

**Experiment Number:** 20105 - 59

**Test Type:** CHRONIC

**Route:** Whole Body Exposure

**Species/Strain:** RATS/HSD

**P11: STATISTICAL ANALYSIS OF SURVIVAL DATA**

Cell Phone Radiation: GSM

**CAS Number:** CELLPRADGSM

**Date Report Requested:** 01/02/2018

**Time Report Requested:** 11:58:55

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

**Lab:** IIT

Final 2 - Data Changes through 12-15-17 GSM Rats Core Only

**NTP Study Number:**

C20105

**Lock Date:**

12/29/2015

**Cage Range:**

ALL

**Date Range:**

ALL

**Reasons For Removal:**

25022 ACCK

25021 TSAC

25020 NATD

25019 MSAC

**Removal Date Range:**

ALL

**Treatment Groups:**

Include ALL

**Study Gender:**

Both

**TDMSE Version:**

3.0.2.3\_002

**PWG Approval Date:**

NONE

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MALE RATS

FIRST TERMINAL SACRIFICE AT 730 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = 0.0W/kg(GSM)chr

TOTAL 90		UNCENSORED DEATHS 64				CENSORED DEATHS 1				TERMINAL 25			
UNCENSORED DEATH DAYS													
212	248	294	440	496	498	510	510	527	541	552	555	563	565
567	569	577	580	580	582	584	590	595	600	604	604	610	616
624	624	629	630	641	642	645	648	654	655	657	658	659	662
662	662	663	663	666	671	677	681	685	687	688	691	691	704
705	705	711	715	715	719	721	722						
CENSORED DEATH DAYS													
562													

DOSE = 1.5W/kg(GSM)chr

TOTAL 90		UNCENSORED DEATHS 45				CENSORED DEATHS 0				TERMINAL 45			
UNCENSORED DEATH DAYS													
291	309	320	425	486	510	518	530	531	562	576	582	591	599
606	614	615	636	638	639	649	655	655	656	657	665	670	673
683	687	687	694	696	702	703	705	709	713	715	715	718	720
723	723	728											
CENSORED DEATH DAYS													
None													

DOSE = 3.0W/kg(GSM)chr

TOTAL 90		UNCENSORED DEATHS 40				CENSORED DEATHS 0				TERMINAL 50			
UNCENSORED DEATH DAYS													
454	501	505	526	527	537	539	550	570	579	594	610	614	614
625	628	636	636	636	645	649	661	663	677	677	693	699	699
700	708	709	716	717	717	718	722	722	724	727	728		
CENSORED DEATH DAYS													
None													

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**MALE RATS**

FIRST TERMINAL SACRIFICE AT 730 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

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**DOSE = 6.0W/kg(GSM)chr**

TOTAL 90

UNCENSORED DEATHS 29

CENSORED DEATHS 1

TERMINAL 60

UNCENSORED DEATH DAYS

247	384	397	443	472	489	500	534	544	554	582	595	596	597
619	621	631	638	638	657	670	688	694	702	714	716	716	719
719													

CENSORED DEATH DAYS

674

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MALE RATS

FIRST TERMINAL SACRIFICE AT 730 DAYS

KAPLAN-MEIER SURVIVAL PROBABILITY ESTIMATES (%)										
DOSE	TIME (DAYS)									
	90	180	270	365	425	485	545	605	665	730(A)
0.0W/kg(GSM)chr	100.0	100.0	97.8	96.7	96.7	95.6	88.9	70.9	48.4	28.1
1.5W/kg(GSM)chr	100.0	100.0	100.0	96.7	95.6	95.6	90.0	84.4	71.1	50.0
3.0W/kg(GSM)chr	100.0	100.0	100.0	100.0	100.0	98.9	92.2	87.8	74.4	55.6
6.0W/kg(GSM)chr	100.0	100.0	98.9	98.9	96.7	94.4	90.0	84.4	77.8	67.6

(A) FIRST TERMINAL SACRIFICE

(B) THE FIRST ENTRY IS THE TREND TEST (TARONE, 1975) RESULT. SUBSEQUENT ENTRIES ARE THE RESULTS OF PAIRWISE TESTS (COX, 1972). NEGATIVE TRENDS ARE INDICATED BY "N".

(C) MEAN OF ALL UNCENSORED DEATHS PRIOR TO TERMINAL SACRIFICE

(D) MEAN OF ALL DEATHS (UNCENSORED, CENSORED, TERMINAL SACRIFICE)

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Lab: IIT

**MALE RATS**

FIRST TERMINAL SACRIFICE AT 730 DAYS

<b>SURVIVAL SUMMARY STATISTICS</b>				
<b>DOSE</b>	0.0W/kg(GSM)chr	1.5W/kg(GSM)chr	3.0W/kg(GSM)chr	6.0W/kg(GSM)chr
<b>SURVIVAL AT END OF STUDY</b> (KAPLAN-MEIER)	28.1%	50.0%	55.6%	67.6%
<b>SIGNIFICANCE (B)</b> (LIFE TABLE)	P<0.001N	P=0.002N	P<0.001N	P<0.001N
<b>MEAN DAY OF NATURAL DEATHS (C)</b> (STANDARD ERROR)	609.4 (12.9)	619.5 (16.6)	638.8 (12.0)	588.8 (21.9)
<b>MEAN LIFE SPAN (D)</b> (STANDARD ERROR)	642.4 (10.8)	674.8 (10.1)	689.5 (7.2)	683.9 (9.9)

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(C) MEAN OF ALL UNCENSORED DEATHS PRIOR TO TERMINAL SACRIFICE

(D) MEAN OF ALL DEATHS (UNCENSORED, CENSORED, TERMINAL SACRIFICE)

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Lab: IIT

FEMALE RATS

FIRST TERMINAL SACRIFICE AT 737 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

DOSE = 0.0W/kg(GSM)chr

TOTAL 90                      UNCENSORED DEATHS 41                      CENSORED DEATHS 1                      TERMINAL 48

UNCENSORED DEATH DAYS

268	353	464	464	489	489	492	492	493	508	513	524	531	531
531	547	550	550	550	565	578	608	614	622	622	629	634	636
641	656	660	662	662	662	668	690	707	709	711	712	719	

CENSORED DEATH DAYS

202

DOSE = 1.5W/kg(GSM)chr

TOTAL 90                      UNCENSORED DEATHS 37                      CENSORED DEATHS 0                      TERMINAL 53

UNCENSORED DEATH DAYS

123	332	464	464	480	493	493	493	531	545	545	576	578	584
597	602	622	626	631	650	654	657	682	690	696	696	699	699
699	699	711	713	716	718	722	731	732					

CENSORED DEATH DAYS

None

DOSE = 3.0W/kg(GSM)chr

TOTAL 90                      UNCENSORED DEATHS 42                      CENSORED DEATHS 0                      TERMINAL 48

UNCENSORED DEATH DAYS

142	383	383	383	439	450	450	464	464	482	489	489	492	493
545	545	578	578	579	593	606	619	621	628	634	636	640	656
661	662	669	669	671	695	699	706	713	720	720	724	727	727

CENSORED DEATH DAYS

None

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**FEMALE RATS**

FIRST TERMINAL SACRIFICE AT 737 DAYS

INDIVIDUAL SURVIVAL TIMES (DAYS)

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**DOSE = 6.0W/kg(GSM)chr**

TOTAL 90

UNCENSORED DEATHS 33

CENSORED DEATHS 0

TERMINAL 57

UNCENSORED DEATH DAYS

283	290	299	300	370	443	487	489	514	545	545	548	565	593
594	600	622	624	624	641	645	651	656	658	669	669	669	687
697	702	720	720	727									

CENSORED DEATH DAYS

None

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FEMALE RATS

FIRST TERMINAL SACRIFICE AT 737 DAYS

KAPLAN-MEIER SURVIVAL PROBABILITY ESTIMATES (%)										
DOSE	TIME (DAYS)									
	90	180	270	365	425	485	545	605	665	737(A)
0.0W/kg(GSM)chr	100.0	100.0	98.9	97.8	97.8	95.5	83.1	76.4	61.8	53.9
1.5W/kg(GSM)chr	100.0	98.9	98.9	97.8	97.8	94.4	87.8	82.2	75.6	58.9
3.0W/kg(GSM)chr	100.0	98.9	98.9	98.9	95.6	88.9	82.2	77.8	66.7	53.3
6.0W/kg(GSM)chr	100.0	100.0	100.0	95.6	94.4	93.3	87.8	82.2	73.3	63.3

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FIRST TERMINAL SACRIFICE AT 737 DAYS

<b>SURVIVAL SUMMARY STATISTICS</b>				
<b>DOSE</b>	0.0W/kg(GSM)chr	1.5W/kg(GSM)chr	3.0W/kg(GSM)chr	6.0W/kg(GSM)chr
<b>SURVIVAL AT END OF STUDY</b> (KAPLAN-MEIER)	53.9%	58.9%	53.3%	63.3%
<b>SIGNIFICANCE (B)</b> (LIFE TABLE)	P=0.300N	P=0.412N	P=1.000	P=0.226N
<b>MEAN DAY OF NATURAL DEATHS (C)</b> (STANDARD ERROR)	578.2 (15.5)	603.9 (20.9)	576.8 (19.5)	571.1 (23.2)
<b>MEAN LIFE SPAN (D)</b> (STANDARD ERROR)	658.7 (12.1)	682.3 (11.0)	662.2 (12.4)	676.2 (12.0)

\*\*\* END OF REPORT \*\*\*

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(D) MEAN OF ALL DEATHS (UNCENSORED, CENSORED, TERMINAL SACRIFICE)