

**Experiment Number:** 99930-98  
**Test Type:** SPECIAL STUDY  
**Route:** DOSED FEED  
**Species/Strain:** Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
**Test Compound:** Endocrine disruptor (Genistein)  
**CAS Number:** 446-72-0

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:43:40  
**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

Experiment Number: 99930-98

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Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

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CAS Number: 446-72-0

Date Report Requested: 10/18/2014

Time Report Requested: 23:43:40

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 0 PPM	DAY ON TEST																								*TOTALS		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
	9	9	9	9	9	2	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	4	4	4	3	2	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4		
	7	7	7	7	7	1	1	1	1	1	1	1	1	8	8	8	9	9	9	0	0	3	4	4	4		
	3	4	5	6	7	3	4	5	6	7	8	9	7	8	9	0	1	2	6	7	9	0	1	2	3	4	

Alimentary System

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26
Hemorrhage														1												1 1.0
Hepatodiaphragmatic Nodule														X												1
Inflammation, Chronic	1		2	1	1	1	1		1	1		1	1	1	1	1	1	1	1	1		1	1	1	22 1.0	
Necrosis			2	1										1	1										1	5 1.2
Vacuolization Cytoplasmic			1						1			1	1					1			1	1	1			8 1.0

Cardiovascular System

NONE

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26
Accessory Adrenal Cortical Nodule															X							X				2
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26
Mineralization														1												1 1.0
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26

General Body System

NONE

Genital System

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26
-------------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

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Test Type: SPECIAL STUDY

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 23:43:41

Route: DOSED FEED

CAS Number: 446-72-0

First Dose M/F: NA / NA

Species/Strain: Rat/CD

Lab: NCTR

CD Rat Male F1 0 PPM	DAY ON TEST																								ANIMAL ID		*TOTALS	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0		26
	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0		
	9	9	9	9	9	2	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	4	4	4	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	0		
	7	7	7	7	7	1	1	1	1	1	1	1	1	1	8	8	8	9	9	9	0	0	3	4	4	0		
	3	4	5	6	7	3	4	5	6	7	8	9	7	8	8	9	0	1	2	6	7	9	4	4	0			
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		26	
Hypospermia							4																				1 4.0	
Infiltration Cellular, Lymphocyte																	1							1			2 1.0	
Prostate											+								+	+							3	
Prostate, Dorsal Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		26	
Inflammation, Chronic			1		2				1					1	1					2				1			8 1.3	
Inflammation, Suppurative						2			2					2	2					3				1	2		8 2.0	
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		26	
Inflammation, Chronic	2	1	2	1		1	2	1	2		1			2	3	2	1	1			1	2	2	2		1	20 1.6	
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		26	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		26	
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		26	
Seminif Tub, Degeneration							4																				1 4.0	
<b>Hematopoietic System</b>																												
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		26	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		26	
Adventitia, Inflammation, Chronic												2															1 2.0	
Pigmentation	1				1			1										1		1				1			6 1.0	
Red Pulp, Fibrosis																								2			1 2.0	
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		26	
Hemorrhage																									3		1 3.0	
<b>Integumentary System</b>																												

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+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue  
M ..Missing tissue  
A ..Autolysis precludes evaluation  
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 Lab: NCTR

**CD Rat Male**  
**F1 0 PPM**

	DAY ON TEST																												
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
	9	9	9	9	9	2	1	1	1	1	1	1	2	2	1	1	1	1	1	1	4	4	4	3	2	2			
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4			
	7	7	7	7	7	1	1	1	1	1	1	1	8	8	8	8	9	9	9	0	0	3	4	4	4	4			
	3	4	5	6	7	3	4	5	6	7	8	9	7	8	9	0	1	2	6	7	9	0	1	2	3	4			
	<b>*TOTALS</b>																												
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26		
Alveolus, Hyperplasia													1														1	1.0	
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26		
<b>Musculoskeletal System</b>																													
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26		
<b>Nervous System</b>																													
NONE																													
<b>Respiratory System</b>																													
NONE																													
<b>Special Senses System</b>																													
NONE																													
<b>Urinary System</b>																													
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	26		
Casts Protein																												1	1.0
Inflammation, Chronic	1		1		1	1	1	1						1		1	1	1	1	1	1	1	1		1	1	16	1.0	
Renal Tubule, Dilatation			1			1							1	2							1							5	1.2
Renal Tubule, Mineralization																					1							1	1.0
Renal Tubule, Regeneration	1					1	1					1												1	1			6	1.0

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**CD Rat Male**  
**F1 5 PPM**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
	9	9	9	9	9	1	1	1	1	1	2	2	2	2	2	2	1	1	3	3	3	3	2	1	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	
	7	7	8	8	8	2	2	2	2	2	9	9	9	9	9	0	0	1	4	4	4	4	5	5	
	8	9	0	1	2	0	1	2	3	4	3	4	5	6	7	8	9	0	5	6	7	8	9	0	1
	<b>*TOTALS</b>																								

**Alimentary System**

NONE

**Cardiovascular System**

NONE

**Endocrine System**

NONE

**General Body System**

NONE

**Genital System**

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Hypospermia	4																								1 4.0
Infiltration Cellular, Lymphocyte									1																1 1.0
Prostate		+				+								+	+	+		+							8
Prostate, Dorsal Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Inflammation, Chronic	1				1			1			1														4 1.0
Inflammation, Suppurative	1		1	1	2			1	1														2		7 1.3
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Inflammation, Chronic	1		1		2		1	2	1	1			1			1		2	1	2		1	2	1	15 1.3
Inflammation, Suppurative							1	2		1									1				2		5 1.4

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**CD Rat Male  
 F1 5 PPM**

	DAY ON TEST																								
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
	9	9	9	9	9	1	1	1	1	1	2	2	2	2	2	2	1	1	3	3	3	3	2	1	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	
	7	7	8	8	8	2	2	2	2	2	9	9	9	9	9	0	0	1	4	4	4	4	5	5	
	8	9	0	1	2	0	1	2	3	4	3	4	5	6	7	8	9	0	5	6	7	8	9	0	
																									<b>*TOTALS</b>
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Dilatation																									2 2.0
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Seminif Tub, Degeneration	4																							1	2 2.5
<b>Hematopoietic System</b>																									
NONE																									
<b>Integumentary System</b>																									
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Duct, Hyperplasia																									1 1.0
<b>Musculoskeletal System</b>																									
NONE																									
<b>Nervous System</b>																									
NONE																									
<b>Respiratory System</b>																									
NONE																									
<b>Special Senses System</b>																									
NONE																									
<b>Urinary System</b>																									

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CD Rat Male  
F1 5 PPM

	DAY ON TEST																								
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
	9	9	9	9	9	1	1	1	1	1	2	2	2	2	2	2	1	1	3	3	3	3	3	3	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	
	7	7	8	8	8	2	2	2	2	2	9	9	9	9	9	0	0	1	4	4	4	4	4	4	
	8	9	0	1	2	0	1	2	3	4	3	4	5	6	7	8	9	0	5	6	7	8	9	0	
																									<b>*TOTALS</b>
Kidney	+																								25
Capsule, Fat, Cyst	X																								1
Cortex, Cyst																									2
Epithelium, Pelvis, Hyperplasia																									1 1.0
Inflammation, Chronic	1	1	1	1		1	1	1			1			1		1		2	1	1	1	1	1	16 1.1	
Renal Tubule, Dilatation																									6 1.7
Renal Tubule, Mineralization																									3 2.0
Renal Tubule, Regeneration																									6 1.0

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CD Rat Male F1 100 PPM	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	ANIMAL ID	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	9	9	9	9	2	1	1	1	1	1	1	1	1	2	2	2	1	0	0	0	3	3	3	3	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	
	8	8	8	8	2	2	2	2	2	3	3	3	9	9	0	0	0	1	1	5	5	5	5	5	
	3	4	5	6	5	6	7	8	9	0	1	2	8	9	0	1	2	1	2	2	3	4	5	6	7

\*TOTALS

**Alimentary System**

NONE

**Cardiovascular System**

NONE

**Endocrine System**

NONE

**General Body System**

NONE

**Genital System**

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Infiltration Cellular, Lymphocyte												1													1 1.0	
Prostate				+	+				+									+	+						5	
Prostate, Dorsal Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Epithelium, Hyperplasia																						1			1 1.0	
Inflammation, Chronic	1		1		1													1	1						5 1.0	
Inflammation, Suppurative			1	2		2		1			1		1	1		2	2	2	1				2		12 1.5	
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Inflammation, Chronic	1	2	1		1		1	1	1		3	1		2	3	1	1		2		1		2	1	2	18 1.5
Inflammation, Suppurative						2			1																	2 1.5

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked



Experiment Number: 99930-98  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: Endocrine disruptor (Genistein)  
 CAS Number: 446-72-0

Date Report Requested: 10/18/2014  
 Time Report Requested: 23:43:41  
 First Dose M/F: NA / NA  
 Lab: NCTR

		DAY ON TEST																											
CD Rat Male F1 100 PPM	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
		5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
		9	9	9	9	2	1	1	1	1	1	1	1	1	2	2	2	1	0	0	3	3	3	3	3	3	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4		
		8	8	8	8	2	2	2	2	2	3	3	3	9	9	0	0	0	1	1	1	5	5	5	5	5	5		
		3	4	5	6	5	6	7	8	9	0	1	2	8	9	0	1	2	1	2	2	3	4	5	6	7			
																												*TOTALS	
Rete Testes		+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	M	+	+	+	23	
Seminal Vesicle		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Testes		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Seminif Tub, Degeneration			1																									1 1.0	
<b>Hematopoietic System</b>																													
NONE																													
<b>Integumentary System</b>																													
Mammary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Alveolus, Hyperplasia													1	1										1				3 1.0	
Duct, Hyperplasia																			1	1								2 1.0	
<b>Musculoskeletal System</b>																													
NONE																													
<b>Nervous System</b>																													
NONE																													
<b>Respiratory System</b>																													
NONE																													
<b>Special Senses System</b>																													
NONE																													
<b>Urinary System</b>																													

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically  
 1-4 ..Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 99930-98

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/18/2014

Test Type: SPECIAL STUDY

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 23:43:42

Route: DOSED FEED

CAS Number: 446-72-0

First Dose M/F: NA / NA

Species/Strain: Rat/CD

Lab: NCTR

CD Rat Male  
F1 100 PPM

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	9	9	9	9	2	1	1	1	1	1	1	1	1	2	2	2	1	0	0	0	3	3	3	3	3	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4
	8	8	8	8	2	2	2	2	2	3	3	3	9	9	0	0	0	1	1	1	5	5	5	5	5	5
	3	4	5	6	5	6	7	8	9	0	1	2	8	9	0	1	2	1	2	2	3	4	5	5	6	7
																								<b>*TOTALS</b>		
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Infiltration Cellular, Lymphocyte																								1	1.0	
Inflammation, Chronic	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19
Pelvis, Dilatation																								2	2.0	
Renal Tubule, Dilatation																								3	2.5	
Renal Tubule, Mineralization																								1	1.0	
Renal Tubule, Regeneration																								1	1.0	

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-98

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/18/2014

Test Type: SPECIAL STUDY

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 23:43:42

Route: DOSED FEED

CAS Number: 446-72-0

First Dose M/F: NA / NA

Species/Strain: Rat/CD

Lab: NCTR

DAY ON TEST		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CD Rat Male F1 500 PPM		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		5	5	5	5	5	5	5	5	6	6	6	6	6	6	5	6	6	6	6	6	6	6	6	6
	ANIMAL ID	9	9	9	9	9	9	9	8	2	2	1	1	2	0	9	2	2	0	1	1	3	3	2	1
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4
	8	8	8	9	9	9	9	9	3	3	3	3	3	0	0	0	1	1	1	1	1	5	5	6	6
	7	8	9	0	1	2	3	4	3	4	5	6	7	3	4	5	3	4	5	6	7	8	9	0	1
																								<b>*TOTALS</b>	

Alimentary System

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Inflammation, Chronic		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22	1.0
Necrosis			1	1																					2	1.0
Vacuolization Cytoplasmic		1					1					1													3	1.0

Cardiovascular System

NONE

Endocrine System

Adrenal Cortex	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Vacuolization Cytoplasmic					2																				1	2.0
Adrenal Medulla	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Pars Distalis, Cyst, Multiple																							X		1	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Inflammation, Chronic													1												1	1.0

General Body System

NONE

Genital System

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-98

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/18/2014

Test Type: SPECIAL STUDY

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 23:43:42

Route: DOSED FEED

CAS Number: 446-72-0

First Dose M/F: NA / NA

Species/Strain: Rat/CD

Lab: NCTR

CD Rat Male F1 500 PPM	DAY ON TEST																						*TOTALS	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1.0
Infiltration Cellular, Lymphocyte	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Preputial Gland	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	5	6	6	6	6	6	6	1	2.0
Inflammation, Chronic	9	9	9	9	9	9	9	8	2	2	2	1	1	1	2	0	9	2	2	0	1	1	3	
Prostate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
Prostate, Dorsal Lobe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
Inflammation, Chronic	2	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	1.3
Inflammation, Suppurative	8	8	8	9	9	9	9	9	3	3	3	3	3	0	0	0	1	1	1	1	1	5	13	1.8
Prostate, Ventral Lobe	7	8	9	0	1	2	3	4	3	4	5	6	7	3	4	5	3	4	5	6	7	8	24	
Inflammation, Chronic																							24	
Inflammation, Suppurative																							13	1.8
Testes																							24	
Inflammation, Chronic																							13	1.2
Inflammation, Suppurative																							3	1.3
Rete Testes																							25	
Seminal Vesicle																							25	
Dilatation																							3	2.0
Testes																							25	
Seminif Tub, Degeneration																							2	1.0
<b>Hematopoietic System</b>																								
Bone Marrow																							25	
Spleen																							25	
Hyperplasia, Stromal																							2	1.0
Pigmentation																							5	1.0
Thymus																							25	
Hemorrhage																							1	2.0

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

I ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99930-98

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/18/2014

Time Report Requested: 23:43:42

First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Male  
F1 500 PPM**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	5	5	5	5	5	5	5	5	6	6	6	6	6	6	5	6	6	6	6	6	6	6	6	6	
	9	9	9	9	9	9	9	8	2	2	1	1	1	2	0	9	2	2	0	1	1	3	3	2	1
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	
	8	8	8	9	9	9	9	9	3	3	3	3	3	0	0	0	1	1	1	1	5	5	6	6	
	7	8	9	0	1	2	3	4	3	4	5	6	7	3	4	5	3	4	5	6	7	8	9	0	1
																								<b>*TOTALS</b>	

**Integumentary System**

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25		
Alveolus, Hyperplasia			1				3				2	2			2	2			2		1		1	3	10	1.9
Duct, Hyperplasia	2		1	2			2							2	1				2				1		8	1.6
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	

**Musculoskeletal System**

Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----

**Nervous System**

NONE

**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Capsule, Fat, Cyst																							X		1	
Casts Protein			1																						1	1.0
Cortex, Cyst												X													1	
Cortex, Cyst, Multiple																		X							1	

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

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1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-98

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/18/2014

Test Type: SPECIAL STUDY

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 23:43:42

Route: DOSED FEED

CAS Number: 446-72-0

First Dose M/F: NA / NA

Species/Strain: Rat/CD

Lab: NCTR

CD Rat Male  
F1 500 PPM

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																																											
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1																																											
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	5	6	6	6	6	6	6	6	6	6																																											
	9	9	9	9	9	9	9	8	2	2	1	1	1	2	0	9	2	2	0	1	1	3	3	2	1																																											
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																																											
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																																											
	2	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4																																											
	8	8	8	9	9	9	9	9	3	3	3	3	3	0	0	1	1	1	1	1	1	5	5	6	6																																											
	7	8	9	0	1	2	3	4	3	4	5	6	7	3	4	5	3	4	5	6	7	8	9	0	1																																											
																										<b>*TOTALS</b>																																										
Epithelium, Hyperplasia																								1																							1	1.0																				
Inflammation, Chronic	1		1	1	1	1	1	1	1	1	2	1		1	1	2	1	1	1		1	1	1	2			22	1.1																																								
Renal Tubule, Dilatation																								2	2								1	1	1	3								2		8	1.8																					
Renal Tubule, Mineralization	2		1	2			1			1								1	2	1			1	3		2	2	2	2			15	1.7																																			
Renal Tubule, Regeneration	1		1	1	1	1		1	1	1	2								1	1	2	2	1	1								1	1	1	1	19	1.2																															
Renal Tubule, Vacuolization Cytoplasmic																								1																																											1	1.0

\*\*\*END OF MALE DATA\*\*\*

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-98  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: Endocrine disruptor (Genistein)  
 CAS Number: 446-72-0

Date Report Requested: 10/18/2014  
 Time Report Requested: 23:43:42  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female**  
**F1 0 PPM**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4	5	5	6	5	5	5	5	5	6	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6
	5	9	7	0	9	9	9	8	8	0	9	9	9	9	9	0	0	0	3	3	3	2	2	4	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4
	6	6	6	9	9	9	9	9	0	3	3	4	4	4	4	7	8	8	1	2	2	2	2	6	
	0	2	3	5	6	7	8	9	0	8	9	0	1	2	3	4	9	0	1	9	0	1	2	3	2
																								<b>*TOTALS</b>	

**Alimentary System**

Intestine Large, Cecum	A																								0	
Intestine Large, Colon	A																									0
Intestine Small, Duodenum	A																									0
Intestine Small, Ileum	A																									0
Intestine Small, Jejunum	A																									0
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Autolysis	2																									1 2.0
Inflammation, Chronic Active, Focal				1				1	2										1							4 1.3
Salivary Glands	+																									1
Autolysis	3																									1 3.0
Stomach, Forestomach	+																									1
Autolysis	4																									1 4.0
Stomach, Glandular	A																									0

**Cardiovascular System**

Heart	+																									1
Cardiomyopathy, Focal	2																									1 2.0

**Endocrine System**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Autolysis	2																									1 2.0
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically  
 1-4 ..Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 99930-98

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/18/2014

Time Report Requested: 23:43:43

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female  
F1 0 PPM

	DAY ON TEST																								
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	4	5	5	6	5	5	5	5	5	6	5	5	5	5	5	5	6	6	6	6	6	6	6	6	
	5	9	7	0	9	9	9	8	8	0	9	9	9	9	9	9	0	0	0	3	3	3	2	4	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	
	6	6	6	9	9	9	9	9	0	3	3	4	4	4	4	4	7	8	8	1	2	2	2	6	
	0	2	3	5	6	7	8	9	0	8	9	0	1	2	3	4	9	0	1	9	0	1	2	3	<b>*TOTALS</b>
Autolysis	2																								1 2.0
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Autolysis	2																								1 2.0
Rathkes Cleft, Cyst																						X			1
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Autolysis	2																								1 2.0
Bilateral, Ultimobranchial Cyst																							X		1
<b>General Body System</b>																									
NONE																									
<b>Genital System</b>																									
Clitoral Gland	A																								0
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Autolysis	1																								1 1.0
Diestrus			X	X										X	X			X		X	X		X		8
Estrus								X		X	X	X	X				X					X			7
Metestrus							X																		1
Proestrus		X			X	X	X		X							X		X					X		8
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Autolysis	2																								1 2.0
Decidual Reaction			X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	22
Diestrus			X	X										X	X			X		X	X		X		8

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked



Experiment Number: 99930-98

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/18/2014

Test Type: SPECIAL STUDY

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 23:43:43

Route: DOSED FEED

CAS Number: 446-72-0

First Dose M/F: NA / NA

Species/Strain: Rat/CD

Lab: NCTR

CD Rat Female F1 0 PPM	DAY ON TEST																								*TOTALS
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	4	5	5	6	5	5	5	5	5	6	5	5	5	5	5	6	6	6	6	6	6	6	6	6	
	5	9	7	0	9	9	9	8	8	0	9	9	9	9	9	0	0	0	3	3	3	2	2	4	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	
	6	6	6	9	9	9	9	9	0	3	3	4	4	4	4	7	8	8	1	2	2	2	2	6	
	0	2	3	5	6	7	8	9	0	8	9	0	1	2	3	4	9	0	1	9	0	2	2	2	
Estrus								X	X	X	X					X				X				6	
Metestrus									X				X											2	
Proestrus		X			X	X				X	X				X		X					X		8	
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Autolysis	2																							1 2.0	
Diestrus			X	X										X	X			X		X	X		X	8	
Estrus		X			X	X			X	X	X					X					X			9	
Metestrus							X					X												2	
Proestrus						X			X						X		X						X	5	
<b>Hematopoietic System</b>																									
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Lymph Node, Mandibular	+																							1	
Autolysis	3																							1 3.0	
Lymph Node, Mesenteric	+																							1	
Autolysis	2																							1 2.0	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Autolysis	2																							1 2.0	
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
<b>Integumentary System</b>																									
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	24	
Alveolus, Hyperplasia	4	1				1	2	1			3				2								1	8 1.9	
Galactocele																						X		1	

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue  
M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically  
1-4 ..Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

Experiment Number: 99930-98  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: Endocrine disruptor (Genistein)  
 CAS Number: 446-72-0

Date Report Requested: 10/18/2014  
 Time Report Requested: 23:43:43  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female**  
**F1 0 PPM**

	DAY ON TEST																									
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	4	5	5	6	5	5	5	5	5	6	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	
	5	9	7	0	9	9	9	8	8	0	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	
	6	6	6	9	9	9	9	9	0	3	3	4	4	4	4	4	7	8	8	1	2	2	2	2	6	
	0	2	3	5	6	7	8	9	0	8	9	0	1	2	3	4	9	0	1	0	0	1	2	3	2	<b>*TOTALS</b>
Lobules, Hyperplasia	4																									1 4.0
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
<b>Musculoskeletal System</b>																										
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
<b>Nervous System</b>																										
Brain, Brain Stem	+																									1
Autolysis	2																									1 2.0
Brain, Cerebellum	+																									1
Autolysis	2																									1 2.0
Brain, Cerebrum	+																									1
Autolysis	2																									1 2.0
<b>Respiratory System</b>																										
Lung	+																									1
Congestion, Diffuse	4																									1 4.0
Nose	+																									1
Congestion, Diffuse	4																									1 4.0
<b>Special Senses System</b>																										
NONE																										
<b>Urinary System</b>																										
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically  
 1-4 ..Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 99930-98  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: Endocrine disruptor (Genistein)  
 CAS Number: 446-72-0

Date Report Requested: 10/18/2014  
 Time Report Requested: 23:43:43  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female**  
**F1 0 PPM**

	DAY ON TEST																								
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	4	5	5	6	5	5	5	5	5	6	5	5	5	5	5	6	6	6	6	6	6	6	6	6	
	5	9	7	0	9	9	9	8	8	0	9	9	9	9	9	0	0	0	0	0	3	3	3	4	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	
	6	6	6	9	9	9	9	9	0	3	3	4	4	4	4	7	8	8	1	2	2	2	2	6	
	0	2	3	5	6	7	8	9	0	8	9	0	1	2	3	4	9	0	1	2	2	3	2		
																									<b>*TOTALS</b>
Autolysis	3																								1 3.0
Bilateral, Nephropathy																									2 1.0
Cyst	X																								1
Infarct	X																								1
Mineralization	2																								21 1.9

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically  
 1-4 ..Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 99930-98

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/18/2014

Test Type: SPECIAL STUDY

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 23:43:43

Route: DOSED FEED

CAS Number: 446-72-0

First Dose M/F: NA / NA

Species/Strain: Rat/CD

Lab: NCTR

CD Rat Female  
F1 5 PPM

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	5	5	6	5	5	5	5	5	6	6	6	5	5	6	6	6	5	5	6	6	6	6	6	6	
	9	9	0	9	9	9	9	9	0	0	0	9	9	0	0	0	9	9	3	3	3	3	2	1	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	
	6	6	0	0	0	0	0	0	4	4	4	6	6	8	8	8	8	8	2	2	2	2	2	3	
	4	5	1	2	3	4	5	6	5	6	7	0	1	2	3	4	5	6	4	5	6	7	8	9	0

\*TOTALS

Alimentary System

Liver + 1

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Cyst																							X		1
Diestrus				X																		X			2
Estrus	X	X				X				X	X			X					X					X	8
Metestrus								X							X					X	X	X	X		6
Proestrus			X		X		X	X				X	X	X			X		X						9
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Angiectasis, Focal					3																				1 3.0
Decidual Reaction		X	X			X	X		X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	20
Diestrus				X											X										2

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

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1-4 ..Lesion qualified as:

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2) Mild 4) Marked

Experiment Number: 99930-98

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/18/2014

Time Report Requested: 23:43:44

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female  
F1 5 PPM

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5	5	6	5	5	5	5	5	6	6	6	5	5	6	6	6	5	5	6	6	6	6	6	6
	9	9	0	9	9	9	9	9	0	0	0	9	9	0	0	0	9	9	0	0	3	3	3	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4
6	6	0	0	0	0	0	0	0	4	4	4	6	6	8	8	8	8	2	2	2	2	2	2	3
4	5	1	2	3	4	5	6	5	6	7	0	1	2	3	4	5	6	4	5	6	7	8	9	0

\*TOTALS

Endometrium, Inflammation, Diffuse																									1	2.0		
Estrus	X	X				X				X	X			X					X							8		
Inflammation, Chronic Active, Focal																										1	3.0	
Metestrus									X											X	X	X	X			5		
Proestrus			X		X		X	X				X	X	X			X		X								9	
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		25		
Diestrus				X																							1	
Estrus	X	X				X				X	X	X	X		X				X					X			10	
Infiltration Cellular, Polymorphnuclr																											1	2.0
Metestrus									X							X					X	X	X	X			6	
Proestrus			X		X		X	X						X			X		X									7

Hematopoietic System

NONE

Integumentary System

Mammary Gland	+	+	+	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+			23		
Alveolus, Hyperplasia														1	1	4	1											6	2.2
Lobules, Hyperplasia																4												2	4.0

Musculoskeletal System

NONE

Nervous System

NONE

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue  
M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically  
1-4 ..Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

**Experiment Number:** 99930-98  
**Test Type:** SPECIAL STUDY  
**Route:** DOSED FEED  
**Species/Strain:** Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

**Test Compound:** Endocrine disruptor (Genistein)  
**CAS Number:** 446-72-0

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:43:44  
**First Dose M/F:** NA / NA  
**Lab:** NCTR

**CD Rat Female**  
**F1 5 PPM**

DAY ON TEST	ANIMAL ID																							
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
5	5	6	5	5	5	5	5	6	6	6	5	5	6	6	6	5	5	6	6	6	6	6	6	
9	9	0	9	9	9	9	9	0	0	0	9	9	0	0	0	9	9	0	0	9	3	3	1	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	
6	6	0	0	0	0	0	0	4	4	4	6	6	8	8	8	8	8	2	2	2	2	2	3	
4	5	1	2	3	4	5	6	5	6	7	0	1	2	3	4	5	6	4	5	6	7	8	0	

**\*TOTALS**

NONE  
**Respiratory System**

NONE  
**Special Senses System**

NONE  
**Urinary System**

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25			
Cyst, Multiple		X																						1			
Mineralization		4	1	3	1	1	4	4	1	1	1	2	1	2	2	1	3	3	1		1	1	3	1	1	23	1.9
Pelvis, Dilatation										1																1	1.0

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically  
 1-4 ..Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 99930-98  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: Endocrine disruptor (Genistein)  
 CAS Number: 446-72-0

Date Report Requested: 10/18/2014  
 Time Report Requested: 23:43:44  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F1 100 PPM**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	5	5	6	5	5	5	6	6	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	
	9	9	0	9	9	9	0	0	9	9	9	9	9	9	9	9	9	3	3	3	3	3	3	3	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	
	6	6	0	0	0	1	4	4	5	5	5	6	6	6	6	6	6	6	3	3	3	3	3	3	
	6	7	7	8	9	0	8	9	0	1	2	2	3	4	5	6	7	8	9	1	2	3	4	5	6
	<b>*TOTALS</b>																								

**Alimentary System**

NONE

**Cardiovascular System**

NONE

**Endocrine System**

NONE

**General Body System**

NONE

**Genital System**

Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Diestrus		X									X											X	X		4
Estrus								X			X	X				X				X	X				6
Metestrus			X		X	X							X	X	X					X					7
Proestrus	X			X		X			X							X	X						X		7
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Decidual Reaction		X	X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X		X	X	X	21
Diestrus		X									X											X	X		4
Estrus							X	X			X	X			X				X	X					7
Metestrus			X		X	X							X	X	X				X						7

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

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BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-98  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: Endocrine disruptor (Genistein)  
 CAS Number: 446-72-0

Date Report Requested: 10/18/2014  
 Time Report Requested: 23:43:44  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F1 100 PPM**

	DAY ON TEST																								
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	5	5	6	5	5	5	6	6	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	
	9	9	0	9	9	9	0	0	9	9	9	9	9	9	9	9	9	9	9	3	3	3	3	3	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	
	6	6	0	0	0	1	4	4	5	5	5	6	6	6	6	6	6	6	6	3	3	3	3	3	
	6	7	7	8	9	0	0	0	1	1	2	2	3	4	5	6	7	8	9	1	2	3	4	5	
																									<b>*TOTALS</b>
Proestrus	X			X			X			X								X	X				X	7	
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Diestrus		X								X												X	X	4	
Estrus								X	X			X	X			X				X	X			7	
Metestrus			X		X	X							X	X	X					X				7	
Proestrus	X			X			X			X							X	X					X	7	
<b>Hematopoietic System</b>																									
NONE																									
<b>Integumentary System</b>																									
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Alveolus, Hyperplasia	2	1	1		1	2			3			1	2	1	3	1	1		3	2				14	1.7
Galactocele											X													1	
Lobules, Hyperplasia														2						1				2	1.5
Skin																								1	
Lip, Abscess																				X				1	
<b>Musculoskeletal System</b>																									
NONE																									
<b>Nervous System</b>																									
NONE																									
<b>Respiratory System</b>																									

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
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 1) Minimal 3) Moderate  
 2) Mild 4) Marked



Experiment Number: 99930-98  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: Endocrine disruptor (Genistein)  
 CAS Number: 446-72-0

Date Report Requested: 10/18/2014  
 Time Report Requested: 23:43:44  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F1 100 PPM**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	5	5	6	5	5	5	6	6	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6		
	9	9	0	9	9	9	0	0	9	9	9	9	9	9	9	9	9	3	3	3	3	3	3		
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4		
	6	6	0	0	0	1	4	4	5	5	5	6	6	6	6	6	6	3	3	3	3	3	3		
	6	7	7	8	9	0	8	9	0	1	2	2	3	4	5	6	7	8	9	1	2	3	4	5	6

**\*TOTALS**

NONE  
**Special Senses System**

NONE  
**Urinary System**

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Inflammation, Chronic Active																									1	1.0
Mineralization	1	3	2	1	1	3			1	1	1	1	2	2	2	1	3	1	1	4	3	1	3	2	22	1.8

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
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 1-4 ..Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 99930-98

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/18/2014

Time Report Requested: 23:43:44

First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Female  
F1 500 PPM**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5	5	5	5	5	6	5	5	5	5	5	5	5	5	6	6	6	6	5	5	5	5	5	6
	9	9	9	9	8	0	9	9	9	9	8	8	8	8	1	1	1	0	9	9	9	9	1	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4
	6	6	7	7	7	1	1	5	5	5	5	5	5	5	7	7	7	7	7	7	7	7	3	3
	8	9	0	1	2	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	8
	<b>*TOTALS</b>																							

**Alimentary System**

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Developmental Malformation											X													1
Inflammation, Chronic Active, Focal											1	1			1						1	1		5 1.0
Necrosis, Focal			1																					1 1.0

**Cardiovascular System**

NONE																								
<b>Endocrine System</b>																								
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Hyperplasia, Focal											1													1 1.0
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Rathkes Cleft, Cyst				X		X																		2
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Bilateral, Infiltration Cellular, Lymphocyte, Focal																							1	1 1.0
Ultimobranchial Cyst																							X	1

**General Body System**

NONE																								
<b>Genital System</b>																								

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
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Experiment Number: 99930-98

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/18/2014

Test Type: SPECIAL STUDY

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 23:43:44

Route: DOSED FEED

CAS Number: 446-72-0

First Dose M/F: NA / NA

Species/Strain: Rat/CD

Lab: NCTR

CD Rat Female F1 500 PPM	DAY ON TEST																								*TOTALS
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	5	5	5	5	5	6	5	5	5	5	5	5	5	5	6	6	6	6	5	5	5	5	6	6	
	9	9	9	9	8	0	9	9	9	8	8	8	8	1	1	1	0	9	9	9	9	1	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	
	6	6	7	7	7	1	1	5	5	5	5	5	5	7	7	7	7	7	7	7	7	7	3	3	
	8	9	0	1	2	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	7	8	
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Cyst						X																		1	
Diestrus		X						X	X	X			X		X		X					X		8	
Estrus	X					X		X										X	X					5	
Metestrus			X							X			X							X			X	5	
Proestrus				X	X		X					X				X				X		X		7	
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Decidual Reaction	X	X			X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	
Diestrus		X						X	X				X		X		X					X		7	
Endometrium, Dilatation															1									1 1.0	
Estrus	X					X		X											X	X				5	
Metestrus			X							X		X							X			X		5	
Proestrus				X	X		X			X		X			X					X		X		8	
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Diestrus		X							X	X				X		X		X				X		7	
Estrus				X		X		X											X	X				5	
Metestrus	X		X							X		X			X					X			X	6	
Proestrus					X		X			X		X				X				X		X		7	
<b>Hematopoietic System</b>																									
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue  
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BLANK ..Not examined microscopically  
1-4 ..Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

Experiment Number: 99930-98

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/18/2014

Test Type: SPECIAL STUDY

Test Compound: Endocrine disruptor (Genistein)

Time Report Requested: 23:43:45

Route: DOSED FEED

CAS Number: 446-72-0

First Dose M/F: NA / NA

Species/Strain: Rat/CD

Lab: NCTR

CD Rat Female  
F1 500 PPM

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
	5	5	5	5	5	6	5	5	5	5	5	5	5	5	6	6	6	6	5	5	5	5	5	6	6						
	9	9	9	9	8	0	9	9	9	9	8	8	8	8	1	1	1	0	9	9	9	9	9	1	0						
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4					
	6	6	7	7	7	1	1	5	5	5	5	5	5	5	7	7	7	7	7	7	7	7	7	7	3	3					
	8	9	0	1	2	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	7	8						
																									<b>*TOTALS</b>						
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25		
<b>Integumentary System</b>																															
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25		
Alveolus, Hyperplasia		1	2	1										2				1	2	1		1						8	1.4		
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25		
<b>Musculoskeletal System</b>																															
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25		
<b>Nervous System</b>																															
NONE																															
<b>Respiratory System</b>																															
NONE																															
<b>Special Senses System</b>																															
NONE																															
<b>Urinary System</b>																															
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25		
Cyst, Multiple															X														1		
Mineralization	1	3	2	2	1	2	1	3	4	3	1	1	3	1	1	1	1	4	2	2	3		1	1	1			24	1.9		
Nephropathy																		1				2							2	1.5	
Pelvis, Dilatation																						3								1	3.0

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

**Experiment Number:** 99930-98

**Test Type:** SPECIAL STUDY

**Route:** DOSED FEED

**Species/Strain:** Rat/CD

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

**Test Compound:** Endocrine disruptor (Genistein)

**CAS Number:** 446-72-0

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:43:45

**First Dose M/F:** NA / NA

**Lab:** NCTR

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

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked