

Experiment Number: 99930-91
Test Type: MULTIGEN CHRONIC
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: 10/23/2014
Time Report Requested: 03:19:07
First Dose M/F: NA / NA
Lab: NCTR

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

Experiment Number: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:07
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F0 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
	8	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	1	9	9	9	9	9	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	0	0
	0	0	0	0	0	0	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	2	2	2	2	2	2
	0	4	4	4	4	5	0	0	0	0	0	0	0	5	5	5	5	5	5	0	0	0	0	0
	1	6	7	8	9	0	1	2	3	4	5	6	7	0	1	1	1	1	1	1	2	3	4	5
	*TOTALS																							

Alimentary System

Esophagus	A																								0	
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	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Fibrosis													2												1	2.0
Hepatodiaphragmatic Nodule				X									X							X					3	
Inflammation, Chronic		1	1	1	1		1	1	1	1	2	1	1		1	1		1	1	1	1	1			18	1.1
Necrosis													1						1						2	1.0
Vacuolization Cytoplasmic				1		1	2		1				1				1			1					7	1.1
Pancreas	A																								0	
Salivary Glands	+																								1	

Cardiovascular System

Blood Vessel	+																								1
Heart	+																								1

Endocrine System

Adrenal Cortex	A	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	23
Accessory Adrenal Cortical Nodule																				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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:08
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F0 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	
	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	0			
	8	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0			
	1	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	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	2	2	2	2	2	2	0			
	0	4	4	4	4	4	5	0	0	0	0	0	0	0	5	5	5	5	5	5	0	0	0	0	0	0			
	1	6	7	8	9	0	1	2	3	4	5	6	7	0	1	1	1	1	1	1	2	2	2	2	2	0			
Adrenal Medulla	A	+	+	M	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	22				
Parathyroid Gland	+																								1				
Pituitary Gland	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24				
Thyroid Gland	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24				
Inflammation, Chronic																									1		1	1.0	
General Body System																													
NONE																													
Genital System																													
Coagulating Gland	A	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	23				
Epididymis	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24				
Hypospermia						2		3																		2	2.5		
Infiltration Cellular, Lymphocyte								1																		1	1.0		
Preputial Gland	A																								0				
Prostate	A	+		M															+						2				
Prostate, Dorsal Lobe	A	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	23				
Inflammation, Chronic									1		1	1	1		1		1									6	1.0		
Inflammation, Suppurative				1						2						1					1	2		1	1	1		8	1.3
Prostate, Ventral Lobe	A	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	23				
Inflammation, Chronic						1	2	2	2		1	2	1	1	2	2	1		1	2	2	2	2		1		17	1.6	
Inflammation, Suppurative																2									1		2	1.5	
Rete Testes	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24				
Dilatation						2		3																		2	2.5		

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:08
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F0 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	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	
		8	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
		1	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	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	2	2	2	2	
		0	4	4	4	4	5	0	0	0	0	0	0	0	5	5	5	5	5	0	0	0	0	
		1	6	7	8	9	0	1	2	3	4	5	6	7	0	1	1	1	1	2	2	2	2	
Seminal Vesicle	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Dilatation				2											2					2				3 2.0
Epithelium, Degeneration								2																1 2.0
Testes		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Autolysis	X																							1
Seminif Tub, Degeneration						4		4													1			3 3.0
Hematopoietic System																								
Bone Marrow	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Lymph Node, Mandibular	A																							0
Lymph Node, Mesenteric	A																							0
Spleen	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Pigmentation			1			1					1					1		1						5 1.0
Thymus	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Integumentary System																								
Mammary Gland	A	+	+	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	23
Alveolus, Hyperplasia															1									1 1.0
Skin		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Musculoskeletal System																								
Bone, Femur		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25
Nervous System																								
Brain	A																							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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:08
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F0 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
	8	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	1	9	9	9	9	9	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	0	0	0
	0	0	0	0	0	0	0	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	2	2	2	2	2	2	2
	0	4	4	4	4	4	5	0	0	0	0	0	0	0	5	5	5	5	5	5	0	0	0	0	0
	1	6	7	8	9	0	1	2	3	4	5	6	7	0	1	2	3	4	5	0	1	2	3	4	5
*TOTALS																									

Respiratory System

Lung	A																									0	
Nose	A																										0
Trachea	A																										0

Special Senses System

NONE

Urinary System

Kidney	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Casts Protein					1																					1	1.0
Hyaline Droplet											1										1					2	1.0
Inflammation, Chronic		1	2	1	1	1		1	1	1	1	1	1		1	1	1		1	1	2	1	1		1	20	1.1
Interstitialium, Fibrosis											2										2					2	2.0
Renal Tubule, Dilatation				2			2	1			2	2							1	2	2					8	1.8
Renal Tubule, Mineralization		1																								1	1.0
Renal Tubule, Regeneration				1	1	1	1	1				1				1			1	1	1					10	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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:08
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F0 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	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		
		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		
		3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
		9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		5	5	5	5	5	6	6	9	9	9	0	0	2	5	5	5	5	6	6	0	0	0	0	1	1		
		1	3	4	7	8	1	4	7	8	9	0	8	6	7	8	9	0	1	6	7	8	9	0	1	1		
																											*TOTALS	
Prostate, Ventral Lobe		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Inflammation, Chronic			1	1		1		2	1		1		1	2	2		1	1	1		1	1		2	2	16	1.3	
Inflammation, Suppurative										2				1													2	1.5
Rete Testes		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Seminal Vesicle		I	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	23	
Dilatation																			2								1	2.0
Malformation											X																1	
Testes		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	25	
Seminif Tub, Degeneration																						3		1			2	2.0
Hematopoietic System																												
NONE																												
Integumentary System																												
Mammary Gland		+	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Alveolus, Hyperplasia		1			2						1																3	1.3
Musculoskeletal System																												
NONE																												
Nervous System																												
NONE																												
Respiratory 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:08
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F0 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
	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
	9	9	9	9	9	9	9	0	0	0	0	0	0	0	1	1	1	1	1	2	2	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	0	0	0	0	1	1	1	1	1	1	1	1	2	2	2	2	2	
	5	5	5	5	5	6	6	9	9	9	0	0	2	5	5	5	5	6	6	0	0	0	1	
	1	3	4	7	8	1	4	7	8	9	0	8	6	7	8	9	0	6	7	8	9	0	1	
	*TOTALS																							

Special Senses System

NONE

Urinary 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:08
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F0 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
	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
	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	9	9	9	9	9	9	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	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	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
	5	5	6	6	6	6	9	0	1	1	1	1	1	6	6	6	6	6	6	1	1	1	1	1	1
	2	5	2	3	5	8	6	9	0	2	3	4	2	3	4	5	6	7	8	2	3	4	5	6	7
																								*TOTALS	

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

Parathyroid Gland

+

1

General Body System

NONE

Genital System

Coagulating Gland

+ + + + + + + + I + + + + M + + + + I + + + +

22

Epididymis

+ +

25

Infiltration Cellular, Lymphocyte

1 1

2 1.0

Prostate

+ + +

4

Prostate, Dorsal Lobe

+ +

25

Inflammation, Chronic

1 2 1 1 2 1 1 2 1 2 1 2 1 1 2 2

6 1.3

Inflammation, Suppurative

1 2 1 2 1 3 1

7 1.6

Prostate, Ventral Lobe

+ +

25

Inflammation, Chronic

2 1 1 1 1 1 1 1 1 1 2 1 2 1 2 1 1 2 2

19 1.3

Inflammation, Suppurative

2 1

2 1.5

Rete Testes

+ + + + + + + + + M + + + + + + + + + + + + +

24

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:09
 First Dose M/F: NA / NA
 Lab: NCTR

| CD Rat Male
F0 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 | *TOTALS |
|-------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|-------|---------|
| | 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 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Seminal Vesicle | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | |
| Testes | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | |
| Seminif Tub, Degeneration | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 1.0 | |
| Hematopoietic System | | 5 | 5 | 6 | 6 | 6 | 6 | 9 | 0 | 1 | 1 | 1 | 1 | 6 | 6 | 6 | 6 | 6 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| NONE | | 2 | 5 | 2 | 3 | 5 | 8 | 6 | 9 | 0 | 2 | 3 | 4 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 2 | 3 | 4 | 5 | | |
| Mammary Gland | | + | + | + | + | + | + | | | | | | | | | | | | | | | | | 23 | | |
| Alveolus, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Cortex, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:09
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F0 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 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | 9 | 9 | 9 | 9 | 9 | 9 | 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 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | 5 | 5 | 6 | 6 | 6 | 6 | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 7 | 7 | 7 | 7 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | | |
| | 6 | 9 | 0 | 6 | 7 | 9 | 1 | 5 | 6 | 7 | 8 | 9 | 9 | 0 | 1 | 1 | 2 | 3 | 4 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | X | X | | | | | | | | | | 2 | |
| Inflammation, Chronic | 1 | 1 | | | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 19 | 1.0 |
| Malformation | X | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Necrosis | | | | | | | 2 | | | | | | | | | | | 1 | | | 1 | | 1 | | 4 | 1.3 |
| Vacuolization Cytoplasmic | | 1 | | | 1 | 1 | | | | | | | 1 | | | | 1 | | 1 | 1 | | | 1 | | 8 | 1.0 |
| Mesentery | | | | | | | | | | | + | | | | | | | | | | | | | | 1 | |
| Fat, Inflammation, Chronic | | | | | | | | | | | 4 | | | | | | | | | | | | | | 1 | 4.0 |

Cardiovascular System

NONE

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Accessory Adrenal Cortical Nodule | | | | | X | | | | | | | | | | | | | | | | | | | | 1 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Pars Distalis, Cyst, Multiple | X | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Inflammation, Chronic | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | | 2 | 1.0 |

General Body System

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:09
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F0 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 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 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 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 5 | 5 | 6 | 6 | 6 | 6 | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 7 | 7 | 7 | 7 | 7 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| | 6 | 9 | 0 | 6 | 7 | 9 | 1 | 5 | 6 | 7 | 8 | 9 | 9 | 0 | 1 | 2 | 3 | 4 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |
| | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |

| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|--------|
| Genital System | | | | | | | | | | | | | | | | | | | | | | | | | |
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Hypospermia | | | | | | | | | | | | | | 4 | | | | | | | | | | | 1 4.0 |
| Preputial Gland | | | | | | | | | | | | | | | | | | | | | | | + | | 1 |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | 4 | | 1 4.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | 4 | | 1 4.0 |
| Prostate | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Prostate, Dorsal Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Inflammation, Chronic | | | | | 2 | | 1 | | | | | | 2 | 1 | | 1 | 1 | | 2 | | 1 | | | 1 1 | 10 1.3 |
| Inflammation, Suppurative | | | | 3 | 1 | 2 | 1 | 1 | 1 | | | | 1 | 1 | 1 | 2 | 1 | | 2 | | 1 | | 2 | 1 1 | 16 1.4 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Inflammation, Chronic | 1 | | | 1 | 2 | 1 | 1 | | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | | 1 2 | 17 1.2 |
| Inflammation, Suppurative | | | | | 2 | | | | | | | | | | | | | | | | | | 2 | | 2 2.0 |
| Rete Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Seminal Vesicle | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Dilatation | | | | | 2 | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |
| Seminif Tub, Degeneration | | | | | | | | 1 | | | | | | | | 4 | | | | | | | | | 2 2.5 |

Hematopoietic System

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:09
 First Dose M/F: NA / NA
 Lab: NCTR

| CD Rat Male
F0 500 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 | 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 | | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | | |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | | 0 | 0 | 0 | 0 | 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 | 2 | 2 | 2 | 2 | | | |
| | | 5 | 5 | 6 | 6 | 6 | 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| | | 6 | 9 | 0 | 6 | 7 | 9 | 1 | 5 | 6 | 7 | 8 | 9 | 9 | 0 | 1 | 2 | 3 | 4 | 8 | 9 | 0 | 1 | | | |
| Bone Marrow | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | | |
| Spleen | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | | |
| Adventitia, Inflammation, Chronic | | | | | | | | | | | | | | | 1 | | | | | | | 1 | 2 1.0 | | | |
| Capsule, Fibrosis | | | | | | | | | | | | | | | | | | | 2 | | | | 1 2.0 | | | |
| Capsule, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | 1 | | 1 1.0 | | | |
| Pigmentation | | | | | | | | 1 | | | | 1 | | | 1 | 2 | | | 1 | 2 | | 1 | 1 | 2 | 9 1.3 | |
| Thymus | | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | 23 | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Alveolus, Hyperplasia | | | | | 1 | | | | | | | | | | 2 | | | 1 | 2 | | 2 | | | 5 1.6 | | |
| Duct, Hyperplasia | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 1.0 | | |
| Skin | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:09
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F0 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 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 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 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 5 | 5 | 6 | 6 | 6 | 6 | 1 | 1 | 1 | 1 | 1 | 1 | 6 | 7 | 7 | 7 | 7 | 7 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| | 6 | 9 | 0 | 6 | 7 | 9 | 1 | 5 | 6 | 7 | 8 | 9 | 9 | 0 | 1 | 2 | 3 | 4 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

Urinary System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Casts Protein | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 1.0 |
| Inflammation, Chronic | 1 | 1 | | | 1 | 1 | | | | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 2 | 1 | | | 1 | 1 | 18 1.1 |
| Renal Tubule, Dilatation | 1 | | | | 1 | 1 | 1 | 1 | | | | | | 1 | 1 | | | | | 1 | | | | | 8 1.0 |
| Renal Tubule, Regeneration | 1 | | | | | | | | | | | | 1 | 1 | 1 | | | | | 1 | 1 | | | 1 | 7 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:09
 First Dose M/F: NA / NA
 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 | *TOTALS | | |
|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|---|--|
| | 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 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 3 | 2 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | | 7 | 7 | 7 | 7 | 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 3 | 4 | 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 | |

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 | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | 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

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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:10
 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 | |
| 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 | 26 | |
| | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | 26 |
| ANIMAL ID | 9 | 9 | 9 | 9 | 9 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 26 | |
| 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 | | 26 |
| 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 | 26 | |
| ANIMAL ID | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | 26 |
| ANIMAL ID | 7 | 7 | 7 | 7 | 7 | 1 | 1 | 1 | 1 | 1 | 1 | 8 | 8 | 8 | 9 | 9 | 9 | 0 | 0 | 3 | 4 | 4 | 4 | 26 | |
| ANIMAL ID | 3 | 4 | 5 | 6 | 7 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 7 | 8 | 9 | 0 | 1 | 2 | 6 | 7 | 9 | 2 | 3 | | 26 |
| 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 | 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 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:10
 First Dose M/F: NA / NA
 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 | | | | | | |
| | | 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 | | | | | | | |
| | | 9 | 9 | 9 | 9 | 9 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | | | | | | | |
| Mammary Gland | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 26 | | | | |
| Alveolus, Hyperplasia | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 1 | 1.0 | | | | |
| Skin | | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | | | 26 | | | | |
| Musculoskeletal System | | 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 | | | | |
| Bone, Femur | | 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 | | | 26 | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 26 |
| Casts Protein | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Inflammation, Chronic | | 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 | 1.0 |
| Renal Tubule, Regeneration | | 1 | | | | 1 | 1 | | | | | 1 | | | | | | | | | 1 | 1 | | | | | | | | 6 | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:10
 First Dose M/F: NA / NA
 Lab: NCTR

**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 | 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 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 3 | 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 | 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 | 4 |
| | 7 | 7 | 8 | 8 | 8 | 2 | 2 | 2 | 2 | 2 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 1 | 4 | 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 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

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 |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:10
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1 5 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 | | 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 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 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 | 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 | 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 | 5 | 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 | 1 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rete Testes | + | | | | | | | | | | | | | | | | | | | | | | | | | 25 | | |
| Seminal Vesicle | + | | | | | | | | | | | | | | | | | | | | | | | | | 25 | | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | |
| Testes | + | | | | | | | | | | | | | | | | | | | | | | | | | 25 | | |
| Seminif Tub, Degeneration | 4 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2 | 2.5 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | | | | | | | | | | | | | | | | | | | | | | | | | 24 | | |
| Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1.0 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:10
 First Dose M/F: NA / NA
 Lab: NCTR

**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 | |
| 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 | 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 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 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 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS |
| 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 | | 1 | | | | 1 | 2 | 2 | | | | | | | | | | 2 | | 2 | | | | 6 1.7 | |
| Renal Tubule, Mineralization | | | | | | | | | | 1 | | 1 | | | | | | | | | | | 4 | 3 2.0 | |
| Renal Tubule, Regeneration | | | | | | 1 | 1 | | | | | | | | | | | | | | 1 | 1 | 1 | 1 6 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:10
 First Dose M/F: NA / NA
 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 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 |
| | 9 | 9 | 9 | 9 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 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 | 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 | 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 | 1.0 |
| 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:10
 First Dose M/F: NA / NA
 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 | |
| | 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 | |
| | 9 | 9 | 9 | 9 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 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 | |
| | 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 | 1 | 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 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS |
| Rete Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | 23 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Seminif Tub, Degeneration | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Alveolus, Hyperplasia | | | | | | | | | | | | | 1 | 1 | | | | | | | | | 1 | | 3 1.0 |
| Duct, Hyperplasia | | | | | | | | | | | | | | | | | | 1 | 1 | | | | | | 2 1.0 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:11
 First Dose M/F: NA / NA
 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 | | | |
| | 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 | | | |
| | 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 | | | |
| 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 | 3 | 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 | 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 | 3 | 3 | 3 | 0 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | 1 | 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 | 1.0 | |
| Pelvis, Dilatation | | | | | | | | 2 | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Renal Tubule, Dilatation | | | | | | | | | | | | 3 | | | | | | | | | | | | | | 2 | 2.5 | |
| Renal Tubule, Mineralization | | | | | 1 | 1 | | | | | | | 1 | 1 | 1 | | | | | | 1 | 1 | 1 | 1 | 1 | 8 | 1.0 | |
| Renal Tubule, Regeneration | | | | 1 | 1 | 1 | | | | | | | | | | | 1 | 1 | | | | | | 1 | 1 | 1 | 8 | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:11
 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 | 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 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 6 | 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 | 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 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:11
 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 | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 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 |

| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|-----|-----|-----|----|-----|----|----|----|--|
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 2 | 1.0 | | | | | | | | | | | | | | | | | | | | |
| Preputial Gland | | | | | | | | | | | | | | | | | | | | | | | | | + | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | 1 | 2.0 | | | | | | | | | | | | | | | | | | | | |
| Prostate | | | | | | | | | | | | | | | | | | | | | | | | | | + | M | + | + | 3 | | | | | | | | | | | | | | | | | | |
| Prostate, Dorsal Lobe | | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | | 1 | | 2 | | 1 | 2 | | | 1 | 1 | 1 | 9 | 1.3 | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | | 1 | 2 | 2 | 1 | 4 | 2 | | | 2 | 2 | | 2 | | 1 | 1 | 1 | 13 | 1.8 | | | | |
| Prostate, Ventral Lobe | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1 | | 1 | | 2 | 1 | 2 | 1 | | 1 | 1 | | 1 | 1 | 1 | 13 | 1.2 | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | | | | 2 | | 3 | 1.3 | | | | | | |
| Rete Testes | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Seminal Vesicle | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | 2 | | | | | | | 2 | | 3 | 2.0 | | | | | | | |
| Testes | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Seminif Tub, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | | | | 2 | 1.0 | | | | | | | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | | |
| Spleen | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | | |
| Hyperplasia, Stromal | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | | | | | | 2 | 1.0 | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | 1 | | 1 | | 1 | | | | | | 5 | 1.0 | | | | | | | | |
| Thymus | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | 1 | 2.0 | | | | | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:11
 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 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 3 | 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 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Alveolus, Hyperplasia | | | 1 | | | | | 3 | | | | | | | 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

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:11
 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 | 6 | 5 | 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 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | 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 | 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 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 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 | 1 | 2 | 22 | 1.1 |
| Renal Tubule, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 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 | 1.0 | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:11
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F2 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 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 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 7 | 7 | 7 | 8 | 8 | 8 | 1 | 2 | 2 | 2 | 2 | 5 | 6 | 6 | 9 | 9 | 1 | |
| | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 7 | 8 | 9 | 0 | 1 | 2 | 9 | 0 | 1 | 2 | 3 | 9 | 0 | 1 | 2 | 6 | 7 | 4 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Inflammation, Chronic | 1 | 1 | | 1 | 1 | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | | 1 | 1 | 1 | 18 1.0 |
| Malformation | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Necrosis | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 1.0 |
| Vacuolization Cytoplasmic | | | | | 1 | | | | | | | | | 1 | | | | | 1 | | | | | | 3 1.0 |

Cardiovascular System

NONE

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | X | | | | | X | | | | | | 2 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Pars Distalis, Cyst | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Pars Distalis, Cyst, Multiple | | | | | | X | X | | | | | | | | | | | | | | | | | | 2 |
| Pars Distalis, Vacuolization Cytoplasmic | | | | | | 2 | 2 | 1 | | | | | | | | | | | | | | | | | 3 1.7 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |

General Body System

NONE

Genital System

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:12
 First Dose M/F: NA / NA
 Lab: NCTR

| CD Rat Male
F2 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 | | |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Coagulating Gland | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 24 | |
| Epididymis | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 25 | |
| Infiltration Cellular, Lymphocyte | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 4 | 1 | 1.0 |
| Prostate | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 7 | 7 | 7 | 8 | 8 | 8 | 1 | 2 | 2 | 2 | 2 | 5 | 6 | 6 | 9 | 9 | 5 | |
| Prostate, Dorsal Lobe | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 7 | 8 | 9 | 0 | 1 | 2 | 9 | 0 | 1 | 2 | 3 | 9 | 0 | 1 | 2 | 6 | 25 | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | 7 | 1.3 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1.3 |
| Prostate, Ventral Lobe | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | | | | | | | | | | | | 25 | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | 19 | 1.5 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | 6 | 1.7 |
| Rete Testes | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | | | | | | | | | | | | 25 | |
| Seminal Vesicle | | | | | | | | | | | | | | | | | | | | | | | | 25 | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Testes | | | | | | | | | | | | | | | | | | | | | | | | 25 | |
| Seminiif Tub, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.7 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | | | | | | | | | | | | | | | | | | | | | | | 25 | |
| Spleen | | | | | | | | | | | | | | | | | | | | | | | | 25 | |
| Adventitia, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | 5 | 1.4 |
| Thymus | | | | | | | | | | | | | | | | | | | | | | | | 25 | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:12
 First Dose M/F: NA / NA
 Lab: NCTR

| CD Rat Male
F2 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 | | | | |
|-------------------------------|-------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|--|
| | 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 | 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 | | | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | | |
| | | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 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 | | | |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | | | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 7 | 7 | 7 | 8 | 8 | 8 | 1 | 2 | 2 | 2 | 2 | 2 | 5 | 6 | 6 | 6 | 9 | 1 | 1 | | | |
| | | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 7 | 8 | 9 | 0 | 1 | 2 | 9 | 0 | 1 | 2 | 3 | 9 | 0 | 1 | 2 | 6 | 7 | 4 | | | |
| | | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Alveolus, Hyperplasia | | | | | | | | | | | | 2 | | | | | | | | | | | | | 2 | | 2 | 2.0 | |
| Skin | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Inflammation, Chronic | | 1 | 1 | | 1 | 1 | 1 | 1 | | 2 | 1 | 1 | 1 | | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 20 | 1.1 | | |
| Renal Tubule, Dilatation | | | | | 2 | 1 | | 1 | | 2 | | 1 | | | 2 | | 2 | | | | | | | 3 | | 8 | 1.8 | | |
| Renal Tubule, Regeneration | | 1 | | | 1 | 1 | | | | | | | | | 1 | | 1 | | | | 1 | 1 | 1 | | | 8 | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:12
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F2 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 | 0 | 3 | 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 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | |
| | 4 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | 8 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 6 | 6 | 6 | 6 | 6 | 9 | 1 | |
| | 0 | 1 | 2 | 3 | 4 | 3 | 4 | 5 | 6 | 7 | 8 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 3 | 4 | 5 | 6 | 7 | 8 | 5 |

***TOTALS**

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Prostate | | | + | | | | + | + | | | | | + | + | + | + | | + | | | | | | | 9 |
| Prostate, Dorsal Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Inflammation, Chronic | 2 | | | 1 | | | | | | | | 1 | | | | | | | | | | | 1 | | 4 1.3 |
| Inflammation, Suppurative | 2 | 1 | | | 1 | | | | 2 | | | 1 | | | | | | | | | | 2 | | | 6 1.5 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Inflammation, Chronic | 2 | 1 | | 2 | 2 | 1 | | | | 2 | 2 | 2 | | | | 2 | | 2 | | 1 | 1 | 1 | 2 | 1 | 15 1.6 |
| Inflammation, Suppurative | 2 | | | | | | | | | | | 2 | | | | | | | | | | | | | 2 2.0 |
| Rete Testes | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | M | 22 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:12
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F2 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 | 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 | 1 | 1 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 | 0 | 3 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | | |
| | 4 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | 8 | 8 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 6 | 6 | 6 | 6 | 6 | 6 | 9 | 1 | 1 | 1 | | |
| | 0 | 1 | 2 | 3 | 4 | 3 | 4 | 5 | 6 | 7 | 8 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 3 | 4 | 5 | 6 | 7 | 8 | 5 | | | | | |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Capsule, Fat, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:12
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F2 5 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 | | | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | | | |
| | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 | 0 | 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 | | | | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | | | | |
| | 4 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | 8 | 8 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 6 | 6 | 6 | 6 | 9 | 1 | | | | |
| | 0 | 1 | 2 | 3 | 4 | 3 | 4 | 5 | 6 | 7 | 8 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 3 | 4 | 5 | 6 | 7 | 8 | 5 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Casts Protein | | | | 1 | | | | 1 | | | | | | | | | | | | | | | | | 2 | 1.0 | | |
| Cortex, Cyst | | | | | X | | | | | | | | | | | | | | | | | 1 | | | | | | |
| 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 | 1.0 | | | | | | | |
| Renal Tubule, Mineralization | | | | 1 | | | | | | | | | | | | | | | | | 1 | 1.0 | | | | | | |
| Renal Tubule, Regeneration | | | | | | | | | | | | | 1 | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:12
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F2 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 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------|---|
| | 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 5 |
| | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 4 | 3 | 2 | 9 | 9 |
| 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 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 |
| | 4 | 4 | 4 | 4 | 8 | 9 | 9 | 9 | 9 | 3 | 3 | 3 | 3 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 9 | 0 | 0 | 1 | 1 |
| | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 9 | 0 | 1 | 6 |
| | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 24 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Hypospermia | 3 | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Prostate | | | | | | + | | | | | | | | | | + | + | | + | | | | | | | 5 |
| Prostate, Dorsal Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Epithelium, Hyperplasia | | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 1.0 |
| Inflammation, Chronic | 2 | 1 | | 1 | | | | 1 | | | | 1 | | | | | | | | | | 1 | | | | 6 1.2 |
| Inflammation, Suppurative | 2 | 1 | | | | | | 2 | 2 | | | 1 | 2 | | | | | 1 | | | | | 2 | | | 8 1.6 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Inflammation, Chronic | 2 | 1 | 2 | 2 | | | 2 | | 1 | | 1 | | 2 | 2 | 1 | | | | | | 2 | 2 | 1 | 1 | 1 | 15 1.5 |
| Inflammation, Suppurative | | | 1 | | | 1 | | 2 | 2 | | 1 | | | | | | | 1 | | | | | | | | 6 1.3 |

* ..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: 99930-91
Test Type: MULTIGEN CHRONIC
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: 10/23/2014
Time Report Requested: 03:19:12
First Dose M/F: NA / NA
Lab: NCTR

| CD Rat Male
F2 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 | | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 5 | | |
| | ANIMAL ID | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 4 | 3 | 2 | 9 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | | |
| | 4 | 4 | 4 | 4 | 8 | 9 | 9 | 9 | 9 | 9 | 3 | 3 | 3 | 3 | 6 | 6 | 7 | 7 | 7 | 7 | 9 | 0 | 0 | 1 | 7 | | |
| | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 9 | 0 | 1 | 6 | | |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rete Testes | + | | | | | | | | | | | | | | | | | | | | | | | | 25 | | |
| Dilatation | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Seminal Vesicle | + | | | | | | | | | | | | | | | | | | | | | | | | 25 | | |
| Inflammation, Chronic | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Testes | + | | | | | | | | | | | | | | | | | | | | | | | | 25 | | |
| Seminif Tub, Degeneration | 4 | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.0 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3.0 |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | | | | | | | | | | | | | | | | | | | | | | | | 25 | | |
| Alveolus, Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.3 |
| Duct, Hyperplasia | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:12
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F2 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 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------|---|
| | 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | |
| | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 4 | 3 | 2 | 9 | |
| 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 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | |
| | 4 | 4 | 4 | 4 | 8 | 9 | 9 | 9 | 9 | 3 | 3 | 3 | 3 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 9 | 0 | 0 | 1 | |
| | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 9 | 0 | 1 | 6 |
| | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |

Special Senses System

NONE

Urinary System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Capsule, Fat, Cyst | | | | | | | | | | X | | | | | | | | | | | | | | | 1 |
| Inflammation, Chronic | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | 1 | | | 1 | | | 1 | | 16 1.0 |
| Renal Tubule, Dilatation | 3 | 2 | | | | | 2 | | | | | | | | | 1 | 1 | | | | | | | | 5 1.8 |
| Renal Tubule, Mineralization | | | | | | | 1 | | | | 1 | | | | | 1 | | | | | | | 1 | | 4 1.0 |
| Renal Tubule, Regeneration | | 1 | 1 | 1 | 1 | | | | 1 | | | | | | | 1 | | | 1 | 1 | | | | | 8 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:13
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F2 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 0 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 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 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | |
| | 4 | 5 | 5 | 5 | 5 | 5 | 9 | 9 | 9 | 9 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 7 | 7 | 7 | 7 | 8 | 8 | 1 | |
| | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 7 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

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 | 22 | 1.0 |
| Necrosis | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Vacuolization Cytoplasmic | | | | | | | 1 | | | | | | | | | | | | | | | 1 | | | 2 | 1.0 |

Cardiovascular System

NONE

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|---|-----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Pars Distalis, Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|---|---|-----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | | | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | | | |
| Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:13
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F2 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 | 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 | | | |
| | 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 | | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 0 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 9 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | | | | |
| | 4 | 5 | 5 | 5 | 5 | 5 | 9 | 9 | 9 | 9 | 3 | 3 | 3 | 3 | 4 | 4 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 1 | | | | |
| | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 7 | *TOTALS | | | |
| Hypospermia | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | 1 | 4.0 | |
| Prostate | | | | | | + | | | | | + | | | | + | + | + | | + | | | | | | | 6 | | | |
| Prostate, Dorsal Lobe | | | | | | | | | | | | | | | | | | | | | | | | | | 25 | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | 2 | 1 | | | | 6 | 1.2 | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | 1 | | 2 | | 7 | 1.3 | | |
| Prostate, Ventral Lobe | | | | | | | | | | | | | | | | | | | | | | | | | | 25 | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | 17 | 1.4 | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | 1 | | | | 5 | 1.2 | | |
| Rete Testes | | | | | | | | | | | | | | | | | | | | | | | | | | 20 | | | |
| Seminal Vesicle | | | | | | | | | | | | | | | | | | | | | | | | | | 25 | | | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | | |
| Testes | | | | | | | | | | | | | | | | | | | | | | | | | | 24 | | | |
| Seminif Tub, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | | | | | | | | | | | | | | | | | | | | | | | | | 25 | | | |
| Spleen | | | | | | | | | | | | | | | | | | | | | | | | | | 25 | | | |
| Hyperplasia, Stromal | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1.0 | | |
| Thymus | | | | | | | | | | | | | | | | | | | | | | | | | | 25 | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | | | | | | 25 | | | |
| Alveolus, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 18 | 1.4 | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:13
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F2 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 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 0 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 0 | 9 | | |
| 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 | | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | | |
| | 4 | 5 | 5 | 5 | 5 | 5 | 9 | 9 | 9 | 9 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 1 | | |
| | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 7 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |
| Duct, Hyperplasia | 1 | | | | | | | | | | 2 | 2 | 2 | 1 | | | 1 | | | | 1 | | 2 | 1 | 1 | 10 | 1.4 |
| 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 | |
| Cortex, Cyst | | | X | | | | | | | | | | X | | | | | | | | | | | | | 2 | |
| Inflammation, Chronic | | | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 23 | 1.0 | |
| Pelvis, Dilatation | | | | | | | | | | | | | | | | 2 | | | | | | | | | | 1 | 2.0 |
| Renal Tubule, Dilatation | 1 | | 2 | | | 1 | | 1 | | | | | | | | | | 2 | 1 | | | | | | | 6 | 1.3 |
| Renal Tubule, Mineralization | | | 1 | 1 | | | | | | | | | | | | 1 | | | | 1 | 1 | | | 1 | | 6 | 1.0 |
| Renal Tubule, Regeneration | 1 | | 1 | | 1 | | | | | | 1 | 1 | 1 | | 1 | | | | | | | 1 | 1 | | | 9 | 1.0 |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | + | | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:13
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 5 |
| | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 9 |
| 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 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 |
| | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 4 | 4 | 4 |
| | 0 | 1 | 2 | 3 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 1 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| 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 | 22 | 1.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.0 |

Cardiovascular System

NONE

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pars Distalis, Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |

General Body 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: 99930-91
Test Type: MULTIGEN CHRONIC
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: 10/23/2014
Time Report Requested: 03:19:13
First Dose M/F: NA / NA
Lab: NCTR

| CD Rat Male
F3 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 | 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 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | |
| | | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 2 | 2 | 1 | 1 | 1 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 9 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | |
| | | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | 8 | 9 | 4 | |
| | | 0 | 1 | 2 | 3 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Degeneration | | | | | | | | | | | | | | | | | | | | | 3 | | 1 | 3.0 |
| Hypospermia | | | | | | | | | | | | | | | | | | | | | 4 | | 1 | 4.0 |
| Infiltration Cellular, Lymphocyte | | | | | 1 | | | | | | | | 1 | | | 1 | | | | | | | 3 | 1.0 |
| Prostate | | + | + | | | | + | | | | | | | | | | | | | | | | 3 | |
| Prostate, Dorsal Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Epithelium, Hyperplasia | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | 1.0 |
| Inflammation, Chronic | | | | 1 | | | | | | 2 | 1 | | | | | 1 | | 1 | | 1 | | 1 | 8 | 1.1 |
| Inflammation, Suppurative | | | | 2 | 1 | 2 | | | | 2 | | | | | | 1 | | | | | | | 5 | 1.6 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Inflammation, Chronic | 2 | | | 2 | | 1 | | 1 | | 1 | 2 | 2 | 1 | 1 | 1 | 1 | | 1 | | 1 | 2 | 1 | 18 | 1.4 |
| Inflammation, Suppurative | | | | 1 | | | | | | | | | | | | | | | | | 1 | 1 | 3 | 1.0 |
| Rete Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 24 | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | 4 | | 1 | 4.0 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Dilatation | 2 | 2 | | 2 | | | | | | | | | | | | | | | | | | | 3 | 2.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Seminiif Tub, Degeneration | | | | | | | | | | | | | | | | | | | | 1 | | 4 | 2 | 2.5 |

Hematopoietic System

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:13
 First Dose M/F: NA / NA
 Lab: NCTR

| CD Rat Male
F3 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 | | |
| Spleen | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Adventitia, Inflammation, Chronic | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | 1 2.0 |
| Pigmentation | | | | | | | | | | | | | | | 1 | | | | 1 | | | | | | | | | 2 1.0 |
| Thymus | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Epithel Cell, Hyperplasia | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | 1 2.0 |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Alveolus, Hyperplasia | | | | | | 1 | | | | | | | | | | 1 | | | | | | | | 2 | 1 | 4 | 1.3 | |
| Skin | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | 24 | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:14
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 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 | 21 | 1.1 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 8 | 1.9 |
| Renal Tubule, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | 8 | 1.1 |
| Renal Tubule, Regeneration | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:14
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/5PPM TO CTL

| 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 1 | 2 | 1 | 1 | 0 | 0 | 4 | 4 | 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 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 9 | 9 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 6 | 9 | 9 | 9 | 9 | 9 | 4 | 4 | 4 |
| | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 7 | 8 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 3 | 4 | 5 | |
| | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Ductus Deferens | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Ectasia | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Hypospermia | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Prostate | | | | + | + | | + | | | | | | | | | | | | | | | | | | 5 |
| Prostate, Dorsal Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Suppurative | 1 | 1 | | | | | | | | 1 | | 1 | 1 | 2 | | 1 | | | | | | | | | 8 |
| Lymphatic, Ectasia | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:14
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F3/5PPM TO CTL**

| | 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 | *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 | | |
| Inflammation, Chronic | 1 | | 1 | | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | | 1 | 1 | 19 | 1.2 |
| Inflammation, Suppurative | | | | | | | | | | | | 1 | | | | | | 1 | | 1 | | | 1 | | 4 | 1.0 |
| Rete Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Dilatation | | | | | | | | | | | | | | 4 | | | | | | 2 | | | | | 2 | 3.0 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Lymphatic, Ectasia | | | | | | | | | | | | | | | | | | | | 4 | | | | | 1 | 4.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Seminif Tub, Degeneration | | | | | | | | | | | | | | | 4 | | | | | | | | | | 1 | 4.0 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Alveolus, Hyperplasia | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Vertebra | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Malformation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:14
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F3/5PPM TO CTL**

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 1 | 2 | 1 | 1 | 0 | 0 | 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 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 9 | 9 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 6 | 9 | 9 | 9 | 9 | 9 |
| | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 7 | 8 | 4 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 2 | 3 | 4 | 5 |

***TOTALS**

Special Senses System

NONE

Urinary System

Kidney + 1

Capsule, Fat, Cyst 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:14
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/100PPM TO CTL

| 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 1 | 1 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 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 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 |
| | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 | 9 | 9 | 9 | 9 | 0 | 0 | 0 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 6 | 7 | 8 | 9 | 0 | 1 | 2 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Prostate | | | | | | | | | | + | | | | | | + | | | | | | | | | 3 |
| Prostate, Dorsal Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Inflammation, Chronic | 1 | | | | 2 | 1 | | | | | | | | | | | | | | | | | | | 2 |
| Inflammation, Suppurative | | | 1 | | 2 | | 2 | | | | | | | | | | | | 1 | 1 | 2 | | 1 | | 3 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Inflammation, Chronic | | | | | 1 | | 1 | | 1 | 1 | | | | | | | | | 2 | 1 | 2 | 1 | 2 | 2 | 2 |
| Inflammation, Suppurative | | | | | 1 | | | | | | | | | | | | | | | | | | | | 2 |
| Rete Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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: 99930-91
Test Type: MULTIGEN CHRONIC
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: 10/23/2014
Time Report Requested: 03:19:14
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Male
F3/100PPM TO CTL

| 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 1 | 1 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 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 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 |
| | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 | 5 | 9 | 9 | 9 | 0 | 0 | 0 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 6 | 7 | 8 | 9 | 0 | 2 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Seminif Tub, Degeneration | | | | | | | | | | | | | | | | | | 4 | 1 | | | | | 2 2.5 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Alveolus, Hyperplasia | | | | | | | 1 | | | | | | | | | | | 1 | 1 | | | 1 | 1 | 5 1.0 |
| Duct, Hyperplasia | | | | | | | | | | 1 | | | | | | | | | | | | | | 1 1.0 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:14
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F3/500PPM TO CTL**

| 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 | 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 | 1 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 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 | 0 | 0 | 0 | 0 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 8 | 8 | 8 | 9 | 9 | 9 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 6 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 |
| | 7 | 8 | 9 | 0 | 1 | 2 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 0 | 3 | 4 | 5 | 6 | 6 | 7 | 7 | 7 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| 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 | 23 | 1.0 |
| Necrosis | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | 1 | 2.0 |

Cardiovascular System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
|--------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Pars Distalis, Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |

General Body System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1.0 |
| Prostate | | | | + | | | + | | | | + | | | | + | | | | | | | | | | | | + | | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:15
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/500PPM TO CTL

| | 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 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 2 | 1 | 1 | 1 | 1 | 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 | | |
| | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | | |
| | 8 | 8 | 8 | 9 | 9 | 9 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 6 | 0 | 0 | 0 | 0 | 4 | 4 | |
| | 7 | 8 | 9 | 0 | 1 | 2 | 8 | 9 | 0 | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 0 | 3 | 4 | 5 | 6 | 6 | 7 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |
| Prostate, Dorsal Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Inflammation, Chronic | | | | | 1 | | 1 | | | | | | 1 | | | | | 1 | 1 | | 1 | | | 1 | 7 | 1.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | 1 | | | 1 | | | 2 | 1.0 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Inflammation, Chronic | 1 | 1 | | 1 | 1 | | 2 | 1 | | 1 | 2 | 1 | 1 | | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | | 19 | 1.3 |
| Inflammation, Suppurative | | | | | | | | | | | 1 | | | 1 | | 1 | | | | | | | | | 3 | 1.0 |
| Rete Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | 24 | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | 2 | | 1 | 2.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Semini Tub, Degeneration | | 1 | | | 1 | | 1 | | | | | | | | | | | | | | | | | | 3 | 1.0 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Hyperplasia, Stromal | | | | 1 | | | | | | | | | 1 | | | | | | | | | | | | 2 | 1.0 |
| Pigmentation | | | | | | | | | | | 2 | | | 1 | 1 | | | 1 | | | | | | | 4 | 1.3 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | I | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 | |
| Alveolus, Hyperplasia | | | | 1 | | | | | | | 2 | | | | 1 | | | | 3 | | | | | | 4 | 1.8 |
| Duct, Hyperplasia | | | | | | | | | | 1 | | | | 1 | | | | 2 | | | 1 | | | | 4 | 1.3 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:15
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/500PPM TO CTL

| 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 2 | 1 | 1 | 1 | 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 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 8 | 8 | 8 | 8 | 9 | 9 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 6 | 0 | 0 | 0 | 4 | 4 |
| | 7 | 8 | 9 | 0 | 1 | 2 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 0 | 3 | 4 | 5 | 6 | 7 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | |

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 1.0

Inflammation, Chronic 18 1.0

Pelvis, Dilatation 2 1 2.0

Renal Tubule, Dilatation 1 1 1 2 2 4 1.5

Renal Tubule, Regeneration 13 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:15
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
 F4 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 4 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 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 | |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 3 | 3 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 9 | 9 | |
| | 4 | 5 | 6 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 5 | 6 | 7 | 8 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 3 | 4 |
| | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Inflammation, Chronic | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | | | | | 1 | | 1 | 1 | 1 | 1 | 18 | 1.0 |
| Necrosis | | | | | | | | | | | | 1 | 1 | | | | | | | | 1 | | | | 3 | 1.0 |
| Vacuolization Cytoplasmic | | | | | | | | 1 | | | | | | | | | 1 | | | 2 | | | | | 3 | 1.3 |

Cardiovascular System

NONE

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | X | | | | | | | | | 1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Hypospermia | | | | | | | | | | | | 4 | | | | | | | | | | | | | 1 | 4.0 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:15
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F4 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 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 4 | 3 | 2 | 2 | 2 | 1 | 1 | 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 | | |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | 3 | 3 | 3 | 7 | 7 | 7 | 7 | 7 | 8 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 9 | 9 | | |
| | 4 | 5 | 6 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 5 | 6 | 7 | 8 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 3 | 4 | |
| Prostate | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Prostate, Dorsal Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Inflammation, Chronic | | 1 | | 1 | 1 | | 1 | 2 | 2 | 1 | | | | | | | | | | | | | | 1 | 8 1.3 | |
| Inflammation, Suppurative | | 1 | | | | | | | | | | 2 | | | | | 2 | | | 1 | | | | | 4 1.5 | |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Inflammation, Chronic | 1 | 1 | 1 | 1 | 1 | | | | 2 | 1 | | | 3 | 2 | 1 | 2 | 1 | | 1 | 2 | 2 | 1 | | 1 | 2 | 18 1.4 |
| Inflammation, Suppurative | | | | | | | | | | | | 3 | | | | | | 1 | | | | 1 | 1 | | 4 1.5 | |
| Rete Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Dilatation | | | | | | | | | | | 3 | | | | | | | | | | | | | | 1 3.0 | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Seminif Tub, Degeneration | | | | 1 | | | | | | | 4 | | | | | | | | | | | | 1 | | 3 2.0 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Adventitia, Inflammation, Chronic | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | 2 1.0 | |
| Pigmentation | | 1 | | 1 | | 1 | | | | 1 | | | | | 1 | | | | | | | | 1 | | 6 1.0 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Alveolus, Hyperplasia | | 2 | | | | 1 | | 2 | | | | | | | | | | | | | | 1 | | | 4 1.5 | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:15
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F4 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 4 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 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 |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 3 | 3 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 9 | 9 |
| | 4 | 5 | 6 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 5 | 6 | 7 | 8 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 3 | 4 |
| | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |

Musculoskeletal System

Bone, Femur + 25

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

Kidney + 25

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|----|-----|-----|
| Inflammation, Chronic | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | | | | 1 | 1 | 18 | 1.1 | |
| Pelvis, Dilatation | | | | | | | | | | | | | 2 | | | | | | | | | | | | | 1 | 2.0 |
| Renal Tubule, Dilatation | | | | 2 | 1 | 1 | | 2 | 1 | 1 | | | | | 1 | 1 | 2 | 1 | 1 | | | 2 | 2 | | 13 | 1.4 | |
| Renal Tubule, Mineralization | | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Renal Tubule, Regeneration | | | | | 2 | | | | | | | 1 | | | | 1 | 1 | | 1 | 1 | | | | | 6 | 1.2 | |

* ..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
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically
 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:15
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F4/5PPM TO CTL**

| 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 2 | 2 | 1 | 1 | 1 | 4 | 4 | 4 | 1 | 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 | |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | |
| | 3 | 3 | 3 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | 1 | 2 | 2 | 2 | 2 | 6 | 6 | 6 | 6 | 6 | 9 | 9 | 9 | 1 | 1 |
| | 7 | 8 | 9 | 0 | 1 | 2 | 1 | 2 | 3 | 4 | 9 | 0 | 1 | 2 | 3 | 1 | 2 | 3 | 4 | 5 | 5 | 6 | 7 | 0 | 5 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

Alimentary System

Mesentery + 1
 Inflammation, Chronic Active 4 1 4.0

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Infiltration Cellular, Lymphocyte | | | 1 | | | | | | | | | | | | | | | | | | | 1 | | | 2 1.0 |
| Prostate | | | | + | | | + | + | | | + | | | | + | | | | | | | | + | + | 7 |
| Prostate, Dorsal Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Inflammation, Chronic | 1 | | | | | 1 | | | | 2 | | | | | | | | | | 1 | 1 | | | | 5 1.2 |
| Inflammation, Suppurative | | | 1 | | | 2 | | | | 1 | | | | | 2 | 1 | | | | | 2 | | | | 6 1.5 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Inflammation, Chronic | 2 | 1 | 1 | | 2 | 1 | | | | 1 | | 1 | 2 | 1 | 2 | | 2 | 2 | 2 | 2 | 1 | 1 | 2 | | 17 1.5 |
| Inflammation, Suppurative | | | | | | | | | 2 | | | 1 | 1 | | | | | | | | | | | | 3 1.3 |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:15
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F4/5PPM TO CTL**

| | 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 | | |
| 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 | 1 | *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 | | |
| Rete Testes | + | + | + | + | + | + | + | + | + | + | M | M | + | M | + | + | + | + | + | + | + | + | M | M | + | 20 | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Seminif Tub, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Alveolus, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 1.3 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:15
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F4/100PPM TO CTL**

| 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 1 | 1 | 1 | 1 | 0 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 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 |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | 2 | 2 | 2 | 2 | 6 | 6 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 0 |
| | 3 | 4 | 5 | 6 | 7 | 8 | 5 | 6 | 7 | 8 | 4 | 5 | 6 | 7 | 6 | 7 | 8 | 9 | 0 | 1 | 8 | 9 | 0 | 1 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | *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 1.0 | | |
| Penis | | | | + | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Prostate | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Prostate, Dorsal Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Inflammation, Chronic | 1 | | | | | | | 2 | | | | | | 1 | 1 | | | | | | 1 | | | | 6 1.2 | | |
| Inflammation, Suppurative | | | | | | | | 2 | 2 | | | | | 1 | 1 | 1 | | | | | | | | | 5 1.4 | | |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Inflammation, Chronic | 1 | 2 | 1 | 1 | 1 | 2 | 1 | | | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | | 1 | 1 | 1 | 2 | 1 | 1 | 23 1.3 |
| Inflammation, Suppurative | | | | | | | | | | 1 | | | | 2 | | 1 | 1 | 2 | | | | | | | | 5 1.4 | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:16
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F4/100PPM TO CTL**

| | 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 | *TOTALS | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | | |
| ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 0 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 5 | 5 | 5 | 4 | *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 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | | | |
| | 4 | 4 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | 2 | 2 | 2 | 2 | 6 | 6 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | | | |
| | 3 | 4 | 5 | 6 | 7 | 8 | 5 | 6 | 7 | 8 | 4 | 5 | 6 | 7 | 6 | 7 | 8 | 9 | 0 | 1 | 8 | 9 | 0 | 1 | | | |
| Rete Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Seminal Vesicle | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Seminif Tub, Degeneration | 1 | 1 | | | | | 1 | | | | 1 | | | | | | | | | | | | | | 4 | 1.0 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Alveolus, Hyperplasia | | | 2 | | | | 1 | | | | | | | | 1 | 1 | 1 | | | | 3 | | | | 6 | 1.5 | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:16
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F4/500PPM TO CTL

| 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 0 | 1 | 1 | 5 | 5 | 4 | 2 | 1 | 1 | 9 |
| 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 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 4 | 5 | 5 | 5 | 5 | 5 | 8 | 9 | 9 | 9 | 9 | 2 | 2 | 3 | 3 | 3 | 7 | 7 | 0 | 0 | 1 | 1 | 1 | 1 | |
| | 9 | 0 | 1 | 2 | 3 | 4 | 9 | 0 | 1 | 2 | 3 | 8 | 9 | 0 | 1 | 2 | 2 | 3 | 3 | 4 | 5 | 1 | 2 | 3 | 4 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

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 | 2 | 18 1.1 |
| Malformation | | | | | | | | | | | | | | | | | | | X | | | | | | 1 |
| Necrosis | | | | | | | | | | | | | | | | | | 1 | | | | | 2 | 2 1.5 | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 1.0 |

Cardiovascular System

NONE

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | X | | | | X | | 2 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Pars Distalis, Cyst, Multiple | | | | X | | | | | | | | | | | | | | | | | | | | | 1 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:16
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F4/500PPM TO CTL**

| | 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 | | |
| ANIMAL ID | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 0 | 1 | 1 | 5 | 5 | 4 | 2 | 1 | 1 | 9 | |
| | 0 | 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 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 4 | 5 | 5 | 5 | 5 | 5 | 8 | 9 | 9 | 9 | 9 | 2 | 2 | 3 | 3 | 3 | 7 | 7 | 0 | 0 | 0 | 1 | 1 | 1 | | |
| | 9 | 0 | 1 | 2 | 3 | 4 | 9 | 0 | 1 | 2 | 3 | 8 | 9 | 0 | 1 | 2 | 2 | 3 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 | 1.0 |
| Prostate | | | | | | | | | | | | | | | | | | | | | + | | | | 1 | |
| Prostate, Dorsal Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Inflammation, Chronic | | | 1 | | | | 1 | | | | | | 1 | 1 | | | 1 | | | | 1 | | | | 6 | 1.0 |
| Inflammation, Suppurative | | | 2 | | | | 2 | | | 1 | | | | 1 | 1 | | | | | | 1 | | | | 6 | 1.3 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Inflammation, Chronic | 1 | | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | | 1 | 1 | 1 | 1 | 23 | 1.4 |
| Inflammation, Suppurative | | | 1 | | | | | | | | | | | | | | | | | | 2 | | | | 2 | 1.5 |
| Rete Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | M | + | + | + | + | + | + | + | M | 22 | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Seminif Tub, Degeneration | | | | | | 1 | | | | | | | | | | 1 | | | | | | | | 1 | 3 | 1.0 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Pigmentation | 1 | | | | | 1 | 1 | 1 | | | 1 | | | | | 1 | | | | | 1 | 1 | 1 | 1 | 10 | 1.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Alveolus, Hyperplasia | | | 1 | | | 2 | | | | | 2 | | | 2 | | | 1 | | | | 2 | | | | 6 | 1.7 |

* ..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
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically
 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:16
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F4/500PPM TO CTL**

| | 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 | *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 | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | | | | | | | | | | | | | | | | | | | | | | | | + | 1 |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Casts Protein | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Cortex, Cyst | | | | X | | | | | | | | | | | | | | | | | | | | | 2 |
| Inflammation, Chronic | | | 1 | 1 | 1 | 1 | | | | | | | | | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 15 1.0 |
| Pelvis, Dilatation | | | 2 | | | | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Renal Tubule, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | 3 1.0 |
| Renal Tubule, Regeneration | | | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | 10 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:16
 First Dose M/F: NA / NA
 Lab: NCTR

| CD Rat Female
F0 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 | *TOTALS |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| | 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 | |
| | | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 8 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 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 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 2 | 2 | 2 | 2 | 3 | 7 | 7 | 7 | 7 | 8 | 8 | |
| | | 4 | 1 | 2 | 3 | 4 | 5 | 6 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 5 | 6 | 7 | 8 | 9 | 0 | 5 | 6 | 7 | 8 | 9 | |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|-----|
| Esophagus | + | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Dilatation | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Intestine Large, Cecum | + | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Intestine Large, Colon | + | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Intestine Small, Duodenum | + | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Intestine Small, Ileum | + | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Intestine Small, Jejunum | + | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | | | |
| Developmental Malformation | | | | | | | | | | | X | | | | | | | X | | X | | | | | | | 3 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Pancreas | + | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Salivary Glands | + | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Stomach, Forestomach | + | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Stomach, Glandular | + | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |

Cardiovascular System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|-----|
| Heart | + | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Cardiomyopathy | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:17
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F0 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 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 |
| | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 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 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 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 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 2 | 2 | 2 | 2 | 3 | 7 | 7 | 7 | 7 | 8 | 0 |
| | 4 | 1 | 2 | 3 | 4 | 5 | 6 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 5 | 6 | 7 | 8 | 9 | 0 | 5 | 6 | 7 | 8 | 9 | 0 |

***TOTALS**

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Bilateral, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | |
| Thyroid Gland | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| General Body System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Genital System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | |
| Diestrus | | | | | | X | X | | X | X | | | | | X | X | | | X | | | X | X | | | | 10 | |
| Estrus | | | | | | | | | | | | | | | | | | X | | | | | X | | | | 2 | |
| Metestrus | X | | | X | | | | | X | | | | | X | X | | | | X | | | | | | | | 6 | |
| Proestrus | | X | X | | X | | | X | | | X | X | X | | | | | | | | X | | | | | | 8 | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | |
| Decidual Reaction | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | X | | X | X | X | 24 | |
| Diestrus | | | | | | X | X | | X | X | | | | | X | X | | | X | | | X | | X | X | | 10 | |
| Estrus | | | | | | | | | | | | | | | | | | X | | | | | X | | | | 2 | |
| Infiltration Cellular, Eosinophil | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Metestrus | X | | | X | | | | | X | X | | | | X | X | | | | | X | | | | | | | 7 | |
| Proestrus | | X | X | | X | | | X | | | | | X | X | | | | | | | X | | | | | | 7 | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | |
| Diestrus | | | | | | X | X | | X | X | | | | | X | X | | | X | | | X | | X | X | | 10 | |
| Estrus | | | X | | | | | | | | | | | | | | | X | | | | | X | | | | 3 | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:17
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F0 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 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 |
| | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 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 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 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 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 2 | 2 | 2 | 2 | 2 | 3 | 7 | 7 | 7 | 7 | 8 | 8 |
| | 4 | 1 | 2 | 3 | 4 | 5 | 6 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 5 | 6 | 7 | 8 | 9 | 0 | 5 | 6 | 7 | 8 | 9 | 0 |

***TOTALS**

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Infiltration Cellular, Eosinophil | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Metestrus | X | | | X | | | | | X | X | | | X | X | | | | | X | | | | | | | | 7 | |
| Mucocyte, Hypertrophy | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Proestrus | | X | | | X | | | X | | | | | X | X | | | | | | X | | | | | | | 6 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | |
| Lymph Node, Mandibular | + | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymph Node, Mesenteric | + | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | 25 | | |
| Pigmentation | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | 1 | 2.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | | |
| Atrophy | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | 25 | | |
| Alveolus, Hyperplasia | 4 | | | | | 2 | | | 1 | | | | | | 1 | 2 | 2 | | 3 | | 1 | | 1 | | | 10 | 1.8 | |
| Lobules, Hyperplasia | 4 | | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | 3 | 2.0 | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Necrosis, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:17
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F0 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 | *TOTALS | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|---|--|
| | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | | |
| | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 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 | 0 | 0 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | | | |
| | 0 | 2 | 2 | 2 | 2 | 2 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 2 | 2 | 2 | 2 | 3 | 7 | 7 | 7 | 7 | 7 | 8 | | | |
| | 4 | 1 | 2 | 3 | 4 | 5 | 6 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 5 | 6 | 7 | 8 | 9 | 0 | 5 | 6 | 7 | 8 | 9 | 0 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|-----|---|-----|---|-----|---|-----|---|---|---|---|-----|---|---|-----|---|-------|---|---|---|---|---|---|--------|-------|
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Brain, Cerebellum | + | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Brain, Cerebrum | + | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Multifocal, Chronic Active | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Nose | + | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Cornea, Edema | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | |
| Bilateral, Nephropathy | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 | |
| Left, Pelvis, Dilatation | | | | | | | | | | | | | | | 2 | | | | | | | | | | | 1 2.0 | |
| Mineralization | 1 | | 2 2 | | 3 3 | | 1 2 | | 4 1 | | | | | 1 1 | | | 3 2 | | 1 1 1 | | | 1 | | | | 17 1.8 | |
| Pelvis, Dilatation | | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:17
 First Dose M/F: NA / NA
 Lab: NCTR

| CD Rat Female
F0 5 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 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 25 | |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 9 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | |
| | | 2 | 2 | 2 | 3 | 3 | 3 | 7 | 7 | 7 | 8 | 8 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 8 | 8 | 8 | 8 | 9 | |
| | | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 7 | 7 | 9 | 0 | 1 | 2 | 3 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Diestrus | | X | | | | | X | | | X | | | | X | X | X | X | | | | | X | X | | 9 | |
| Estrus | | | | | | | | | | X | | | | | | | | | X | | | | | | 2 | |
| 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 | | | | | X | X | | 9 | |
| Estrus | | | | | | | X | | | X | X | | | | | | | X | X | | | | X | | 6 | |
| Metestrus | | | | | X | X | | X | | | | X | X | | | | | | | | X | | | | 6 | |
| Proestrus | | X | | X | X | | | | | | | | | | | | | | | X | | | | | 4 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Alveolus, Hyperplasia | | | | | | | | 3 | 2 | 3 | 2 | | 3 | 3 | 2 | 2 | 1 | | | 2 | 1 | 1 | | | 12 2.1 | |
| Lobules, Hyperplasia | | | | | | | | | | | | | | | | 1 | | | | | | | | | 1 1.0 | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:17
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F0 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 | 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 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 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 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 |
| | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 7 | 7 | 7 | 8 | 8 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 7 | 8 | 9 | 0 | 1 | 2 | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | 6 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | |

NONE
 Special Senses System

NONE
 Urinary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Bilateral, Pelvis, Dilatation | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Inflammation, Chronic Active | | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Mineralization | | 1 | | 2 | 1 | 1 | 1 | | 1 | 2 | 3 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | | 1 | 2 | | 21 1.3 |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:17
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F0 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 | |
| | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | 4 | 9 | 9 | 9 | 9 | 9 | 9 | 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 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 8 | 8 | 8 | 8 | 8 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 9 | 9 | |
| | 2 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 4 | 5 | 6 | 7 | 8 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 7 | 8 | 9 | 0 | 1 | 2 |

***TOTALS**

Alimentary System

| | | |
|---------------------------|---|-------|
| Esophagus | + | 1 |
| Intestine Large, Cecum | + | 1 |
| Intestine Large, Colon | + | 1 |
| Intestine Small, Duodenum | + | 1 |
| Intestine Small, Ileum | + | 1 |
| Intestine Small, Jejunum | + | 1 |
| Liver | + | 1 |
| Crystals | 4 | 1 4.0 |
| Pancreas | + | 1 |
| Salivary Glands | + | 1 |
| Stomach, Forestomach | + | 1 |
| Stomach, Glandular | + | 1 |

Cardiovascular System

| | | |
|-------|---|---|
| Heart | + | 1 |
|-------|---|---|

Endocrine System

| | | |
|-----------------|---|---|
| Adrenal Cortex | + | 1 |
| Adrenal Medulla | + | 1 |
| Pituitary Gland | + | 1 |
| Thyroid Gland | + | 1 |

General Body System

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:18
 First Dose M/F: NA / NA
 Lab: NCTR

| 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 | |
| CD Rat Female | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| F0 100 PPM | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | 4 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | |
| | 2 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 7 | 8 | 9 | 0 | 1 | 2 | |

| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|--|
| Genital System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | + | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | |
| Corpus Luteum, Hypertrophy | 3 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Diestrus | | | | | | | | | | | | | | | | | | | | | | | | | 7 | | |
| Estrus | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Metestrus | | | | | | | | | | | | | | | | | | | | | | | | | 8 | | |
| Proestrus | | | | | | | | | | | | | | | | | | | | | | | | | 9 | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | | |
| Decidual Reaction | | | | | | | | | | | | | | | | | | | | | | | | | 24 | | |
| Diestrus | | | | | | | | | | | | | | | | | | | | | | | | | 7 | | |
| Estrus | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Metestrus | | | | | | | | | | | | | | | | | | | | | | | | | 8 | | |
| Pregnancy | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Proestrus | | | | | | | | | | | | | | | | | | | | | | | | | 9 | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | | | |
| Diestrus | | | | | | | | | | | | | | | | | | | | | | | | | 8 | | |
| Estrus | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Metestrus | | | | | | | | | | | | | | | | | | | | | | | | | 8 | | |
| Mucocyte, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 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: 99930-91
Test Type: MULTIGEN CHRONIC
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: 10/23/2014
Time Report Requested: 03:19:18
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Female
F0 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 | 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 | 1 | 1 |
| | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 4 | 9 | 9 | 9 | 9 | 9 | 9 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 8 | 8 | 8 | 8 | 8 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 |
| | 2 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 4 | 5 | 6 | 7 | 8 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 2 | 2 |

***TOTALS**

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|
| Mucocyte, Hypertrophy | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Proestrus | | X | | | | | | | | | | | X | X | X | X | | | | X | | | | | | X | | | | | | | 7 | | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Lymph Node, Mandibular | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Lymph Node, Mesenteric | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Spleen | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Thymus | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | |
| Alveolus, Hyperplasia | 4 | | | | | | | | | | | | | 3 | 1 | | | | 2 | 2 | 2 | 2 | | | | | | | | | | | 1 | 8 | 2.1 | |
| Duct, Hyperplasia | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Lobules, Hyperplasia | | | | | | | | | | | | | | 1 | | | | 1 | | | | 1 | | | | | | | | | | | | 3 | 1.0 | |
| Skin | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Brain, Cerebellum | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Brain, Cerebrum | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:18
 First Dose M/F: NA / NA
 Lab: NCTR

| CD Rat Female
F0 100 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 | 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 | |
| | | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | | 4 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 8 | 8 | 8 | 8 | 8 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 8 | 8 | 9 | | |
| | | 2 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 4 | 5 | 6 | 7 | 8 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 7 | 8 | 9 | | |

Respiratory System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Lung | + | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Nose | + | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Trachea | + | | | | | | | | | | | | | | | | | | | | | | | | 1 |

Special Senses System

NONE

Urinary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|----|-----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | | | |
| Apoptosis | 4 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | | |
| Bilateral, Parenchym Cell, Proliferation | 3 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | | |
| Inflammation, Chronic Active | | | | 1 | | | | | | | | | | | | | | | 1 | | | | | | 2 | 1.0 | | |
| Mineralization | 2 | 1 | | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 2 | 3 | 1 | | | 2 | 1 | 1 | 1 | 3 | | 1 | 1 | 1 | 2 | 22 | 1.5 |
| Urinary Bladder | + | | | | | | | | | | | | | | | | | | | | | | | | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:18
 First Dose M/F: NA / NA
 Lab: NCTR

| CD Rat Female
F0 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 | *TOTALS |
|-----------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| | 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 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 4 | 4 | 4 | 4 | 4 | 9 | 9 | 9 | 9 | 9 | |
| | | 0 | 1 | 2 | 3 | 4 | 5 | 9 | 0 | 1 | 2 | 3 | 4 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 4 | 5 | 6 | 7 | 25 |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Inflammation, Chronic Active | | | | | | | | | 2 | | 1 | | | | | | | | | | | | | 2 | 1.5 |
| Left Lat Lobe, Developmental Malformation | | | | | | X | | X | | | | | | | | | | | | | | | | 2 | |
| Median Lobe, Developmental Malformation | | | | | | X | | | | | | | | | | | | | | | | | | 1 | |

Cardiovascular System

NONE

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Abscess | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Keratin Cyst | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Diestrus | | | X | | | | X | | X | X | | | | | | | | | X | | | | X | 6 |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:18
 First Dose M/F: NA / NA
 Lab: NCTR

| CD Rat Female
F0 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 | 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 | 1 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 4 | 4 | 4 | 4 | 4 | 4 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 4 | 4 | 4 | 4 | 4 | 4 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | 1 | 1 | 2 | 3 | 4 | 5 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 9 | |
| Metestrus | | X | | | X | X | | | | | | | X | X | X | X | X | X | X | X | | | X | | 13 | |
| Proestrus | X | | | X | | | X | | | X | | | | | | | | | | X | X | | | | 6 | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Estrus | | | | | | | | | | | | | X | | | | | | | | | | | | 1 | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Decidual Reaction | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | 23 | |
| Diestrus | | | | X | | | X | X | | | | | | | | | | | | X | | | | X | 6 | |
| Metestrus | | X | | | X | X | | | | | | X | X | X | X | X | X | X | X | | | | X | | 13 | |
| Proestrus | X | | | X | | | X | | | X | | | | | | | | | | X | X | | | | 6 | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Diestrus | | | | X | | | X | X | | | | | | X | | | | | | X | | | | X | 7 | |
| Estrus | | | | X | | | | | | | | | | | | | | | | | | | | | 1 | |
| Keratin Cyst | | | | | | | | | | | | | | | | | | | | X | | | | | 1 | |
| Metestrus | | X | | | X | X | | | | | X | X | X | | X | X | X | X | X | | | | X | | 12 | |
| Proestrus | X | | | | | | X | | | X | | | | | | | | | | X | X | | | | 5 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | 24 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Alveolus, Hyperplasia | 1 | | | | | | | | 1 | 1 | | | 3 | | | 1 | 2 | | | | | | 1 | 1 | 8 1.4 | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:19
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F0 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 | | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | | |
| | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 8 | 9 | 9 | 9 | 9 | 9 | 4 | 4 | 4 | 4 | 4 | 4 | 9 | 9 | 9 | 9 | 9 | 9 | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 9 | 0 | 1 | 2 | 3 | 4 | 4 | 5 | 6 | 7 | 8 | 8 | 9 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | *TOTALS | |
| Lobules, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Left, Cyst | | | | | | | | | | | | | 2 | | | | | | | | | | | | | 1 | 2.0 | |
| Mineralization | | 1 | 1 | | | 2 | | 1 | 2 | 1 | | 4 | | 1 | 2 | 1 | | 3 | 1 | | | 4 | | 4 | | 14 | 2.0 | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:19
 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 | 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 | 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 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | |

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: 99930-91
Test Type: MULTIGEN CHRONIC
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: 10/23/2014
Time Report Requested: 03:19:19
First Dose M/F: NA / NA
Lab: NCTR

| CD Rat Female
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 | | | | | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | |
| Autolysis | 2 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 0 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 9 | 0 | 1 | 9 | 0 | 1 | 2 | 3 | 2 | 1 | 2.0 | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Autolysis | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | |
| Rathkes Cleft, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Autolysis | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Bilateral, Ultimobranchial Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| General Body System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Genital System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | A | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Autolysis | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Diestrus | | | X | X | | | | | | | | | | | | X | X | | | X | | X | X | | | | | 8 | |
| Estrus | | | | | | | | | 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 | X | 22 | |
| Diestrus | | | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:19
 First Dose M/F: NA / NA
 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 | | |
| | 4 | 5 | 5 | 6 | 5 | 5 | 5 | 5 | 5 | 6 | 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 | 0 | 0 | 0 | 3 | 3 | 3 | 2 | 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 | | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 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 | 6 | | |
| | 0 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 0 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 9 | 0 | 1 | 9 | 0 | 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 | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:19
 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 | *TOTALS |
|-------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---------|
| | 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 | |
| Lobules, Hyperplasia | 4 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Congestion, Diffuse | 4 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Nose | + | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Congestion, Diffuse | 4 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:19
 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 | 3 | 3 | 3 | 2 | 2 | 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 | | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | 2 | 1 | 2 | 2 | *TOTALS | |
| Autolysis | 3 | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Bilateral, Nephropathy | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 | |
| Cyst | X | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Infarct | X | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Mineralization | 2 | | | 4 | 1 | 4 | 1 | 1 | 2 | 2 | 3 | 3 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | | 2 | 1 | 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: 99930-91
Test Type: MULTIGEN CHRONIC
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: 10/23/2014
Time Report Requested: 03:19:20
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 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------|
| | 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 |
| | | | | | | | | | | | | | | | | | | | | | | | | *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 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:20
 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 | |
| ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | *TOTALS | | | |
| | 5 | 5 | 6 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 5 | 5 | 6 | 6 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 1 | 2.0 | |
| | 9 | 9 | 0 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 8 | 8 | |
| Endometrium, Inflammation, Diffuse | | | | | | | | | | | | | | | | | | | 2 | | | | 1 | 2.0 | | |
| Estrus | X | X | | | | X | | | X | X | | | | X | | | | | X | | | X | 8 | | | |
| Inflammation, Chronic Active, Focal | | | | | | | | | | | | | | | | | | | 3 | | | | 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 | | | | | | | | | | | | | | | | | | | 2 | | | | | 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 | | | 4 | | | 2 | | | 6 | 2.2 | |
| Lobules, Hyperplasia | | | | | | | | | | | | | | 4 | | | | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:20
 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 | 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 | 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 | 6 | 6 | 6 |
| | 9 | 9 | 0 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 9 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 2 | 1 | 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 | 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 | 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 | 2 | 2 | 3 | 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 | 0 | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:20
 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 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 9 | 9 | 0 | 9 | 9 | 9 | 0 | 0 | 9 | 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 | 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 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

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 | 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

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:20
 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 | 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 | 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 | 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 | 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 | |
| | 2 | 2 | 3 | 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 | 6 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 6 | 7 | 7 | 8 | 9 | 0 | 0 | 0 | 1 | 2 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 2 | 3 | 4 | 5 | 6 | 6 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS |
| 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 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 99930-91
Test Type: MULTIGEN CHRONIC
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: 10/23/2014
Time Report Requested: 03:19:20
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 | 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 | 1 |
| | 5 | 5 | 6 | 5 | 5 | 5 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 9 | 9 | 0 | 9 | 9 | 9 | 0 | 0 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 3 | 3 | 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 | 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 | 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 | 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 | 6 | 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
 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:20
 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 | 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 | 1 | 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 | 3 |
| | 6 | 6 | 7 | 7 | 7 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 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 |

***TOTALS**

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

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| 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

Genital System

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:21
 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 | 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 | | |
| 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 | 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 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS |
| 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 | 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 | | | 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 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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
 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:21
 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 | 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 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 6 | 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 | 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 | 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 | 3 | 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 | 8 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | 25 | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | 25 | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Alveolus, Hyperplasia | | 1 | 2 | 1 | | | | | | | | | | | 2 | | | | | 1 | 2 | 1 | | 1 | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | 25 | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | 25 | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | |
| Nephropathy | | | | | | | | | | | | | | | | | | 1 | | | | | 2 | | | |
| Pelvis, Dilatation | | | | | | | | | | | | | | | | | | | | | | | 3 | | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:21
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F2 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 | 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 | 1 | 1 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 3 | 2 | 2 | 1 | 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 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 9 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 5 | 6 | 7 | 8 | 9 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 2 | 3 | 4 | 5 | 8 | | | | |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Median Lobe, Developmental Malformation | | | | | X | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | | | | | | | | | | | | | | | | | | | | | + | | | | | | | 1 |

Cardiovascular System

NONE

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Diestrus | | | | | | | | | X | X | X | X | | | | | X | | X | X | | | | | | | | 7 |
| Estrus | X | | X | | X | | | | | | | | | | | X | | | | | | | | X | | | | 5 |
| Metestrus | | | | X | | X | X | X | | | | | X | | X | | | | | | | | | | | | | 6 |
| Proestrus | | X | | | | | | | | | | | X | | | | X | | | X | X | | X | X | | | | 7 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:21
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F2 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 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 2 | 2 | 1 | 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 | | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 5 | 5 | 6 | 7 | 8 | 9 | 9 | 0 | 1 | 2 | 2 | 3 | 4 | 5 | 2 | 3 | 4 | 5 | 8 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Decidual Reaction | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 24 | |
| Diestrus | | | | | | | | | | X | X | X | X | | | | X | | X | X | | | | | 7 | |
| Estrus | X | | X | | X | | | | | | | | | | X | | | | | | | X | | | 5 | |
| Metestrus | | | | X | | X | X | X | | | | | X | | X | | | | | | | | | | 6 | |
| Proestrus | | X | | | | | | | | | | | | X | | | | X | | | X | X | | X | 7 | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 24 | |
| Diestrus | | | | | | | | | | X | X | X | X | | | | | X | | X | X | | | | 7 | |
| Estrus | X | | X | | X | | | | | | | | | | | X | | | | | | X | X | | 6 | |
| Metestrus | | | | X | | X | X | X | | | | | X | | X | | | | | | | | | | 6 | |
| Proestrus | | X | | | | | | | | | | | | X | | | | X | | X | | | X | | 5 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | 24 |
| Alveolus, Hyperplasia | 1 | | 2 | 2 | 2 | 2 | | 1 | 1 | 2 | 1 | 1 | 2 | 1 | | 1 | 2 | 2 | 2 | 2 | | | | 2 | 18 | 1.6 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:21
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F2 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 3 | 2 | 2 | 1 | 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 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 9 | 0 | 0 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | 0 |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 5 | 6 | 7 | 8 | 9 | 9 | 0 | 1 | 2 | 2 | 3 | 4 | 5 | 2 | 3 | 4 | 8 |

***TOTALS**

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Mineralization | | 2 | 1 | 3 | 1 | 2 | 2 | | 1 | 1 | 2 | 2 | 1 | | 1 | 2 | 2 | 3 | 2 | 2 | 1 | 1 | | 1 | |

20 1.7

* ..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
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically
 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014

Time Report Requested: 03:19:21

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
 F2 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 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 0 | 3 | 2 | 0 | 1 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 5 | 5 | 5 | 5 | 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 | 6 | 6 | 6 | |
| | 1 | 1 | 1 | 1 | 2 | 6 | 6 | 6 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 0 | 1 | 1 | | | | | | |
| | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 6 | 7 | 8 | 9 | 6 | 7 | 8 | 9 | 6 | 7 | 8 | 9 | 0 | 1 | 0 | 0 | 0 | |

*TOTALS

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Liver | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Developmental Malformation | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Diestrus | | X | | | | X | | | | | X | | | X | | | | | | X | X | | | | | | | | | | | | | 6 | |
| Estrus | | | | X | | | | | X | | | | X | X | X | | X | | | | | | | | | X | | | | | | | | 7 | |
| Metestrus | | | | | X | | X | | | X | | | | | | | | | | | | | | | X | | | | | | | | | | 4 |
| Proestrus | X | | X | | | | | X | | | | X | | | | | X | | X | | | | | X | X | | | | | | | | | 8 | |
| 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 | X | X | X | X | X | X | X | X | X | X | X | X | X | 24 | |
| Diestrus | | X | | | | X | | | | | X | | | X | | | | | | X | X | | | | | | | | | | | | | 6 | |
| Estrus | | | | 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 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:22
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F2 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 0 | 3 | 2 | 0 | 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 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 1 | 1 | 1 | 2 | 6 | 6 | 6 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 8 | 8 | 0 | 1 | |
| | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 6 | 7 | 8 | 9 | 6 | 7 | 8 | 9 | *TOTALS |
| Metestrus | | | | | X | | X | | | X | | | | | | | | | | | X | | | | 4 |
| Proestrus | X | | X | | | | | X | | | | X | | | | | X | | X | | | X | X | | 8 |
| Vagina | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 |
| Diestrus | | X | | | | X | | | | X | | | X | | | | | | X | X | | | | | 6 |
| Estrus | | | | X | | | | X | X | | | X | | X | X | | X | | | | | | X | | 8 |
| Metestrus | | | | | X | | X | | | X | | | | | | | | | | X | | | | | 4 |
| Proestrus | | | | | | | | | | | X | | | | | X | | X | | | | X | X | | 5 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Alveolus, Hyperplasia | 1 | 1 | 2 | 2 | 2 | | 2 | 2 | 2 | 2 | 2 | | | | | | 2 | 3 | 2 | | 2 | 2 | | | 15 1.9 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:22
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F2 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 0 | 3 | 2 | 0 | 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 | | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | | |
| | 1 | 1 | 1 | 2 | 6 | 6 | 6 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 0 | | |
| | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 6 | 7 | 8 | 9 | 6 | 7 | 8 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| NONE | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Bilateral, Cyst | | | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Cyst | X | | | | | | | | | | | | | | | X | | | | | | | | 2 |
| Inflammation, Chronic Active | | | 1 | | | | | | | | | | | 2 | | | | | | | | | | 2 1.5 |
| Mineralization | 1 | 3 | 1 | 2 | | 3 | 1 | 1 | | 4 | 1 | 4 | 1 | 1 | | 1 | 1 | 2 | 1 | 1 | 2 | | 3 | 21 1.7 |
| Parenchym Cell, Proliferation, Focal | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 1.0 |
| 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:22
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F2 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 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 6 | 6 | 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 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 0 | 0 | 9 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 3 | 2 | 2 | 0 | 9 | 9 | 0 | 9 | 9 | 0 | 9 | 9 | 0 | 9 | 9 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 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 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 2 | 2 | 2 | 2 | 6 | 6 | 6 | 6 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 1 | 2 | 3 | 4 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 9 | 0 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Diestrus | | | X | X | | | | | X | | X | | | X | | X | | | | | | | | | | | | | | | | | | | | | 6 |
| Estrus | X | | | | X | | | | | | X | | | | | X | | | | | | | | X | | X | | | | | | | | | | | 6 |
| Metestrus | | X | | | | X | X | | | | | X | | X | | | | | | | X | X | X | | X | | | | | | | | | | | | 6 |
| 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 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 23 |
| Diestrus | | | | X | X | | | | | X | X | | | X | | X | | | | | | | | | | | | | | | | | | | | | 6 |
| Estrus | X | | | | X | | | | | | | X | | | | | | X | | | | | | | | | | X | X | | | | | | | 6 | |
| Metestrus | | X | | | | X | X | | | | | X | | X | | | | | | | | | X | | | | | | | | | | | | | | 6 |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:22
 First Dose M/F: NA / NA
 Lab: NCTR

| CD Rat Female
F2 100 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 2 | 2 | 2 | 2 | 6 | 6 | 6 | 6 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 8 | 9 | 9 | 9 | 9 | |
| | 1 | 2 | 3 | 4 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 2 | 3 | 0 | 1 | 2 | 3 | 4 | 5 | 5 | 6 | 9 | 0 | | |
| Proestrus | | | | | X | | | | X | | X | | | | | | | | X | X | X | | X | 7 | |
| Vagina | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Diestrus | | | X | X | | | | | X | | X | | | X | | X | | | | | | | | 6 | |
| Estrus | X | | | | X | | | | | | | X | | | | X | | | X | | X | X | X | 8 | |
| Metestrus | | X | | | | X | X | | | | | | X | | X | | | | | | X | | | 6 | |
| Proestrus | | | | | X | | | | | X | | | | | | | | X | X | | | | | 4 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Alveolus, Hyperplasia | 3 | 2 | 1 | 2 | 1 | 1 | 1 | | | 2 | 2 | 3 | 1 | | 3 | | 1 | 2 | | 1 | | | 1 | 16 1.7 | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:22
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F2 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 | 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 | 1 |
| | 6 | 6 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | |
| | 0 | 0 | 9 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 3 | 2 | 2 | 0 | 9 | 9 | 9 | |
| 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 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | |
| | 2 | 2 | 2 | 2 | 6 | 6 | 6 | 6 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 8 | 9 | 9 | 9 | 9 | 1 | 1 | 1 | |
| | 1 | 2 | 3 | 4 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 9 | 0 | 1 | 2 | 1 | 2 | 2 | |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | |

Urinary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|-------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Cyst | | | | | | | | | | | | | X | | | | | | X | | | | | | | | | 2 |
| Inflammation, Chronic Active | | | 2 | | | | | | | | | | | | | | | | | | | | | 1 | | | | 2 1.5 |
| Mineralization | 1 | 4 | 1 | 4 | 1 | 2 | 1 | 3 | 1 | 3 | 2 | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 23 1.5 | |
| Renal Tubule, Dilatation, Focal | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | 1 2.0 |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:22
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F2 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 5 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 4 | 2 | 4 | 9 |
| 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 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 9 | 9 | 9 | 1 | 1 |
| | 5 | 6 | 7 | 9 | 0 | 1 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 4 | 5 | 6 | 7 | 8 | 7 | 8 | 3 | 4 | 5 | 3 |
| | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Bile Duct, Inflammation | | | | | | | | | | | | | | | | | | | | X | | | | | 1 |
| Developmental Malformation | | | | | | | X | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Chronic Active, Focal | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 1.0 |
| Median Lobe, Developmental Malformation | X | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Necrosis, Focal | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 1.0 |

Cardiovascular System

NONE

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Cyst | | | | | | X | | | | | | | | | | | | | | | | | | | 1 |

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Cyst | | | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:22
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F2 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 | | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | | | |
| 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 | | | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | | | |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 9 | 9 | 1 | | | |
| | 5 | 6 | 7 | 9 | 0 | 1 | 2 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 4 | 5 | 6 | 7 | 8 | 7 | 5 | 3 | 4 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | | | |
| Diestrus | | | | | | | | | | | X | X | | | | | X | X | X | X | | | | | 6 | |
| Estrus | | | X | | | | | | | | | | | | | | | X | | | | | 2 | | | |
| Metestrus | | | X | | | | | X | | | | | X | | | | | X | X | X | X | | | | | 7 |
| Proestrus | X | | | | X | X | X | | | | X | X | | | X | | | | | 10 | | | | | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Decidual Reaction | X | X | X | | | | X | X | X | X | X | X | X | | | X | X | X | X | X | X | X | X | | | |
| Diestrus | | | | | | | | | X | | | | | X | | | | | X | X | | | | | 6 | |
| Estrus | | | X | | | | | | | | | | | | | | | X | | | | | 2 | | | |
| Metestrus | | | X | | | | | X | | | | | X | | | | | X | X | X | X | | | | | 7 |
| Proestrus | X | | | | X | X | X | | | | X | X | | | X | | | | | 10 | | | | | | |
| Vagina | + | + | M | + | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Diestrus | | | | | | | | | X | | | | | X | | | | | X | X | | | | | 6 | |
| Estrus | | | | | | | X | | | | | | | | | X | | | | | 2 | | | | | |
| Metestrus | | | X | | | | | X | | | | | X | | | | | X | X | X | X | | | | | 7 |
| Proestrus | X | | | | X | X | | | | X | X | X | X | | | X | | | | | 8 | | | | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:22
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F2 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 | | |
| 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 | 1 | *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 | | |
| Alveolus, Hyperplasia | 1 | 3 | 1 | | 3 | 3 | 1 | 1 | 2 | 3 | 1 | 1 | 2 | 1 | 2 | | 1 | 1 | 2 | 1 | 1 | | 1 | 2 | 21 | 1.6 | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Cyst | | | X | X | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Infarct | | | | | | | | | | | X | | | | | | | | | | | | | | 1 | | |
| Mineralization | 2 | 2 | 3 | 1 | | 2 | 1 | | 1 | 1 | 1 | | | 1 | 3 | 1 | 2 | 1 | 1 | 2 | | 4 | 1 | 3 | 19 | 1.7 | |

* ..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
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically
 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:23
 First Dose M/F: NA / NA
 Lab: NCTR

| CD Rat Female
F3 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 | | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | | | |
| | | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 1 | 3 | 2 | 1 | 0 | 9 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | | |
| | | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 1 | 1 | 1 | 6 | 6 | 6 | 6 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | | |
| | | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 4 | 5 | 6 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 0 | 0 | 0 | 1 | 2 | 3 | 4 | | |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Developmental Malformation | | | | | | X | | | | | | | | | | | | | | | | | | | 1 |

Cardiovascular System

NONE

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Hyperplasia, Focal | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Diestrus | | | | | | | | X | X | | | | | | X | X | X | | | | | X | X | | 7 |
| Estrus | X | | | X | X | | X | | X | X | | X | | | X | | | | | | | | | | 9 |
| Metestrus | | X | | | | X | | | | | | | | | | | | | X | | | | | | 3 |
| Proestrus | | | X | | | | | | | | | X | X | | | | | | X | X | | | X | | 6 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:23
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | | |
| | 1 | 1 | 1 | 1 | 1 | 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 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | | |
| | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | | |
| | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 4 | 5 | 6 | 6 | 7 | 8 | 8 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Decidual Reaction | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 23 | |
| Diestrus | | | | | | | | X | X | | | | | | X | X | X | | | | X | X | 7 | | |
| Endometrium, Hyperplasia, Cystic | | | | | | | | | | | | | | | | | | | | | 4 | | | 1 4.0 | |
| Estrus | X | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 10 | |
| Metestrus | | X | | | | X | | | | | | | | | | | | | | X | | | | 3 | |
| Proestrus | | | X | | | | | | | | | X | X | | | | | | | | X | | X | 5 | |
| Vagina | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Diestrus | | | | | | | | X | X | | | | | | X | X | X | | | | X | X | 7 | | |
| Estrus | X | | | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 7 | |
| Metestrus | | X | | | X | | | | | | | | X | | | | | | | X | | | | 4 | |
| Proestrus | | | X | | | | | | | | | X | X | | | | | | | X | X | | X | 6 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Alveolus, Hyperplasia | | | 2 | 2 | 2 | 3 | 2 | 3 | | 1 | 2 | | | | | | 1 | 2 | | 1 | | | | 11 1.9 | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:23
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | |
| | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 1 | 3 | 2 | 1 | 0 | 9 | |
| 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 | |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 1 | 1 | 1 | 6 | 6 | 6 | 6 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | |
| | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 4 | 5 | 6 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 0 | 1 | 1 | 2 | 3 | 3 | 3 | 4 | |
| | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

Kidney

+ 25

Mineralization

2 1 4 2 1 1 2 3 1 4 2 1 1 4 1 2 1 2 1 1 4 21 2.0

Pelvis, Unilateral, Dilatation

2 1 2.0

Renal Tubule, Cyst

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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:23
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/5PPM TO CTL**

| 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 1 | 1 | 2 | 0 | 0 | 9 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 4 | 4 | 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 |
| | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 5 | 5 | 5 | 1 | 1 | 1 | 2 | 3 | 6 | 6 | 6 | 6 | 7 | 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 |
| | 5 | 6 | 7 | 7 | 8 | 9 | 0 | 6 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 5 | 6 | 7 | |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | |

Alimentary System

Liver + 2
 Hepatodiaphragmatic Nodule X 1

Cardiovascular System

NONE

Endocrine System

Adrenal Cortex + 1
 Adrenal Medulla + 1
 Pituitary Gland + 1
 Thyroid Gland + 1

General Body System

NONE

Genital System

Ovary + 25
 Diestrus X 2
 Estrus X 8
 Metestrus X 10
 Proestrus X 5
 Oviduct + 25
 Uterus + 25

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:23
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/5PPM TO CTL**

| | 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 | *TOTALS | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | | |
| | 5 | 5 | 5 | 1 | 1 | 1 | 2 | 3 | 6 | 6 | 6 | 6 | 7 | 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | 5 | 6 | 7 | 7 | 8 | 9 | 0 | 6 | 6 | 7 | 8 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 5 | 6 | 7 | | |
| Decidual Reaction | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 24 | |
| Diestrus | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Estrus | | | | | X | X | | | | X | | | | X | | | | | | | X | X | | | 6 | |
| Metestrus | | X | X | | | | | | | | | X | X | | X | | X | X | X | X | | | | X | 10 | |
| Proestrus | X | | | X | | | X | X | X | | X | | | | | X | | | | | | | | | 7 | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Diestrus | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Estrus | | | | | X | X | | | | X | X | | | X | | X | | | | | X | X | | | 8 | |
| Metestrus | | X | X | | | | | | | | | X | X | | X | | X | X | X | X | | | | X | 10 | |
| Proestrus | X | | | X | | | X | X | X | | | | | | | | | | | | | | | | 5 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | | | | + | | | | | | | | | | | | | | | | | | | | 1 | |
| Spleen | | | | | + | | | | | | | | | | | | | | | | | | | | 1 | |
| Thymus | | | | | + | | | | | | | | | | | | | | | | | | | | 1 | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Alveolus, Hyperplasia | 1 | 3 | | 4 | 3 | 1 | 3 | | 3 | | | | | 1 | | | 1 | 3 | | 1 | | 2 | | | 12 | 2.2 |
| Lobules, Hyperplasia | | | | 4 | | | 1 | | | | | | | 1 | | | 2 | | | | | | | | 4 | 2.0 |
| Skin | | | | + | | | | | | | | | | | | | | | | | | | | | 1 | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | | | | + | | | | | | | | | | | | | | | | | | | | 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: 99930-91
Test Type: MULTIGEN CHRONIC
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: 10/23/2014
Time Report Requested: 03:19:23
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Female
F3/5PPM TO CTL

| 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 1 | 1 | 1 | 2 | 0 | 0 | 9 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 4 | 4 | 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 | |
| | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | 5 | 5 | 5 | 1 | 1 | 1 | 2 | 3 | 6 | 6 | 6 | 6 | 7 | 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | |
| | 5 | 6 | 7 | 7 | 8 | 9 | 0 | 6 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 5 | 6 | 7 |
| | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | | |

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Cyst | | X | | | | | | | | | | | | | | | | | | | X | | | 2 | | |
| Mineralization | 1 | 1 | 2 | 2 | 3 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | | 2 | 4 | 2 | 2 | 3 | 1 | 1 | | 1 | 1 | 1 | 22 | 1.6 |
| Renal Tubule, Regeneration | | | | | | | | | | | | | | | | | | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:23
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/100PPM TO CTL**

| 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 2 | 2 | 1 | 1 | 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 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 |
| | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 2 | 2 | 2 | 2 | 2 | 2 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 2 | 2 | 2 | 2 | 2 |
| | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 6 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 0 | 1 | 2 | 3 | 4 |
| | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Diestrus | | | X | | X | X | | | X | | | | X | | X | X | | | X | X | | | | | 9 |
| Estrus | | | | | | | | | X | X | X | | | | | | | | | | | | | | 3 |
| Metestrus | | | | X | | | | | | | | | X | | | X | | X | | | | | | | 4 |
| Proestrus | X | X | | | | | X | X | | | | X | | | | | X | | | | X | X | X | | 9 |
| 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 | X | 22 |
| Diestrus | | | | X | | X | X | | X | | | | | X | | X | X | | | X | X | | | | 9 |
| Estrus | | | | | | | | | X | X | X | | | | | | | | | | | | | | 3 |
| Metestrus | | | | X | | | | | | | | | X | | | X | | X | | | | | | | 4 |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:24
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/100PPM TO CTL**

| | 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 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 1 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | | |
| | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 2 | 2 | 2 | 2 | 2 | 2 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 2 | 2 | 2 | 2 | | |
| | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 6 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 0 | 1 | 2 | 3 | 4 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |
| Proestrus | X | X | | | | | | X | X | | | | | X | | | | | | X | | | X | X | X | 9 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Diestrus | | | | X | | X | X | | | X | | | | X | | X | X | | | | X | X | | | 9 | |
| Estrus | X | | | | | | | X | X | | X | X | X | | | | | | | X | | | | | 7 | |
| Metestrus | | | | | X | | | | | | | | | | X | | | X | | X | | | | | 4 | |
| Proestrus | | | X | | | | | | | | | | X | | | | | | | | | | X | X | X | 5 |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Alveolus, Hyperplasia | | | 2 | | 3 | | | | 1 | | | 2 | | 1 | 1 | 2 | 2 | | | 1 | | | 2 | 1 | 11 1.6 | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:24
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/100PPM TO CTL**

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 2 | 2 | 1 | 1 | 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 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 |
| | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 2 | 2 | 2 | 2 | 2 | 2 | 7 | 7 | 7 | 7 | 7 | 7 | 2 | 2 | 2 | 2 | 2 | |
| | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 6 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 0 | 1 | 2 | 3 | 4 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

Urinary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Cyst, Multiple | X | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Mineralization | 1 | 1 | 4 | 1 | 1 | 2 | 1 | 2 | 2 | 4 | 4 | | | 2 | 4 | 3 | 2 | 2 | 3 | 1 | 3 | | 2 | 3 | 1 | 22 2.2 |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:24
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/500PPM TO CTL**

| 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 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 |
| | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 |
| | 6 | 6 | 6 | 6 | 6 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 7 | 8 | 8 | 8 | 2 | 2 | 2 | 2 | 3 | 3 |
| | 5 | 6 | 7 | 8 | 9 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 9 | 0 | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 8 | 9 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |

Cardiovascular System

NONE

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Diestrus | | | X | | | X | | X | X | | | | | | | | X | | | | | | X | | 6 |
| Estrus | X | | | X | X | X | | | | | | | | X | | | | | X | | | | | | 6 |
| Metestrus | | | | | | | X | | X | X | | | X | X | | X | | | | | | X | | | 7 |
| Proestrus | | X | X | | | | | | | X | X | | | | | | | | X | X | | | | | 6 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:24
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/500PPM TO CTL**

| | 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 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 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 | | |
| | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | | |
| | 6 | 6 | 6 | 6 | 6 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | | |
| | 5 | 6 | 7 | 8 | 9 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 9 | 0 | 1 | 2 | 3 | 3 | 5 | 6 | 7 | 8 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS |
| Decidual Reaction | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 25 | |
| Diestrus | | X | X | | | | X | | | X | X | | | | | | X | X | | | | | X | 8 | | |
| Endometrium, Cyst | | | | | | | | | | | | | | | | | | X | | | | | | 1 | | |
| Estrus | X | | | | | X | | | | | | | | | | | | | | | X | | | 3 | | |
| Metestrus | | | | | | | | X | X | | | X | X | | X | X | | | X | | | | X | 8 | | |
| Proestrus | | | | X | X | | | | | | | X | | X | | | | | | | X | X | | 6 | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Diestrus | | X | X | | | | X | | | X | X | | | | | | | | X | | | | X | 7 | | |
| Estrus | X | | | | X | X | | | | | | | X | | | | | | | X | | | | 5 | | |
| Keratin Cyst | | X | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Metestrus | | | | | | | X | X | | | X | X | | | X | X | | X | | | | X | | 8 | | |
| Proestrus | | | | X | | | | | | | | X | | | X | | | | | X | X | | | 5 | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Alveolus, Hyperplasia | 1 | 2 | | 4 | | 1 | 1 | 1 | | | | | | | 4 | | | 1 | 1 | 2 | 2 | | 1 | 12 | | |
| Lobules, Hyperplasia | | | | 3 | | | | | | | | 4 | | | 2 | | | | | | | | | 3 | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | 24 | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:24
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/500PPM TO CTL**

| 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 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 2 | 1 | 1 | 1 | 1 | 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 |
| | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 6 | 6 | 6 | 6 | 6 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 7 | 8 | 8 | 8 | 8 | 2 | 2 | 2 | 2 | 3 | 3 |
| | 5 | 6 | 7 | 8 | 9 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 9 | 0 | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 8 | 9 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

Musculoskeletal System

Bone, Femur + 25

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

Kidney + 25

Bilateral, Pelvis, Dilatation 2 1 2.0
 Inflammation, Chronic Active 1 1 1.0
 Inflammation, Chronic Active, Focal 1 1 1.0
 Mineralization 1 1 1 1 2 1 1 1 1 1 1 2 2 15 1.2
 Renal Tubule, Cyst 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: 99930-91
Test Type: MULTIGEN CHRONIC
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: 10/23/2014
Time Report Requested: 03:19:24
First Dose M/F: NA / NA
Lab: NCTR

**CD Rat Female
F4 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 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 7 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 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 |
| | 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 | 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 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 9 | 9 | 9 | 9 | 3 | 3 | 3 | 3 | 3 | 7 | 7 | 7 |
| | 4 | 5 | 6 | 7 | 8 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 4 | 5 | 6 | 7 | 8 | 4 | 5 | 6 | 7 | 8 | 5 | 6 |

***TOTALS**

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Intestine Large, Cecum | + | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Epithelium, Autolysis | | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Intestine Large, Colon | + | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Intestine Small, Duodenum | + | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Epithelium, Autolysis | | 3 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Hyperplasia | | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Intestine Small, Ileum | + | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Epithelium, Autolysis | | 3 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Intestine Small, Jejunum | + | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Epithelium, Autolysis | | 3 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | |
| Pancreas | + | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Autolysis | | 3 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Salivary Glands | + | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Autolysis | | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

Cardiovascular System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|
| Blood Vessel | + | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Heart | + | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

Endocrine System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:25
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F4 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 | |
| | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 7 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 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 | |
| | 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 | 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 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 9 | 9 | 9 | 9 | 9 | 3 | 3 | 3 | 3 | 3 | 7 | 7 | 7 | |
| | 4 | 5 | 6 | 7 | 8 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 4 | 5 | 6 | 7 | 8 | 4 | 5 | 6 | 7 | 8 | 5 | 6 | 7 | 2 |
| Hyperplasia, Multifocal, Focal | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 |
| General Body System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Genital System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 25 |
| Diestrus | | X | | | | | | | X | | | | | X | X | | | | X | | | | X | | 6 | |
| Estrus | | | | | | | | | | X | | X | | | | | | X | | | | | | | 3 | |
| Metestrus | | | | | X | | | | | | | | | | | | | | | | | X | | | 2 | |
| Proestrus | X | | X | X | | X | X | | X | X | | X | | | X | X | | X | X | | | | X | X | 14 | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 25 |
| Estrus | | | | | | | | | X | | | | | | X | | | | | | | | | | 2 | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | |
| Autolysis | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Decidual Reaction | X | X | X | X | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 25 | |
| Diestrus | | X | | | | | | X | | | | | | X | X | | | | X | | | | X | | 6 | |
| Estrus | | | | | | | | | | X | | X | | | | | | X | | | | | | | 3 | |
| Metestrus | | | | | X | | | | | | | | | | | | | | | | | X | X | | 3 | |
| Proestrus | X | | X | X | | X | X | | X | X | | X | | | X | X | | X | X | | | | X | X | 14 | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 26 | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:25
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F4 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 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 7 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 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 | 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 | | |
| | 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 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 9 | 9 | 9 | 9 | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 4 | 5 | 6 | 7 | 8 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 4 | 5 | 6 | 7 | 8 | 4 | 5 | 6 | 7 | 8 | 5 | 6 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | |
| Autolysis | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Diestrus | X | | | | | | | | | | | | | | | | | | | | | | | | 6 | |
| Estrus | X | | | | | | | | | | | | | | | | | | | | | | | | 9 | |
| Metestrus | X | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Proestrus | X | | | | | | | | | | | | | | | | | | | | | | | | 8 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | | | | 26 | |
| Autolysis | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Lymph Node, Mandibular | + | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Autolysis | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Lymph Node, Mesenteric | + | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hyperplasia, Reticulum Cell | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Spleen | + | | | | | | | | | | | | | | | | | | | | | | | | 26 | |
| Thymus | + | | | | | | | | | | | | | | | | | | | | | | | | 26 | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | | | | | | | | | | | | | | | | | | | | | | | | 26 | |
| Alveolus, Hyperplasia | 3 | | | | | | | | | | | | | | | | | | | | | | | | 14 | 2.4 |
| Lobules, Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | | | | 7 | 1.7 |
| Skin | + | | | | | | | | | | | | | | | | | | | | | | | | 26 | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | | | | | | | | | | | | | | | | | | | | | | | | 26 | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:25
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
 F4 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 |
| | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 7 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 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 |
| | 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 |
| | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 4 | 5 | 6 | 7 | 8 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 4 | 5 | 6 | 7 | 8 | 4 | 5 | 6 | 7 | 8 | 5 | 6 | 7 | 8 |

*TOTALS

Nervous System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|
| Brain | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Brain, Cerebrum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Unilateral, Hydrocephalus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |

Respiratory System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|
| Lung | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Autolysis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Infiltration Cellular, Macrophage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Nose | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Autolysis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

Special Senses System

NONE

Urinary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|-----|---|--|
| Kidney | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 26 | | | |
| Mineralization | | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | | 3 | 2 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | | 1 | 1 | 1 | | 23 | 1.4 | | |
| Urinary Bladder | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:25
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F4/5PPM TO CTL

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 4 | 4 | 4 | 4 | 3 | 1 | 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 | |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | |
| | 1 | 2 | 2 | 2 | 2 | 6 | 6 | 6 | 6 | 9 | 0 | 0 | 0 | 3 | 4 | 4 | 7 | 7 | 8 | 8 | 8 | 8 | 0 | 0 | |
| | 9 | 0 | 1 | 2 | 3 | 2 | 3 | 4 | 5 | 9 | 0 | 1 | 2 | 3 | 9 | 0 | 1 | 4 | 9 | 0 | 1 | 2 | 3 | 6 | 7 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | 24 |
| Diestrus | | X | | X | | | X | | | X | | | | X | | X | X | | | | X | | | | 8 |
| Estrus | | | | | | | | | | X | | | | X | | | | | | | X | | X | | 4 |
| Metestrus | X | | | | | | | | | | | | | | | | | | | X | | | | | 2 |
| Proestrus | | | X | X | X | X | X | X | X | X | X | | | | | | X | X | | | | | | | 10 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Decidual Reaction | X | X | X | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | X | X | X | X | X | X | 24 |
| Diestrus | | | X | X | | | X | | | X | | | | X | | X | X | | | | X | | X | | 9 |
| Estrus | | | | | | | | | | X | | | | X | | | | | | | | X | X | | 4 |
| Metestrus | 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

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:25
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F4/5PPM TO CTL**

| | 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 | |
| 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 | 1 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 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 | |
| | 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 | 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 | 2 | 2 | 2 | 2 | 6 | 6 | 6 | 9 | 0 | 0 | 0 | 0 | 3 | 4 | 4 | 7 | 7 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | |
| | 9 | 0 | 1 | 2 | 3 | 2 | 3 | 4 | 5 | 9 | 0 | 1 | 2 | 3 | 9 | 0 | 1 | 4 | 9 | 0 | 1 | 2 | 3 | 6 | 7 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS |
| Proestrus | | | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Diestrus | | X | | X | | | X | | | X | | | | X | | X | X | | | | X | | X | | | |
| Estrus | | | | | | | | X | | | X | | | | X | | | X | | | | X | | X | | |
| Metestrus | X | | | | | | | | | | | | | | | | | | | | X | | | | | |
| Proestrus | | | X | | X | X | | X | | | X | | X | X | | | | | X | | | | | | | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Alveolus, Hyperplasia | 4 | | 2 | 1 | 3 | 3 | 1 | 3 | 1 | 1 | | 2 | 1 | | 2 | 2 | 3 | | | | | | | 2 | | |
| Lobules, Hyperplasia | 3 | | 1 | | | 2 | | 3 | | | | 2 | | | | | | | | | | | | 1 | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:25
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F4/5PPM TO CTL**

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 4 | 4 | 4 | 4 | 4 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 | |
| | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 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 | 1 | 1 | |
| | 1 | 2 | 2 | 2 | 2 | 2 | 6 | 6 | 6 | 6 | 9 | 0 | 0 | 0 | 0 | 3 | 4 | 4 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | 9 | 0 | 1 | 2 | 3 | 2 | 3 | 4 | 5 | 9 | 9 | 0 | 1 | 2 | 3 | 9 | 0 | 1 | 4 | 9 | 0 | 1 | 2 | 3 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | | |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

NONE
 Urinary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 |
| Cyst | | | | | | | | X | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Mineralization | 2 | 4 | 1 | 1 | 1 | 1 | 1 | | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 4 | 1 | 1 | | 1 | 1 | 2 | 1 | | | | | | | | | | | | | 23 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:25
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F4/100PPM TO CTL**

| 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 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 1 | 1 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 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 | | |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | 2 | 2 | 2 | 2 | 2 | 6 | 6 | 6 | 6 | 7 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | | |
| | 4 | 5 | 6 | 7 | 8 | 6 | 7 | 8 | 9 | 0 | 4 | 5 | 6 | 7 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 4 | 5 | 6 | 7 | *TOTALS |

Alimentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|---|-----|
| Liver | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Developmental Malformation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | 24 | |
| Diestrus | X | | X | X | | | X | | | | | | | | | | | | X | X | | | | X | | 7 | |
| Estrus | | | | | | | | | | X | X | X | X | X | X | | | | | | | | X | X | X | 9 | |
| Proestrus | | X | | | X | X | | X | X | X | | | | | | X | X | | | | | | | | | 8 | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | 24 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Decidual Reaction | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | X | X | | X | X | X | 23 | |
| Diestrus | X | | X | X | | | X | | | | | | | | | | | | X | X | X | | | X | | 8 | |
| Estrus | | | | | | | | | | X | X | X | X | X | X | | | | | | | | X | X | X | 9 | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:26
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F4/100PPM TO CTL**

| | 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 | |
| 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 | 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 | |
| | 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 1 | 1 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 5 | 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 | |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 2 | 2 | 2 | 2 | 2 | 6 | 6 | 6 | 7 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | |
| | 4 | 5 | 6 | 7 | 8 | 6 | 7 | 8 | 9 | 0 | 4 | 5 | 6 | 7 | 2 | 3 | 4 | 4 | 5 | 6 | 7 | 8 | 4 | 5 | 6 | 7 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS |
| Proestrus | | | X | | | X | X | | X | X | X | | | | | | X | X | | | | | | | 8 | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Diestrus | X | | X | X | | | | X | | | | | | | | | | X | X | X | | | | X | 8 | |
| Estrus | | | X | | | | | | X | X | X | X | X | X | X | X | X | | | | | X | X | | X | 14 |
| Proestrus | | | | | | X | X | | | | | | | | | | X | | | | | | | | 3 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Alveolus, Hyperplasia | 2 | | 3 | 2 | 4 | | 2 | 3 | 4 | 2 | | 2 | | 3 | | 2 | | | | | | | | | 11 | 2.6 |
| Lobules, Hyperplasia | | | 1 | | 3 | | | 2 | 4 | | | | | 1 | | 1 | | | | | | | | | 6 | 2.0 |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:26
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F4/100PPM TO CTL**

| 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 1 | 1 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5 | 5 | 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 | |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 2 | 2 | 2 | 2 | 2 | 6 | 6 | 6 | 7 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | |
| | 4 | 5 | 6 | 7 | 8 | 6 | 7 | 8 | 9 | 0 | 4 | 5 | 6 | 7 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 4 | 5 | 6 | 7 |
| | *TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

Urinary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | | |
| Cyst | | | X | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Mineralization | | 1 | 1 | 2 | | 3 | 2 | 3 | 3 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 2 | 2 | 3 | 2 | 1 | | 1 | 3 | 2 | 22 | 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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:26
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F4/500PPM TO CTL**

| 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 5 | 5 | 4 | 4 | 1 | 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 | |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | |
| | 2 | 3 | 3 | 3 | 3 | 7 | 7 | 7 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 4 | 5 | 5 | 8 | 8 | 9 | 9 | 9 | 0 | 0 | |
| | 9 | 0 | 1 | 2 | 3 | 1 | 2 | 3 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 9 | 0 | 1 | 8 | 9 | 0 | 1 | 2 | 8 | 9 | |
| | | | | | | | | | | | | | | | | | | | | | | | | *TOTALS | | |

Alimentary System

Liver + 25

Cardiovascular System

NONE

Endocrine System

Adrenal Cortex + 25
 Adrenal Medulla + 25
 Pituitary Gland + 25
 Thyroid Gland + 25

General Body System

NONE

Genital System

Ovary + 25
 Diestrus X 8
 Estrus X 2
 Metestrus X 4
 Proestrus X 11
 Oviduct + 25
 Estrus X 3
 Uterus + 25

* ..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: 99930-91
 Test Type: MULTIGEN CHRONIC
 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: 10/23/2014
 Time Report Requested: 03:19:26
 First Dose M/F: NA / NA
 Lab: NCTR

| CD Rat Female
F4/500PPM TO CTL | 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 | *TOTALS |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|---------|
| | ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 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 | |
| Decidual Reaction | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 23 | |
| Diestrus | | | X | | | X | | X | X | X | | X | X | | | | | | X | | | | | 8 | |
| Estrus | | | | | | | X | | | | | | | | | | | X | | | | | | 2 | |
| Metestrus | | | | | | | | | | | | | | X | X | | X | | | | X | | X | 5 | |
| Proestrus | | X | | X | X | | X | | | | X | X | | X | | | X | | | X | | X | | 10 | |
| Vagina | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Diestrus | | | X | | | X | | X | X | X | | X | X | | | | | | X | | | | | 8 | |
| Estrus | | | | | | X | X | | | | X | | | | | | | | X | | | | | 4 | |
| Metestrus | | | | | | | | | | | | | | X | X | | X | | | | X | | X | 5 | |
| Proestrus | | X | | X | X | | | | | X | | X | | | | X | | | X | | X | | | 8 | |
| Hematopoietic System | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Spleen | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Thymus | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Integumentary System | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Alveolus, Hyperplasia | | | 3 | 3 | | 1 | 2 | | 1 | | 4 | | 3 | | 3 | 2 | | | 2 | 1 | | | | 11 2.3 | |
| Lobules, Hyperplasia | | | 1 | 1 | | | | | | 3 | | 4 | | | | | | | | | | | | 4 2.3 | |
| Skin | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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: 99930-91
Test Type: MULTIGEN CHRONIC
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: 10/23/2014
Time Report Requested: 03:19:26
First Dose M/F: NA / NA
Lab: NCTR

**CD Rat Female
F4/500PPM TO CTL**

| 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 | 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 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 5 | 5 | 4 | 4 | 1 | 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 | |
| | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | |
| | 2 | 3 | 3 | 3 | 3 | 7 | 7 | 7 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 4 | 5 | 5 | 8 | 8 | 9 | 9 | 0 | 0 | |
| | 9 | 0 | 1 | 2 | 3 | 1 | 2 | 3 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 9 | 0 | 1 | 8 | 9 | 0 | 1 | 2 | 8 | 9 |

*TOTALS

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 25 | |
| Mineralization | 1 | 1 | 1 | 1 | 1 | | | | 1 | 1 | 1 | | | | 1 | 1 | | | 1 | 1 | 2 | 1 | 1 | 1 | 16 | 1.1 |
| Pelvis, Unilateral, Dilatation | | | | | | | | | | | | | | | | | | | | | | 3 | | | 1 | 3.0 |

** 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