

Experiment Number: 99920-94
Test Type: SPECIAL STUDY
Route: DOSED FEED
Species/Strain: Rat/CD

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 13:24:44
First Dose M/F: NA / NA
Lab: NCTR

C Number:	MG96006
Lock Date:	12/02/2008
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: 99920-94
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P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
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CD Rat MALE	F1 0PPB	F1 2PPB	F1 10PPB	F1 50PPB	F1/2PPB TO CTL	F1/10PPB TO CTL
Disposition Summary						
Animals Initially In Study	51	50	50	50	50	50
Early Deaths						
Moribund Sacrifice	9	13	17	12	15	7
Natural Death	7	6	3	4	4	10
Survivors						
Moribund Sacrifice				2		
Natural Death	1					
Terminal Sacrifice	34	31	30	32	31	33
Animals Examined Microscopically	51	50	50	50	50	50

ALIMENTARY SYSTEM

Esophagus	(51)	(50)	(50)	(50)	(50)	(49)
Intestine Large, Cecum	(44)	(45)	(47)	(46)	(48)	(43)
Intestine Large, Colon	(45)	(47)	(48)	(47)	(49)	(43)
Intestine Large, Rectum	(45)	(45)	(47)	(46)	(49)	(42)
Intestine Small, Duodenum	(44)	(45)	(48)	(47)	(49)	(42)
Adenocarcinoma	1 (2%)				2 (4%)	
Intestine Small, Ileum	(43)	(45)	(47)	(46)	(48)	(41)
Adenocarcinoma			1 (2%)			
Intestine Small, Jejunum	(43)	(45)	(46)	(46)	(48)	(41)
Adenocarcinoma						
Sarcoma		1 (2%)				
Liver	(49)	(49)	(50)	(49)	(50)	(48)
Cholangiocarcinoma			1 (2%)		1 (2%)	
Hepatocellular Adenoma		3 (6%)	1 (2%)			
Hepatocellular Carcinoma				1 (2%)		1 (2%)
Mesentery	(1)	(1)	(2)	(1)	(1)	(2)

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically

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CD Rat MALE	F1	0PPB	F1	2PPB	F1	10PPB	F1	50PPB	F1/2PPB TO CTL	F1/10PPB TO CTL
Carcinoma, Metastatic, Uncertain Primary Site										1 (50%)
Oral Mucosa	(3)		(2)		(4)		(9)		(5)	(1)
Sarcoma			1 (50%)							
Squamous Cell Carcinoma	3 (100%)				4 (100%)		7 (78%)		3 (60%)	
Pancreas	(46)		(48)		(48)		(48)		(49)	(47)
Salivary Glands	(48)		(50)		(49)		(50)		(50)	(48)
Stomach, Forestomach	(47)		(48)		(49)		(48)		(50)	(46)
Squamous Cell Papilloma	1 (2%)									
Stomach, Glandular	(45)		(47)		(48)		(46)		(50)	(45)
Adenoma									1 (2%)	
Tongue	(0)		(0)		(0)		(0)		(0)	(0)
CARDIOVASCULAR SYSTEM										
Blood Vessel	(51)		(50)		(50)		(50)		(50)	(50)
Heart	(51)		(50)		(50)		(50)		(50)	(48)
Endocardium, Schwannoma Malignant	1 (2%)		2 (4%)							
Schwannoma Benign							1 (2%)			
ENDOCRINE SYSTEM										
Adrenal Cortex	(47)		(50)		(50)		(50)		(49)	(45)
Adenoma	2 (4%)		1 (2%)		2 (4%)		1 (2%)			1 (2%)
Carcinoma					2 (4%)					
Adrenal Medulla	(46)		(48)		(49)		(49)		(49)	(45)
Bilateral, Pheochromocytoma Benign									1 (2%)	
Pheochromocytoma Benign	2 (4%)		2 (4%)		4 (8%)		1 (2%)		3 (6%)	1 (2%)
Pheochromocytoma Complex	1 (2%)		1 (2%)		1 (2%)					
Pheochromocytoma Malignant	1 (2%)		1 (2%)		2 (4%)					
Islets, Pancreatic	(46)		(48)		(49)		(49)		(49)	(47)
Adenoma							2 (4%)			2 (4%)

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CD Rat MALE	F1 0PPB	F1 2PPB	F1 10PPB	F1 50PPB	F1/2PPB TO CTL	F1/10PPB TO CTL
Parathyroid Gland	(49)	(46)	(46)	(46)	(50)	(44)
Adenoma	4 (8%)		1 (2%)	1 (2%)	3 (6%)	1 (2%)
Pituitary Gland	(48)	(50)	(50)	(50)	(50)	(47)
Pars Distalis, Adenoma	25 (52%)	24 (48%)	28 (56%)	16 (32%)	29 (58%)	28 (60%)
Schwannoma Malignant	1 (2%)					
Thyroid Gland	(47)	(49)	(50)	(49)	(50)	(47)
C Cell, Adenoma	5 (11%)		1 (2%)		3 (6%)	1 (2%)
C Cell, Carcinoma		1 (2%)			2 (4%)	
Follicular Cel, Adenoma			1 (2%)			
Follicular Cel, Carcinoma				1 (2%)		
GENERAL BODY SYSTEM						
Tissue NOS	(1)	(0)	(1)	(0)	(1)	(0)
Lipoma			1 (100%)			
Schwannoma Malignant					1 (100%)	
GENITAL SYSTEM						
Coagulating Gland	(46)	(49)	(49)	(49)	(49)	(47)
Carcinoma, Metastatic, Prostate, Dorsal/Lateral Lobe						1 (2%)
Carcinoma, Metastatic, Uncertain Primary Site						1 (2%)
Ductus Deferens	(0)	(0)	(0)	(0)	(0)	(1)
Epididymis	(51)	(50)	(50)	(50)	(50)	(49)
Penis	(0)	(1)	(0)	(0)	(1)	(1)
Squamous Cell Carcinoma, Metastatic, Preputial Gland					1 (100%)	
Preputial Gland	(51)	(50)	(50)	(50)	(50)	(50)
Adenoma					1 (2%)	
Squamous Cell Carcinoma	4 (8%)	5 (10%)	5 (10%)	2 (4%)	4 (8%)	3 (6%)

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Prostate, Dorsal/Lateral Lobe	(36)		(37)		(45)		(41)		(38)	(42)
Carcinoma										1 (2%)
Carcinoma, Metastatic, Uncertain Primary Site										1 (2%)
Prostate, Dorsal/lateral Lobe	(13)		(13)		(5)		(9)		(12)	(7)
Prostate, Ventral Lobe	(49)		(50)		(50)		(50)		(50)	(49)
Carcinoma										1 (2%)
Rete Testes	(46)		(44)		(46)		(47)		(47)	(43)
Seminal Vesicle	(43)		(46)		(47)		(47)		(49)	(43)
Adenoma	1 (2%)									
Carcinoma					1 (2%)		1 (2%)			
Carcinoma, Metastatic, Prostate, Dorsal/Lateral Lobe										1 (2%)
Carcinoma, Metastatic, Uncertain Primary Site										1 (2%)
Testes	(48)		(50)		(50)		(50)		(50)	(48)
Sarcoma									1 (2%)	
Seminoma Benign							1 (2%)			
HEMATOPOIETIC SYSTEM										
Bone Marrow	(46)		(48)		(48)		(48)		(50)	(46)
Lymph Node	(14)		(16)		(16)		(15)		(19)	(14)
Squamous Cell Carcinoma, Metastatic, Preputial Gland									1 (5%)	
Lymph Node, Mandibular	(49)		(50)		(50)		(48)		(50)	(47)
Lymph Node, Mesenteric	(45)		(46)		(49)		(47)		(50)	(44)
Spleen	(48)		(49)		(49)		(49)		(50)	(47)
Hemangiosarcoma										
Thymus	(45)		(44)		(46)		(44)		(46)	(40)
Sarcoma					1 (2%)		1 (2%)			

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Thymoma Benign					1 (2%)	
INTEGUMENTARY SYSTEM						
Mammary Gland	(44)	(45)	(47)	(44)	(45)	(47)
Adenocarcinoma	1 (2%)					
Adenoma					1 (2%)	1 (2%)
Fibroadenoma	1 (2%)	3 (7%)	1 (2%)	2 (5%)		1 (2%)
Fibroma	1 (2%)	3 (7%)			1 (2%)	
Lipoma	1 (2%)					
Skin	(51)	(50)	(50)	(50)	(50)	(49)
Basal Cell Adenoma	1 (2%)	1 (2%)	1 (2%)			
Fibroma	2 (4%)		1 (2%)	2 (4%)		1 (2%)
Hemangioma			1 (2%)			
Keratoacanthoma	2 (4%)	3 (6%)	1 (2%)	2 (4%)	1 (2%)	2 (4%)
Lipoma					1 (2%)	
Osteosarcoma						
Prepuce, Keratoacanthoma						1 (2%)
Prepuce, Squamous Cell Carcinoma						
Sarcoma	4 (8%)		1 (2%)		1 (2%)	
Schwannoma Malignant				1 (2%)		
Sebaceous GI, Adenoma					1 (2%)	
Squamous Cell Carcinoma		1 (2%)				1 (2%)
Squamous Cell Papilloma			1 (2%)		2 (4%)	1 (2%)
MUSCULOSKELETAL SYSTEM						
Bone	(2)	(0)	(0)	(1)	(0)	(0)
Cranium, Nerve, Squamous Cell Carcinoma, Deep Invasion						
Cranium, Osteosarcoma	1 (50%)					

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Cranium, Schwannoma Malignant, Metastatic, Uncertain Primary Site		1 (50%)								
Bone, Femur		(51)		(50)		(50)		(50)	(50)	(50)
Skeletal Muscle		(1)		(1)		(1)		(2)	(2)	(0)
NERVOUS SYSTEM										
Brain, Brain Stem		(49)		(50)		(50)		(50)	(50)	(48)
Astrocytoma Malignant		1 (2%)								
Brain, Cerebellum		(49)		(50)		(50)		(50)	(50)	(48)
Astrocytoma Malignant										
Brain, Cerebrum		(49)		(50)		(50)		(50)	(50)	(48)
Astrocytoma Malignant		1 (2%)								
Granular Cell Tumor Benign				1 (2%)						
Granular Cell Tumor Malignant				1 (2%)		1 (2%)				
Reticulosis Malignant									1 (2%)	
Peripheral Nerve		(0)		(1)		(1)		(2)	(2)	(0)
RESPIRATORY SYSTEM										
Lung		(46)		(46)		(48)		(48)	(50)	(45)
Alveolar/Bronchiolar Adenoma		1 (2%)								
Alveolar/Bronchiolar Carcinoma									1 (2%)	
Carcinoma, Metastatic, Adrenal Cortex						1 (2%)				
Sarcoma, Metastatic, Thymus								1 (2%)		
Squamous Cell Carcinoma, Metastatic, Preputial Gland				1 (2%)						
Nose		(48)		(49)		(50)		(49)	(49)	(48)
Adenoma		1 (2%)								
Osteosarcoma				1 (2%)						
Schwannoma Malignant						1 (2%)				
Trachea		(49)		(50)		(50)		(50)	(50)	(46)

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CD Rat MALE	F1 0PPB	F1 2PPB	F1 10PPB	F1 50PPB	F1/2PPB TO CTL	F1/10PPB TO CTL
SPECIAL SENSES SYSTEM						
Eye	(46)	(46)	(47)	(46)	(49)	(45)
Retrobulbar, Squamous Cell Carcinoma, Deep Invasion				1 (2%)		
Schwannoma Malignant			1 (2%)			
Harderian Gland	(48)	(47)	(48)	(48)	(50)	(46)
Schwannoma Malignant			1 (2%)			
Squamous Cell Carcinoma, Deep Invasion					1 (2%)	
Lacrimal Gland	(0)	(0)	(0)	(2)	(0)	(1)
Zymbal's Gland	(1)	(0)	(0)	(2)	(1)	(0)
Adenoma					1 (100%)	
Carcinoma	1 (100%)			1 (50%)		
Squamous Cell Carcinoma				1 (50%)		
URINARY SYSTEM						
Kidney	(46)	(49)	(48)	(49)	(49)	(47)
Bilateral, Renal Tubule, Adenoma					1 (2%)	
Bilateral, Renal Tubule, Carcinoma		1 (2%)		1 (2%)		
Mesenchymal Tumor Malignant				1 (2%)	1 (2%)	
Renal Tubule, Adenoma					2 (4%)	
Renal Tubule, Carcinoma					1 (2%)	
Sarcoma						
Transit Epithe, Papilloma	1 (2%)					
Urethra	(2)	(2)	(0)	(2)	(1)	(5)
Urinary Bladder	(45)	(48)	(49)	(49)	(49)	(45)
SYSTEMIC LESIONS						
Multiple Organ	*(51)	*(50)	*(50)	*(50)	*(50)	*(50)
Leukemia Granulocytic		2 (4%)				

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CD Rat MALE	F1	0PPB	F1	2PPB	F1	10PPB	F1	50PPB	F1/2PPB TO CTL	F1/10PPB TO CTL
Lymphoma Malignant		1 (2%)						2 (4%)	1 (2%)	2 (4%)
Mesothelioma Benign						2 (4%)				

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CD Rat MALE	F1/50PPB TO CTL
Disposition Summary	
Animals Initially In Study	50
Early Deaths	
Moribund Sacrifice	14
Natural Death	3
Survivors	
Moribund Sacrifice	
Natural Death	
Terminal Sacrifice	33
Animals Examined Microscopically	50

ALIMENTARY SYSTEM

Esophagus	(50)
Intestine Large, Cecum	(46)
Intestine Large, Colon	(48)
Intestine Large, Rectum	(48)
Intestine Small, Duodenum	(47)
Adenocarcinoma	
Intestine Small, Ileum	(45)
Adenocarcinoma	
Intestine Small, Jejunum	(48)
Adenocarcinoma	1 (2%)
Sarcoma	
Liver	(49)
Cholangiocarcinoma	1 (2%)
Hepatocellular Adenoma	1 (2%)
Hepatocellular Carcinoma	1 (2%)
Mesentery	(0)

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Carcinoma, Metastatic, Uncertain Primary Site	
Oral Mucosa	(6)
Sarcoma	
Squamous Cell Carcinoma	4 (67%)
Pancreas	(50)
Salivary Glands	(49)
Stomach, Forestomach	(49)
Squamous Cell Papilloma	
Stomach, Glandular	(49)
Adenoma	
Tongue	(1)
<hr/>	
CARDIOVASCULAR SYSTEM	
Blood Vessel	(50)
Heart	(50)
Endocardium, Schwannoma Malignant	
Schwannoma Benign	
<hr/>	
ENDOCRINE SYSTEM	
Adrenal Cortex	(50)
Adenoma	1 (2%)
Carcinoma	
Adrenal Medulla	(50)
Bilateral, Pheochromocytoma Benign	
Pheochromocytoma Benign	1 (2%)
Pheochromocytoma Complex	
Pheochromocytoma Malignant	
Islets, Pancreatic	(50)
Adenoma	

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Parathyroid Gland	(50)
Adenoma	
Pituitary Gland	(49)
Pars Distalis, Adenoma	24 (49%)
Schwannoma Malignant	
Thyroid Gland	(49)
C Cell, Adenoma	1 (2%)
C Cell, Carcinoma	1 (2%)
Follicular Cel, Adenoma	
Follicular Cel, Carcinoma	
<hr/>	
GENERAL BODY SYSTEM	
Tissue NOS	(0)
Lipoma	
Schwannoma Malignant	
<hr/>	
GENITAL SYSTEM	
Coagulating Gland	(48)
Carcinoma, Metastatic, Prostate, Dorsal/Lateral Lobe	
Carcinoma, Metastatic, Uncertain Primary Site	
Ductus Deferens	(0)
Epididymis	(50)
Penis	(0)
Squamous Cell Carcinoma, Metastatic, Preputial Gland	
Preputial Gland	(50)
Adenoma	
Squamous Cell Carcinoma	1 (2%)

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Prostate, Dorsal/Lateral Lobe	(38)
Carcinoma	
Carcinoma, Metastatic, Uncertain Primary Site	
Prostate, Dorsal/lateral Lobe	(12)
Prostate, Ventral Lobe	(50)
Carcinoma	
Rete Testes	(46)
Seminal Vesicle	(48)
Adenoma	
Carcinoma	
Carcinoma, Metastatic, Prostate, Dorsal/Lateral Lobe	
Carcinoma, Metastatic, Uncertain Primary Site	
Testes	(50)
Sarcoma	
Seminoma Benign	
<hr/>	
HEMATOPOIETIC SYSTEM	
Bone Marrow	(49)
Lymph Node	(19)
Squamous Cell Carcinoma, Metastatic, Preputial Gland	
Lymph Node, Mandibular	(50)
Lymph Node, Mesenteric	(48)
Spleen	(50)
Hemangiosarcoma	1 (2%)
Thymus	(47)
Sarcoma	

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b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94
Test Type: SPECIAL STUDY
Route: DOSED FEED
Species/Strain: Rat/CD

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 13:24:45
First Dose M/F: NA / NA
Lab: NCTR

CD Rat MALE	F1/50PPB TO CTL
<hr/>	
Thymoma Benign	
<hr/>	
INTEGUMENTARY SYSTEM	
Mammary Gland	(48)
Adenocarcinoma	
Adenoma	2 (4%)
Fibroadenoma	1 (2%)
Fibroma	1 (2%)
Lipoma	
Skin	(50)
Basal Cell Adenoma	2 (4%)
Fibroma	
Hemangioma	
Keratoacanthoma	1 (2%)
Lipoma	
Osteosarcoma	1 (2%)
Prepuce, Keratoacanthoma	
Prepuce, Squamous Cell Carcinoma	1 (2%)
Sarcoma	
Schwannoma Malignant	
Sebaceous GI, Adenoma	
Squamous Cell Carcinoma	1 (2%)
Squamous Cell Papilloma	
<hr/>	
MUSCULOSKELETAL SYSTEM	
Bone	(1)
Cranium, Nerve, Squamous Cell Carcinoma, Deep Invasion	1 (100%)
Cranium, Osteosarcoma	

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 13:24:45

First Dose M/F: NA / NA

Lab: NCTR

CD Rat MALE	F1/50PPB TO CTL
Cranium, Schwannoma Malignant, Metastatic, Uncertain Primary Site	
Bone, Femur	(50)
Skeletal Muscle	(1)
<hr/>	
NERVOUS SYSTEM	
Brain, Brain Stem	(50)
Astrocytoma Malignant	1 (2%)
Brain, Cerebellum	(50)
Astrocytoma Malignant	1 (2%)
Brain, Cerebrum	(50)
Astrocytoma Malignant	1 (2%)
Granular Cell Tumor Benign	1 (2%)
Granular Cell Tumor Malignant	
Reticulosis Malignant	
Peripheral Nerve	(0)
<hr/>	
RESPIRATORY SYSTEM	
Lung	(50)
Alveolar/Bronchiolar Adenoma	
Alveolar/Bronchiolar Carcinoma	
Carcinoma, Metastatic, Adrenal Cortex	
Sarcoma, Metastatic, Thymus	
Squamous Cell Carcinoma, Metastatic, Preputial Gland	
Nose	(50)
Adenoma	
Osteosarcoma	
Schwannoma Malignant	
Trachea	(50)

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 13:24:45

First Dose M/F: NA / NA

Lab: NCTR

CD Rat MALE	F1/50PPB TO CTL
<hr/>	
SPECIAL SENSES SYSTEM	
Eye	(48)
Retrobulbar, Squamous Cell Carcinoma, Deep Invasion	
Schwannoma Malignant	
Harderian Gland	(50)
Schwannoma Malignant	
Squamous Cell Carcinoma, Deep Invasion	1 (2%)
Lacrimal Gland	(1)
Zymbal's Gland	(0)
Adenoma	
Carcinoma	
Squamous Cell Carcinoma	
<hr/>	
URINARY SYSTEM	
Kidney	(49)
Bilateral, Renal Tubule, Adenoma	2 (4%)
Bilateral, Renal Tubule, Carcinoma	
Mesenchymal Tumor Malignant	
Renal Tubule, Adenoma	
Renal Tubule, Carcinoma	
Sarcoma	1 (2%)
Transit Epithe, Papilloma	
Urethra	(1)
Urinary Bladder	(49)
<hr/>	
SYSTEMIC LESIONS	
Multiple Organ	*(50)
Leukemia Granulocytic	

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 13:24:45

First Dose M/F: NA / NA

Lab: NCTR

CD Rat MALE	F1/50PPB TO CTL
Lymphoma Malignant	
Mesothelioma Benign	

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 13:24:45
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat MALE	F1	0PPB	F1	2PPB	F1	10PPB	F1	50PPB	F1/2PPB TO CTL	F1/10PPB TO CTL	
Tumor Summary for MALE											
Total Animals with Primary Neoplasms (b)		42		36		43		35		41	33
Total Primary Neoplasms		73		59		70		50		74	50
Total Animals with Benign Neoplasms		36		29		34		23		37	29
Total Benign Neoplasms		51		41		45		29		53	41
Total Animals with Malignant Neoplasms		19		15		19		19		17	8
Total Malignant Neoplasms		22		18		23		21		21	9
Total Animals with Metastatic Neoplasms		1		1		1		1		2	2
Total Metastatic Neoplasms		1		1		1		1		2	6
Total Animals with Malignant Neoplasms Uncertain Primary Site		1									1
Total Animals with Neoplasms Uncertain - Benign or Malignant											
Total Uncertain Neoplasms											

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94
Test Type: SPECIAL STUDY
Route: DOSED FEED
Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 13:24:45
First Dose M/F: NA / NA
Lab: NCTR

CD Rat MALE	F1/50PPB TO CTL
Tumor Summary for MALE	
Total Animals with Primary Neoplasms (b)	35
Total Primary Neoplasms	57
Total Animals with Benign Neoplasms	29
Total Benign Neoplasms	38
Total Animals with Malignant Neoplasms	15
Total Malignant Neoplasms	19
Total Animals with Metastatic Neoplasms	
Total Metastatic Neoplasms	
Total Animals with Malignant Neoplasms Uncertain Primary Site	
Total Animals with Neoplasms Uncertain - Benign or Malignant	
Total Uncertain Neoplasms	

END OF MALE DATA

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 13:24:45
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat FEMALE	F1 0PPB	F1 2PPB	F1 10 PPB	F1 50 PPB	F1/2PPB TO CTL	F1/10PPB TO CTL
Disposition Summary						
Animals Initially In Study	51	50	50	50	50	50
Early Deaths						
Moribund Sacrifice	24	22	27	17	26	27
Natural Death		5	3	8	7	1
Survivors						
Moribund Sacrifice	1		1		1	
Terminal Sacrifice	26	23	19	25	16	22
Animals Examined Microscopically	51	50	50	50	50	50
ALIMENTARY SYSTEM						
Esophagus	(51)	(50)	(49)	(50)	(50)	(50)
Intestine Large, Cecum	(51)	(50)	(49)	(49)	(50)	(50)
Intestine Large, Colon	(51)	(50)	(49)	(49)	(50)	(50)
Carcinoma					1 (2%)	
Intestine Large, Rectum	(51)	(50)	(49)	(50)	(50)	(50)
Granular Cell Tumor Malignant, Metastatic, Vagina				1 (2%)		
Leiomyosarcoma, Metastatic, Uterus		1 (2%)				
Intestine Small, Duodenum	(51)	(50)	(49)	(49)	(50)	(50)
Leiomyoma						
Intestine Small, Ileum	(51)	(50)	(48)	(49)	(48)	(50)
Intestine Small, Jejunum	(51)	(50)	(47)	(47)	(48)	(50)
Leiomyoma						1 (2%)
Liver	(51)	(50)	(49)	(50)	(50)	(50)
Cholangiocarcinoma	1 (2%)					
Cholangioma						
Hepatocellular Adenoma	1 (2%)	1 (2%)	1 (2%)	2 (4%)	1 (2%)	1 (2%)
Hepatocellular Adenoma, Multiple						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 13:24:45
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat FEMALE	F1 0PPB	F1 2PPB	F1 10 PPB	F1 50 PPB	F1/2PPB TO CTL	F1/10PPB TO CTL
Mesentery	(2)	(2)	(0)	(1)	(2)	(1)
Leiomyosarcoma, Metastatic, Uterus		1 (50%)				
Oral Mucosa	(3)	(1)	(4)	(4)	(5)	(7)
Squamous Cell Carcinoma	3 (100%)	1 (100%)	1 (25%)	2 (50%)	3 (60%)	2 (29%)
Pancreas	(51)	(50)	(49)	(49)	(50)	(50)
Acinar Cell, Adenocarcinoma				1 (2%)		
Acinar Cell, Adenoma		1 (2%)				
Salivary Glands	(51)	(49)	(49)	(50)	(50)	(50)
Stomach, Forestomach	(51)	(50)	(49)	(50)	(50)	(50)
Squamous Cell Papilloma	1 (2%)		1 (2%)		1 (2%)	
Stomach, Glandular	(51)	(50)	(49)	(50)	(50)	(50)
Tooth	(0)	(0)	(0)	(0)	(1)	(0)
CARDIOVASCULAR SYSTEM						
Blood Vessel	(51)	(50)	(49)	(50)	(50)	(50)
Heart	(51)	(50)	(49)	(50)	(50)	(50)
Endocardium, Schwannoma Malignant		1 (2%)				
ENDOCRINE SYSTEM						
Adrenal Cortex	(51)	(50)	(49)	(50)	(50)	(50)
Adenoma	1 (2%)	2 (4%)	1 (2%)	1 (2%)	1 (2%)	2 (4%)
Adrenal Medulla	(48)	(50)	(49)	(50)	(49)	(48)
Pheochromocytoma Benign	2 (4%)					1 (2%)
Islets, Pancreatic	(51)	(50)	(49)	(49)	(50)	(50)
Adenoma	1 (2%)	1 (2%)		1 (2%)		
Carcinoma			1 (2%)	1 (2%)		
Parathyroid Gland	(48)	(47)	(46)	(43)	(46)	(44)
Adenoma		1 (2%)		1 (2%)		
Carcinoma, Metastatic, Thyroid Gland		1 (2%)				

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 13:24:45

First Dose M/F: NA / NA

Lab: NCTR

CD Rat FEMALE	F1 0PPB	F1 2PPB	F1 10 PPB	F1 50 PPB	F1/2PPB TO CTL	F1/10PPB TO CTL
Pituitary Gland	(51)	(50)	(50)	(50)	(50)	(50)
Pars Distalis, Adenoma	38 (75%)	35 (70%)	40 (80%)	37 (74%)	37 (74%)	36 (72%)
Pars Distalis, Carcinoma		1 (2%)		1 (2%)	1 (2%)	1 (2%)
Pars Nervosa, Schwannoma Malignant, Metastatic, Nose				1 (2%)		
Thyroid Gland	(51)	(50)	(49)	(50)	(50)	(50)
Bilateral, C Cell, Carcinoma		1 (2%)				
C Cell, Adenoma	2 (4%)	3 (6%)	1 (2%)	1 (2%)	1 (2%)	3 (6%)
C Cell, Carcinoma					1 (2%)	
Follicular Cel, Adenoma	1 (2%)				1 (2%)	
Follicular Cel, Carcinoma					2 (4%)	
GENERAL BODY SYSTEM						
Tissue NOS	(0)	(0)	(1)	(0)	(0)	(0)
Sarcoma			1 (100%)			
GENITAL SYSTEM						
Clitoral Gland	(50)	(49)	(48)	(50)	(50)	(49)
Adenoma				2 (4%)		
Carcinoma		1 (2%)		1 (2%)	1 (2%)	
Sarcoma					1 (2%)	
Squamous Cell Carcinoma		1 (2%)		1 (2%)		
Squamous Cell Papilloma	1 (2%)					
Ovary	(51)	(50)	(49)	(50)	(50)	(50)
Carcinoma, Metastatic, Kidney					1 (2%)	
Granulosa Cell Tumor Benign			1 (2%)		1 (2%)	
Sertoli Cell Tumor Benign	1 (2%)	1 (2%)	1 (2%)			
Oviduct	(51)	(50)	(49)	(50)	(50)	(50)
Uterus	(51)	(50)	(49)	(50)	(50)	(50)
Cervix, Squamous Cell Carcinoma				1 (2%)		

a - Number of animals examined microscopically at site and number of animals with lesion

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* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 13:24:45
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat FEMALE	F1 0PPB	F1 2PPB	F1 10 PPB	F1 50 PPB	F1/2PPB TO CTL	F1/10PPB TO CTL
Endometrium, Adenocarcinoma		1 (2%)				
Endometrium, Adenoma	1 (2%)			2 (4%)	1 (2%)	2 (4%)
Fibrous Histiocytoma						1 (2%)
Leiomyoma		1 (2%)				
Leiomyosarcoma		1 (2%)				
Polyp Stromal	2 (4%)	4 (8%)	5 (10%)	5 (10%)	5 (10%)	6 (12%)
Sarcoma Stromal						1 (2%)
Vagina	(51)	(50)	(49)	(49)	(50)	(48)
Granular Cell Tumor Benign			1 (2%)			
Granular Cell Tumor Malignant				1 (2%)		
Polyp		1 (2%)	1 (2%)		1 (2%)	
HEMATOPOIETIC SYSTEM						
Bone Marrow	(51)	(50)	(49)	(50)	(50)	(50)
Lymph Node	(16)	(14)	(6)	(10)	(15)	(12)
Carcinoma, Metastatic, Thyroid Gland					1 (7%)	
Deep Cervical, Carcinoma, Metastatic, Thyroid Gland					1 (7%)	
Lymph Node, Mandibular	(51)	(50)	(49)	(50)	(50)	(49)
Lymph Node, Mesenteric	(51)	(50)	(47)	(50)	(50)	(50)
Spleen	(51)	(50)	(49)	(50)	(50)	(50)
Sarcoma				1 (2%)		
Thymus	(51)	(44)	(45)	(48)	(44)	(46)
Thymoma Benign						
INTEGUMENTARY SYSTEM						
Mammary Gland	(51)	(49)	(49)	(50)	(49)	(50)
Adenocarcinoma	5 (10%)	9 (18%)	9 (18%)	6 (12%)	3 (6%)	8 (16%)
Adenocarcinoma, Multiple	3 (6%)	1 (2%)		3 (6%)		
Fibroadenoma	18 (35%)	14 (29%)	18 (37%)	22 (44%)	16 (33%)	15 (30%)

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 13:24:45

First Dose M/F: NA / NA

Lab: NCTR

CD Rat FEMALE	F1 0PPB	F1 2PPB	F1 10 PPB	F1 50 PPB	F1/2PPB TO CTL	F1/10PPB TO CTL
Fibroadenoma, Multiple	14 (27%)	14 (29%)	15 (31%)	5 (10%)	10 (20%)	13 (26%)
Skin	(51)	(50)	(49)	(50)	(50)	(50)
Basal Cell Carcinoma						1 (2%)
Fibrous Histiocytoma						1 (2%)
Keratoacanthoma			1 (2%)			1 (2%)
Sarcoma		1 (2%)				
Sebaceous GI, Carcinoma	1 (2%)					
Squamous Cell Papilloma	1 (2%)					
Subcut Tiss, Granular Cell Tumor Benign						
Subcut Tiss, Leiomyosarcoma, Metastatic, Uterus		1 (2%)				
Subcut Tiss, Lipoma						
MUSCULOSKELETAL SYSTEM						
Bone, Femur	(51)	(50)	(49)	(50)	(50)	(50)
Skeletal Muscle	(1)	(0)	(1)	(1)	(0)	(4)
NERVOUS SYSTEM						
Brain, Brain Stem	(51)	(50)	(49)	(50)	(50)	(50)
Carcinoma, Metastatic, Pituitary Gland		1 (2%)		1 (2%)	1 (2%)	1 (2%)
Brain, Cerebellum	(51)	(50)	(49)	(50)	(50)	(50)
Brain, Cerebrum	(51)	(50)	(49)	(50)	(50)	(50)
Astrocytoma Nos					1 (2%)	
Granular Cell Tumor Benign	1 (2%)					
Oligodendroglioma Nos			1 (2%)			
Peripheral Nerve	(1)	(0)	(0)	(0)	(0)	(2)
RESPIRATORY SYSTEM						
Lung	(51)	(50)	(49)	(50)	(50)	(50)
Alveolar/Bronchiolar Adenoma		1 (2%)				1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 13:24:45
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat FEMALE	F1	0PPB	F1	2PPB	F1	10 PPB	F1	50 PPB	F1/2PPB TO CTL	F1/10PPB TO CTL
Nephroblastoma, Metastatic, Kidney										1 (2%)
Nose	(51)		(50)		(49)		(50)		(50)	(50)
Schwannoma Malignant								1 (2%)		
Trachea	(51)		(50)		(49)		(50)		(50)	(50)
SPECIAL SENSES SYSTEM										
Ear	(0)		(1)		(0)		(0)		(0)	(0)
Neural Crest Tumor				1 (100%)						
Eye	(51)		(49)		(48)		(49)		(50)	(50)
Squamous Cell Carcinoma, Deep Invasion									1 (2%)	
Harderian Gland	(51)		(49)		(49)		(50)		(50)	(50)
Zymbal's Gland	(0)		(0)		(0)		(0)		(0)	(0)
Carcinoma										
URINARY SYSTEM										
Kidney	(51)		(50)		(49)		(50)		(50)	(50)
Bilateral, Renal Tubule, Carcinoma				2 (4%)			1 (2%)		1 (2%)	
Nephroblastoma										1 (2%)
Renal Tubule, Adenoma							1 (2%)			
Urinary Bladder	(51)		(49)		(49)		(48)		(48)	(50)
SYSTEMIC LESIONS										
Multiple Organ	*(51)		*(50)		*(50)		*(50)		*(50)	*(50)
Leukemia Mononuclear							1 (2%)			
Lymphoma Malignant							1 (2%)		2 (4%)	1 (2%)
Mesothelioma Malignant										1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94
Test Type: SPECIAL STUDY
Route: DOSED FEED
Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 13:24:45
First Dose M/F: NA / NA
Lab: NCTR

CD Rat FEMALE	F1/50PPB TO CTL
Disposition Summary	
Animals Initially In Study	50
Early Deaths	
Moribund Sacrifice	22
Natural Death	6
Survivors	
Moribund Sacrifice	
Terminal Sacrifice	22
Animals Examined Microscopically	50

ALIMENTARY SYSTEM

Esophagus	(50)
Intestine Large, Cecum	(50)
Intestine Large, Colon	(50)
Carcinoma	
Intestine Large, Rectum	(50)
Granular Cell Tumor Malignant, Metastatic, Vagina	
Leiomyosarcoma, Metastatic, Uterus	
Intestine Small, Duodenum	(50)
Leiomyoma	1 (2%)
Intestine Small, Ileum	(49)
Intestine Small, Jejunum	(50)
Leiomyoma	
Liver	(50)
Cholangiocarcinoma	
Cholangioma	1 (2%)
Hepatocellular Adenoma	2 (4%)
Hepatocellular Adenoma, Multiple	1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

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First Dose M/F: NA / NA

Lab: NCTR

CD Rat FEMALE	F1/50PPB TO CTL
Mesentery	(0)
Leiomyosarcoma, Metastatic, Uterus	
Oral Mucosa	(4)
Squamous Cell Carcinoma	1 (25%)
Pancreas	(50)
Acinar Cell, Adenocarcinoma	
Acinar Cell, Adenoma	
Salivary Glands	(50)
Stomach, Forestomach	(50)
Squamous Cell Papilloma	
Stomach, Glandular	(50)
Tooth	(0)

CARDIOVASCULAR SYSTEM

Blood Vessel	(50)
Heart	(50)
Endocardium, Schwannoma Malignant	

ENDOCRINE SYSTEM

Adrenal Cortex	(50)
Adenoma	3 (6%)
Adrenal Medulla	(49)
Pheochromocytoma Benign	2 (4%)
Islets, Pancreatic	(50)
Adenoma	1 (2%)
Carcinoma	
Parathyroid Gland	(46)
Adenoma	1 (2%)
Carcinoma, Metastatic, Thyroid Gland	

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 13:24:45

First Dose M/F: NA / NA

Lab: NCTR

CD Rat FEMALE	F1/50PPB TO CTL
Pituitary Gland	(49)
Pars Distalis, Adenoma	34 (69%)
Pars Distalis, Carcinoma	1 (2%)
Pars Nervosa, Schwannoma Malignant, Metastatic, Nose	
Thyroid Gland	(50)
Bilateral, C Cell, Carcinoma	
C Cell, Adenoma	
C Cell, Carcinoma	1 (2%)
Follicular Cel, Adenoma	
Follicular Cel, Carcinoma	

GENERAL BODY SYSTEM

Tissue NOS	(0)
Sarcoma	

GENITAL SYSTEM

Clitoral Gland	(49)
Adenoma	
Carcinoma	
Sarcoma	
Squamous Cell Carcinoma	
Squamous Cell Papilloma	
Ovary	(50)
Carcinoma, Metastatic, Kidney	
Granulosa Cell Tumor Benign	2 (4%)
Sertoli Cell Tumor Benign	
Oviduct	(50)
Uterus	(50)
Cervix, Squamous Cell Carcinoma	

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* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 13:24:45

First Dose M/F: NA / NA

Lab: NCTR

CD Rat FEMALE	F1/50PPB TO CTL
Endometrium, Adenocarcinoma	
Endometrium, Adenoma	1 (2%)
Fibrous Histiocytoma	
Leiomyoma	
Leiomyosarcoma	
Polyp Stromal	7 (14%)
Sarcoma Stromal	
Vagina	(50)
Granular Cell Tumor Benign	
Granular Cell Tumor Malignant	
Polyp	

HEMATOPOIETIC SYSTEM

Bone Marrow	(50)
Lymph Node	(13)
Carcinoma, Metastatic, Thyroid Gland	
Deep Cervical, Carcinoma, Metastatic, Thyroid Gland	
Lymph Node, Mandibular	(50)
Lymph Node, Mesenteric	(50)
Spleen	(50)
Sarcoma	
Thymus	(48)
Thymoma Benign	1 (2%)

INTEGUMENTARY SYSTEM

Mammary Gland	(50)
Adenocarcinoma	11 (22%)
Adenocarcinoma, Multiple	
Fibroadenoma	21 (42%)

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Experiment Number: 99920-94

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 13:24:45

First Dose M/F: NA / NA

Lab: NCTR

CD Rat FEMALE	F1/50PPB TO CTL
Fibroadenoma, Multiple	13 (26%)
Skin	(50)
Basal Cell Carcinoma	
Fibrous Histiocytoma	1 (2%)
Keratoacanthoma	
Sarcoma	1 (2%)
Sebaceous GI, Carcinoma	
Squamous Cell Papilloma	
Subcut Tiss, Granular Cell Tumor Benign	1 (2%)
Subcut Tiss, Leiomyosarcoma, Metastatic, Uterus	
Subcut Tiss, Lipoma	1 (2%)
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MUSCULOSKELETAL SYSTEM	
Bone, Femur	(50)
Skeletal Muscle	(1)
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NERVOUS SYSTEM	
Brain, Brain Stem	(50)
Carcinoma, Metastatic, Pituitary Gland	1 (2%)
Brain, Cerebellum	(50)
Brain, Cerebrum	(50)
Astrocytoma Nos	
Granular Cell Tumor Benign	
Oligodendroglioma Nos	
Peripheral Nerve	(0)
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RESPIRATORY SYSTEM	
Lung	(50)
Alveolar/Bronchiolar Adenoma	

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Experiment Number: 99920-94
Test Type: SPECIAL STUDY
Route: DOSED FEED
Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 13:24:45
First Dose M/F: NA / NA
Lab: NCTR

CD Rat FEMALE	F1/50PPB TO CTL
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Nephroblastoma, Metastatic, Kidney	
Nose	(50)
Schwannoma Malignant	
Trachea	(50)
<hr/>	
SPECIAL SENSES SYSTEM	
Ear	(0)
Neural Crest Tumor	
Eye	(47)
Squamous Cell Carcinoma, Deep Invasion	
Harderian Gland	(50)
Zymbal's Gland	(1)
Carcinoma	1 (100%)
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URINARY SYSTEM	
Kidney	(50)
Bilateral, Renal Tubule, Carcinoma	
Nephroblastoma	
Renal Tubule, Adenoma	
Urinary Bladder	(49)
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SYSTEMIC LESIONS	
Multiple Organ	*(50)
Leukemia Mononuclear	
Lymphoma Malignant	
Mesothelioma Malignant	
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* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94
 Test Type: SPECIAL STUDY
 Route: DOSED FEED
 Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 13:24:45
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat FEMALE	F1 0PPB	F1 2PPB	F1 10 PPB	F1 50 PPB	F1/2PPB TO CTL	F1/10PPB TO CTL
Tumor Summary for FEMALE						
Total Animals with Primary Neoplasms (b)	48	47	48	50	46	49
Total Primary Neoplasms	99	102	100	103	94	100
Total Animals with Benign Neoplasms	48	44	48	47	45	45
Total Benign Neoplasms	86	80	87	80	76	82
Total Animals with Malignant Neoplasms	11	18	11	16	13	17
Total Malignant Neoplasms	13	21	12	23	17	18
Total Animals with Metastatic Neoplasms		3		2	4	2
Total Metastatic Neoplasms		5		3	4	2
Total Animals with Malignant Neoplasms Uncertain Primary Site						
Total Animals with Neoplasms Uncertain - Benign or Malignant		1	1		1	
Total Uncertain Neoplasms		1	1		1	

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* Number of animals with any tissue examined microscopically

Experiment Number: 99920-94
Test Type: SPECIAL STUDY
Route: DOSED FEED
Species/Strain: Rat/CD

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 13:24:45
First Dose M/F: NA / NA
Lab: NCTR

CD Rat FEMALE	F1/50PPB TO CTL
Tumor Summary for FEMALE	
Total Animals with Primary Neoplasms (b)	49
Total Primary Neoplasms	110
Total Animals with Benign Neoplasms	47
Total Benign Neoplasms	93
Total Animals with Malignant Neoplasms	16
Total Malignant Neoplasms	17
Total Animals with Metastatic Neoplasms	1
Total Metastatic Neoplasms	1
Total Animals with Malignant Neoplasms Uncertain Primary Site	
Total Animals with Neoplasms Uncertain - Benign or Malignant	
Total Uncertain Neoplasms	

**** END OF REPORT ****

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

* Number of animals with any tissue examined microscopically