

**Experiment Number:** 99930-94  
**Test Type:** SPECIAL STUDY  
**Route:** DOSED FEED  
**Species/Strain:** Rat/CD

**P11: STATISTICAL ANALYSIS OF SURVIVAL DATA**  
**Test Compound:** Endocrine disruptor (Genistein)  
**CAS Number:** 446-72-0

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 17:21:53  
**First Dose M/F:** NA / NA  
**Lab:** NCTR

<b>C Number:</b>	MG96005
<b>Lock Date:</b>	Not Entered.
<b>Cage Range:</b>	All
<b>Date Range:</b>	All
<b>Reasons For Removal:</b>	All
<b>Removal Date Range:</b>	All
<b>Treatment Groups:</b>	All
<b>Study Gender:</b>	Both
<b>PWG Approval Date</b>	NONE

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**Lab:** NCTR

**Male RAT**  
**FIRST TERMINAL SACRIFICE AT 735 DAYS**  
**INDIVIDUAL SURVIVAL TIMES (DAYS)**

<b>DOSE = F1 0PPM</b>													
TOTAL 54			UNCENSORED DEATHS 18				CENSORED DEATHS 0			TERMINAL 36			
<b>UNCENSORED DEATH DAYS</b>													
57	227	275	364	433	436	475	485	569	572	578	598	669	682
697	712	727	730										
<b>CENSORED DEATH DAYS</b>													
none													
<b>DOSE = F1 5PPM</b>													
TOTAL 50			UNCENSORED DEATHS 9				CENSORED DEATHS 0			TERMINAL 41			
<b>UNCENSORED DEATH DAYS</b>													
296	303	429	453	525	602	617	634	688					
<b>CENSORED DEATH DAYS</b>													
none													
<b>DOSE = F1 5PPM/CTL</b>													
TOTAL 50			UNCENSORED DEATHS 14				CENSORED DEATHS 0			TERMINAL 36			
<b>UNCENSORED DEATH DAYS</b>													
406	486	565	584	627	655	665	669	689	713	713	724	731	734
<b>CENSORED DEATH DAYS</b>													
none													
<b>DOSE = F1 100PPM</b>													
TOTAL 50			UNCENSORED DEATHS 7				CENSORED DEATHS 0			TERMINAL 43			
<b>UNCENSORED DEATH DAYS</b>													
213	474	589	593	617	619	670							
<b>CENSORED DEATH DAYS</b>													
none													

- (A) FIRST TERMINAL SACRIFICE
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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:** NCTR

**Male RAT**  
**FIRST TERMINAL SACRIFICE AT 735 DAYS**  
**INDIVIDUAL SURVIVAL TIMES (DAYS)**

<b>DOSE = F1 100PPM/CTL</b>													
TOTAL 50			UNCENSORED DEATHS 16				CENSORED DEATHS 0				TERMINAL 34		
<b>UNCENSORED DEATH DAYS</b>													
267	350	362	456	603	605	610	627	631	644	648	676	678	702
703	722												
<b>CENSORED DEATH DAYS</b>													
none													
<b>DOSE = F1 500PPM</b>													
TOTAL 50			UNCENSORED DEATHS 19				CENSORED DEATHS 0				TERMINAL 31		
<b>UNCENSORED DEATH DAYS</b>													
206	359	528	564	569	662	665	669	675	685	689	705	710	711
712	729	730	731	734									
<b>CENSORED DEATH DAYS</b>													
none													
<b>DOSE = F1 500PPM/CTL</b>													
TOTAL 50			UNCENSORED DEATHS 12				CENSORED DEATHS 0				TERMINAL 38		
<b>UNCENSORED DEATH DAYS</b>													
449	534	568	588	674	675	698	699	705	711	721	727		
<b>CENSORED DEATH DAYS</b>													
none													

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**Lab:** NCTR

Male RAT  
 FIRST TERMINAL SACRIFICE AT 735 DAYS

KAPLAN-MEIER SURVIVAL PROBABILITY ESTIMATES (%)

DOSE	TIME (DAYS)									
	90	180	270	365	425	485	545	605	665	735(A)
F1 0PPM	98.1	98.1	96.3	92.6	92.6	85.2	85.2	77.8	77.8	66.7
F1 5PPM	100.0	100.0	100.0	96.0	96.0	92.0	90.0	88.0	84.0	82.0
F1 5PPM/CTL	100.0	100.0	100.0	100.0	98.0	98.0	96.0	92.0	86.0	72.0
F1 100PPM	100.0	100.0	98.0	98.0	98.0	96.0	96.0	92.0	88.0	86.0
F1 100PPM/CTL	100.0	100.0	98.0	94.0	94.0	92.0	92.0	88.0	78.0	68.0
F1 500PPM	100.0	100.0	98.0	96.0	96.0	96.0	94.0	90.0	86.0	62.0
F1 500PPM/CTL	100.0	100.0	100.0	100.0	100.0	98.0	96.0	92.0	92.0	76.0

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**Lab:** NCTR

Male RAT  
 FIRST TERMINAL SACRIFICE AT 735 DAYS

SURVIVAL SUMMARY STATISTICS

DOSE	F1 0PPM	F1 5PPM	F1 5PPM/CTL	F1 100PPM
<b>SURVIVAL AT END OF STUDY</b> (KAPLAN-MEIER)	66.7%	82.0%	72.0%	86.0%
<b>SIGNIFICANCE (B)</b> (LIFE TABLE)	P=0.549	P=0.124N	P=0.540N	P=0.036N
<b>MEAN DAY OF NATURAL DEATHS (C)</b> (STANDARD ERROR)	515.9 (45.0)	505.2 (47.9)	640.1 (26.3)	539.3 (58.9)
<b>MEAN LIFE SPAN (D)</b> (STANDARD ERROR)	662.0 (20.4)	693.6 (15.1)	708.4 (9.4)	707.6 (12.4)

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

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**Test Type:** SPECIAL STUDY  
**Route:** DOSED FEED  
**Species/Strain:** Rat/CD

**P11: STATISTICAL ANALYSIS OF SURVIVAL DATA**  
**Test Compound:** Endocrine disruptor (Genistein)  
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**Lab:** NCTR

Male RAT  
FIRST TERMINAL SACRIFICE AT 735 DAYS

SURVIVAL SUMMARY STATISTICS

DOSE	F1 100PPM/CTL	F1 500PPM	F1 500PPM/CTL
<b>SURVIVAL AT END OF STUDY</b> (KAPLAN-MEIER)	68.0%	62.0%	76.0%
<b>SIGNIFICANCE (B)</b> (LIFE TABLE)	P=0.946N	P=0.944	P=0.303N
<b>MEAN DAY OF NATURAL DEATHS (C)</b> (STANDARD ERROR)	580.3 (35.3)	633.3 (32.0)	645.8 (25.8)
<b>MEAN LIFE SPAN (D)</b> (STANDARD ERROR)	685.5 (15.1)	696.4 (13.9)	713.6 (8.1)

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Experiment Number: 99930-94  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P11: STATISTICAL ANALYSIS OF SURVIVAL DATA**  
 Test Compound: Endocrine disruptor (Genistein)  
 CAS Number: 446-72-0

Date Report Requested: 10/22/2014  
 Time Report Requested: 17:21:53  
 First Dose M/F: NA / NA  
 Lab: NCTR

**Female RAT**  
**FIRST TERMINAL SACRIFICE AT 733 DAYS**  
**INDIVIDUAL SURVIVAL TIMES (DAYS)**

DOSE = F1		0PPM	UNCENSORED DEATHS 28					CENSORED DEATHS 0			TERMINAL 26		
TOTAL 54													
<b>UNCENSORED DEATH DAYS</b>													
224	331	367	425	436	514	514	583	607	622	625	626	626	626
628	646	648	654	656	669	698	698	698	710	715	717	723	731
<b>CENSORED DEATH DAYS</b>													
none													
DOSE = F1		5PPM	UNCENSORED DEATHS 22					CENSORED DEATHS 0			TERMINAL 28		
TOTAL 50													
<b>UNCENSORED DEATH DAYS</b>													
111	528	551	560	567	578	597	605	620	625	628	631	640	656
670	681	686	708	710	710	716	730						
<b>CENSORED DEATH DAYS</b>													
none													
DOSE = F1		5PPM/CTL	UNCENSORED DEATHS 18					CENSORED DEATHS 0			TERMINAL 32		
TOTAL 50													
<b>UNCENSORED DEATH DAYS</b>													
325	439	451	543	581	620	625	627	634	658	667	669	673	673
688	692	709	724										
<b>CENSORED DEATH DAYS</b>													
none													
DOSE = F1		100PPM	UNCENSORED DEATHS 25					CENSORED DEATHS 0			TERMINAL 25		
TOTAL 50													
<b>UNCENSORED DEATH DAYS</b>													
268	401	465	486	520	534	545	565	603	604	626	635	638	638
653	654	657	657	658	668	691	711	721	731	731			
<b>CENSORED DEATH DAYS</b>													
none													

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**Female RAT**  
**FIRST TERMINAL SACRIFICE AT 733 DAYS**  
**INDIVIDUAL SURVIVAL TIMES (DAYS)**

<b>DOSE = F1 100PPM/CTL</b>													
TOTAL 50			UNCENSORED DEATHS 17				CENSORED DEATHS 0				TERMINAL 33		
<b>UNCENSORED DEATH DAYS</b>													
410	423	538	577	619	632	654	658	670	670	683	683	698	703
709	720	732											
<b>CENSORED DEATH DAYS</b>													
none													
<b>DOSE = F1 500PPM</b>													
TOTAL 49			UNCENSORED DEATHS 26				CENSORED DEATHS 0				TERMINAL 22		
<b>UNCENSORED DEATH DAYS</b>													
330	345	359	408	512	550	565	568	598	605	618	618	626	630
632	644	660	660	668	675	678	679	688	688	694	726		
<b>CENSORED DEATH DAYS</b>													
none													
<b>DOSE = F1 500PPM/CTL</b>													
TOTAL 50			UNCENSORED DEATHS 27				CENSORED DEATHS 0				TERMINAL 23		
<b>UNCENSORED DEATH DAYS</b>													
376	418	507	517	520	540	587	595	600	602	614	643	648	648
650	657	661	669	671	673	676	688	695	696	704	705	723	
<b>CENSORED DEATH DAYS</b>													
none													

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**Female RAT**  
**FIRST TERMINAL SACRIFICE AT 733 DAYS**

**KAPLAN-MEIER SURVIVAL PROBABILITY ESTIMATES (%)**

DOSE	TIME (DAYS)									
	90	180	270	365	425	485	545	605	665	733(A)
F1 0PPM	100.0	100.0	98.1	96.3	92.6	90.7	87.0	85.2	64.8	48.1
F1 5PPM	100.0	98.0	98.0	98.0	98.0	98.0	96.0	84.0	72.0	56.0
F1 5PPM/CTL	100.0	100.0	100.0	98.0	98.0	94.0	92.0	90.0	80.0	64.0
F1 100PPM	100.0	100.0	98.0	98.0	96.0	94.0	86.0	80.0	62.0	50.0
F1 100PPM/CTL	100.0	100.0	100.0	100.0	96.0	96.0	94.0	92.0	84.0	66.0
F1 500PPM	100.0	100.0	100.0	93.9	91.8	91.8	89.8	79.6	63.3	46.9
F1 500PPM/CTL	100.0	100.0	100.0	100.0	96.0	96.0	88.0	80.0	66.0	46.0

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Female RAT  
 FIRST TERMINAL SACRIFICE AT 733 DAYS

SURVIVAL SUMMARY STATISTICS

DOSE	F1 0PPM	F1 5PPM	F1 5PPM/CTL	F1 100PPM
<b>SURVIVAL AT END OF STUDY</b> (KAPLAN-MEIER)	48.1%	56.0%	64.0%	50.0%
<b>SIGNIFICANCE (B)</b> (LIFE TABLE)	P=0.075	P=0.516N	P=0.144N	P=0.970N
<b>MEAN DAY OF NATURAL DEATHS (C)</b> (STANDARD ERROR)	597.0 (24.7)	614.0 (27.1)	611.0 (25.2)	602.4 (22.0)
<b>MEAN LIFE SPAN (D)</b> (STANDARD ERROR)	662.5 (15.7)	680.6 (14.5)	689.1 (12.2)	667.7 (14.3)

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Female RAT  
FIRST TERMINAL SACRIFICE AT 733 DAYS

SURVIVAL SUMMARY STATISTICS

DOSE	F1 100PPM/CTL	F1 500PPM	F1 500PPM/CTL
<b>SURVIVAL AT END OF STUDY</b> (KAPLAN-MEIER)	66.0%	46.9%	46.0%
<b>SIGNIFICANCE (B)</b> (LIFE TABLE)	P=0.070N	P=0.805	P=0.936
<b>MEAN DAY OF NATURAL DEATHS (C)</b> (STANDARD ERROR)	634.1 (23.3)	593.2 (22.2)	617.9 (16.9)
<b>MEAN LIFE SPAN (D)</b> (STANDARD ERROR)	699.4 (10.2)	657.3 (15.6)	670.8 (12.2)

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

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