | 36.6 ± 0.4 |
| 4 | 37.1 ± 0.2 | 37.0 ± 0.2 | 36.8 ± 0.6 | 36.9 ± 0.9 | 36.6 ± 0.5 | 36.4 ± 0.1 |
| 6 |  |  | 36.7 ± 0.7 | 36.8 ± 0.5 | 36.5 ± 0.4 | 36.8 ± 0.3 |
| 8 | 36.9 ± 0.4 | 36.6 ± 0.3 | 36.7 ± 0.1 | 36.4 ± 0.7 | 36.1 ± 0.5 | 36.1 ± 0.3\* |
|  |  |  |  |  |  |  |
| 0 | 36.9 ± 0.5 | 37.0 ± 0.4 | 36.8 ± 0.4 | 36.5 ± 0.4 | 37.8 ± 0.2 | 38.0 ± 0.2 |
| 10b | 36.5 ± 0.4 | 36.7 ± 0.5 | 36.1 ± 0.6\* | 35.8 ± 0.3\* | 36.8 ± 0.3\* | 37.1 ± 0.2\* |
| 12 |  |  |  |  | 35.3 ± 0.6\* | 36.2 ± 0.2\* |
|  |  |  |  |  |  |  |
| 0 | 36.9 ± 0.2 | 37.2 ± 0.3 | ND | ND |  |  |
| 12b | 36.6 ± 0.3 | 36.6 ± 0.4\* | ND | ND |  |  |

GSM=Global System for Mobile Communication; ND=not determined; RFR=radiofrequency radiation; W/kg=Watts per kilogram.

\*Significantly different from time-matched control group (P<0.05).

aValues represents group mean body temperature (°C) ± standard deviation in rats (n=5) exposed to

GSM RFR for 9 hours and 10 minutes per day for 5 days. Measurements were recorded 3 to 3 ½ hours

after end of exposure and 30-60 minutes prior to resuming exposure.

bExposures of 10 and 12 W/kg were conducted at separate times from others since power requirements of facility were inadequate for simultaneous exposures.

**Supplemental Table 12. Body temperature in Sprague Dawley rats exposed to CDMA RFR (Days 2 and 4)a**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Young Males** |  | **Aged Males** |  |  |  |
| Exposure | Day 2 | Day 4 | Day 2 | Day 4 |  |  |
| (W/kg) | 23hr | 71hr | 23hr | 71hr |  |  |
| 0 | 36.9 ± 0.4 | 36.8 ± 0.3 | 37.4 ± 0.5 | 37.0 ± 0.4 |  |  |
| 4 | 36.5 ± 0.3 | 36.6 ± 0.4 | 36.5 ± 0.5\* | 35.6 ± 0.3\* |  |  |
| 6 | 36.7 ± 0.5 | 36.6 ± 0.1 | 36.6 ± 0.2\* | 36.3 ± 0.4\* |  |  |
| 8 | 35.8 ± 2.1 | 35.7 ± 2.5b | 35.2 ± 0.3\* | 35.7 ± 0.5\* |  |  |
|  |  |  |  |  |  |  |
| 0 | 37.2 ± 0.3 | 37.4 ± 0.5 | 38.0 ± 0.5 |  |  |  |
| 10c | 37.3 ± 0.7 | 37.4 ± 0.6 | 36.6 ± 1.2\* |  |  |  |
| 12c | 37.1 ± 0.6 | 37.4 ± 0.2 | ND |  |  |  |
|  | **Young Females** |  | **Aged Females** |  | **Pregnant**  | **Females** |
| Exposure | Day 2 | Day 4 | Day 2 | Day 4 | Day 2 | Day 4 |
| (W/kg) | 23hr | 71hr | 23hr | 71hr | 23hr | 71hr |
| 0 | 36.7 ± 0.4 | 36.9 ± 0.2 | 37.2 ± 0.5 | 37.0 ± 0.8 | 37.5 ± 0.3 | ND |
| 4 | 36.8 ± 0.4 | 37.3 ± 0.3 | 37.3 ± 0.7 | 36.0 ± 0.3\* | 37.2 ± 0.1 | ND |
| 6 | 36.8 ± 0.2 | 36.6 ± 0.2 | 37.0 ± 0.4 | 36.1 ± 0.6 | 37.0 ± 0.5 | ND |
| 8 | 37.2 ± 0.7b | 37.3 ± 1.1b | 36.6 ± 0.6 | 36.0 ± 0.3\* | 36.8 ± 0.4\* | ND |
|  |  |  |  |  |  |  |
| 0 | 37.8 ± 0.2 | 37.2 ± 0.3 | 37.1 ± 0.7 | 36.7 ± 0.4 | 37.4 ± 0.5 | 37.2 ± 0.7 |
| 10 | 37.3 ± 0.5 | 37.4 ± 0.5 | 36.0 ± 0.4\* | 36.1 ± 0.7 | 36.2 ± 0.4\* | 35.8 ± 0.5\* |
| 12 | 37.1 ± 0.3\* | 37.2 ± 0.6 | 35.6 ± 0.5\* | 35.4 ± 0.8\* | 35.6 ± 0.5\* | 36.1 ± 0.4\* |

CDMA=Code Division Multiple Access; ND=not determined; RFR=radiofrequency radiation; W/kg=Watts per kilogram.

\*Significantly different from time-matched control group (P<0.05).

aValues represents group mean body temperature (°C) ± standard deviation in rats (n=5) exposed to

CDMA RFR for 9 hours and 10 minutes per day for 5 days. Measurements were recorded 3 to 3 ½ hours

after end of exposure and 30-60 minutes prior to resuming exposure.

bReduced number of animals (n=4) in group for this time point.

**Supplemental Table 13. Body temperature in B6C3F1 mice exposed to GSM RFR (Days 2 and 4)a**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Young Males** |  | **Aged Males** |  |
| Exposure | Day 2 | Day 4 | Day 2 | Day 4 |
| (W/kg) | 23hr | 71hr | 23hr | 71hr |
| 0 | 37.4 ± 0.6a | 36.5 ± 0.6 | 37.8 ± 0.4 | 37.8 ± 0.2 |
| 2 | ND | ND | 37.3 ± 0.5 | 38.0 ± 0.4 |
| 4 | 36.9 ± 0.7 | 35.7 ± 0.8 | ND | ND |
| 6 | 37.5 ± 0.7 | 37.0 ± 0.4 | 37.6 ± 2.4 | 38.7 ± 2.2 |
| 8 | 37.6 ± 0.7 | 36.7 ± 0.6 | 37.1 ± 0.4 | 37.8 ± 0.3 |
|  |  |  |  |  |
| 0 | 36.5 ± 0.8 | 35.7 ± 0.5 | 36.0 ± 0.8 | 36.0 ± 0.3 |
| 10b | 36.4 ± 0.7 | 36.1 ± 0.5 | 35.6 ± 0.7 | 35.9 ± 0.6 |
| 12b | 36.6 ± 0.7 | 36.3 ± 0.4 | 35.9 ± 0.5 | 35.8 ± 0.7 |
|  |  |  |  |  |
|  | **Young Females** |  | **Aged Females** |  |
| Exposure | Day 2 | Day 4 | Day 2 | Day 4 |
| (W/kg) | 23hr | 71hr | 23hr | 71hr |
| 0 | 38.1 ± 0.3 | 37.2 ± 0.5 | 38.2 ± 0.6 | 38.5 ± 0.6 |
| 2 | ND | ND | 37.9 ± 1.0 | 38.4 ± 0.8 |
| 4 | 38.1 ± 0.3 | 37.6 ± 0.4 | ND | ND |
| 6 | 37.6 ± 0.5 | 37.1 ± 0.3 | 37.5 ± 0.4 | 38.1 ± 0.3 |
| 8 | 37.4 ± 0.4\* | 37.1 ± 0.4 | 37.9 ± 0.7 | 38.2 ± 0.5 |
|  |  |  |  |  |
| 0 | 36.7 ± 0.4 | 36.7 ± 0.7 | 37.0 ± 0.6 | 37.1 ± 0.6 |
| 10 | 36.9 ± 0.6 | 37.0 ± 0.6 | 36.3 ± 1.1 | 36.5 ± 1.1 |
| 12 | 36.3 ± 0.8 | 37.0 ± 0.6 | 36.1 ± 0.4 | 36.3 ± 0.1 |

GSM=Global System for Mobile Communication; ND=not determined; RFR=radiofrequency radiation; W/kg=Watts per kilogram.

\*Significantly different from time-matched control group (P<0.05).

aValues represents group mean body temperature (°C) ± standard deviation in mice (n=5) exposed to

GSM RFR for 9 hours and 10 minutes per day for 5 days. Measurements were recorded 3 to 3 ½ hours

after end of exposure and 30-60 minutes prior to resuming exposure.

**Supplemental Table 14. Body temperature in B6C3F1 mice exposed to CDMA RFR (Days 2 and 4)a**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Young Males** |  | **Aged Males** |  |
| Exposure | Day 2 | Day 4 | Day 2 | Day 4 |
| (W/kg) | 23hr | 71hr | 23hr | 71hr |
| 0 | 36.1 ± 0.6a | 36.2 ± 0.7 | 36.8 ± 0.2 | 37.9 ± 0.2 |
| 4 | 35.4 ± 1.8 | 35.4 ± 1.6 | 36.9 ± 0.5 | 37.9 ± 0.3 |
| 6 | 36.9 ± 0.9 | 36.1 ± 0.5 | 36.5 ± 0.7 | 37.9 ± 0.3 |
| 8 | 36.3 ± 0.6 | 36.0 ± 0.3 | 37.0 ± 0.6 | 37.9 ± 0.3 |
|  |  |  |  |  |
| 0 | 37.5 ± 0.5 | 36.3 ± 0.4 | 35.8 ± 0.6 | 35.7 ± 0.9 |
| 10c | 37.1 ± 0.2 | 36.6 ± 0.5 | 36.3 ± 0.4 | 35.9 ± 0.4 |
| 12c | 37.7 ± 0.8 | 36.2 ± 0.7 | 35.1 ± 0.4 | 35.4 ± 0.4 |
|  | **Young Females** |  | **Aged Females** |  |
| Exposure | Day 2 | Day 4 | Day 2 | Day 4 |
| (W/kg) | 23hr | 71hr | 23hr | 71hr |
| 0 | 37.0 ± 0.3 | 36.6 ± 0.3 | 37.0 ± 0.4 | 37.8 ± 0.4 |
| 4 | 36.7 ± 0.3b | 36.6 ± 0.4b | 37.4 ± 0.8 | 38.3 ± 0.6 |
| 6 | 37.1 ± 0.5 | 36.6 ± 0.5 | 37.1 ± 0.4 | 37.9 ± 0.2 |
| 8 | 37.4 ± 0.5 | 36.2 ± 0.4 | 37.4 ± 0.5 | [38.8 ± 0.4]\* |
|  |  |  |  |  |
| 0 | 38.0 ± 0.3 | 37.2 ± 0.4 | 36.7 ± 0.5 | 36.1 ± 0.3 |
| 10 | 37.9 ± 0.3 | 37.5 ± 0.5 | 36.8 ± 1.8 | 36.3 ± 1.2 |
| 12 | 37.7 ± 0.3 | 37.2 ± 0.6 | 36.5 ± 0.8 | 36.4 ± 0.9 |

CDMA=Code Division Multiple Access; RFR=radiofrequency radiation; W/kg=Watts per kilogram.

\*Significantly different from time-matched control group (P<0.05).

[ ] Increase in group mean body temperature was ≥1°C compared to time-matched control group.

aValues represents group mean body temperature (°C) ± standard deviation in mice (n=5) exposed to

CDMA RFR for 9 hours and 10 minutes per day for 5 days. Measurements were recorded 3 to 3 ½ hours

after end of exposure and 30-60 minutes prior to resuming exposure.

bReduced number of animals (n=4) in group for this time point.