

**Experiment Number:** 99920-93  
**Test Type:** SPECIAL STUDY  
**Route:** DOSED FEED  
**Species/Strain:** Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
**Test Compound:** ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
**CAS Number:** 57-63-6

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 11:56:01  
**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



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Table with columns for DAY ON TEST (0-30) and ANIMAL ID (0-30). Rows include CD Rat Male F3 OPPB, Lymphoma Malignant, Stomach, Forestomach, Stomach, Glandular, Cardiovascular System (Blood Vessel, Heart), Endocrine System (Adrenal Cortex, Adrenal Medulla, Pheochromocytoma, Islets, Parathyroid Gland, Pituitary Gland, Thyroid Gland).

\* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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| CD Rat Male<br>F3 OPPB | DAY ON TEST | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                        |             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                        |             | 1         | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|                        |             | 5         | 2 | 2 | 2 | 2 | 6 | 8 | 9 | 9 | 0 | 3 | 4 | 4 | 6 | 7 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 4 |
|                        |             | 4         | 2 | 9 | 1 | 7 | 2 | 5 | 0 | 9 | 1 | 0 | 6 | 9 | 0 | 3 | 0 | 3 | 2 | 1 | 3 | 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         | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |   |
|                        |             | 2         | 1 | 1 | 4 | 5 | 2 | 7 | 8 | 0 | 5 | 1 | 2 | 3 | 3 | 4 | 6 | 6 | 7 | 0 | 1 | 1 | 1 | 1 | 2 | 4 | 4 | 5 |   |
|                        |             | 1         | 4 | 9 | 6 | 8 | 5 | 5 | 5 | 3 | 2 | 4 | 0 | 0 | 2 | 5 | 6 | 7 | 0 | 9 | 0 | 1 | 2 | 9 | 0 | 4 | 9 | 0 |   |

**General Body System**

NONE

**Genital System**

|                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coagulating Gland             | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Epididymis                    | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant            |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Preputial Gland               | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant            |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Squamous Cell Carcinoma       |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Prostate, Dorsal/Lateral Lobe |   | + | + | + | + | + |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   | + |   |   |
| Lymphoma Malignant            |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Prostate, Ventral Lobe        | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant            |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Rete Testes                   |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | M | + | + | + | + | + | + | + | M | + |
| Seminal Vesicle               | A | + | A | A | + | + | + | + | + | + | + | A | A | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant            |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Testes                        |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant            |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**Hematopoietic System**

|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow        | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
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| CD Rat Male<br>F3 OPPB          | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                 | ANIMAL ID   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                 | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                                 | 1           | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 5                               | 2           | 2 | 2 | 2 | 6 | 8 | 9 | 9 | 0 | 3 | 4 | 4 | 6 | 7 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 4 | 4 |   |
| 4                               | 2           | 9 | 1 | 7 | 2 | 5 | 0 | 9 | 1 | 0 | 6 | 9 | 0 | 3 | 0 | 3 | 2 | 1 | 3 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| Lymph Node                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Axillary, Lymphoma Malignant    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inguinal, Lymphoma Malignant    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mediastinal, Lymphoma Malignant |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mandibular          | A           | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + |   |
| Lymphoma Malignant              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mesenteric          | A           | + | + | A | + | + | + | + | + | + | A | A | + | M | + | + | + | A | + | + | + | + | + | + | + | + | + | + |   |
| Lymphoma Malignant              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Spleen                          | A           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Lymphoma Malignant              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thymus                          | A           | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Lymphoma Malignant              |             |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Integumentary System</b>     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mammary Gland                   | A           | M | A | + | + | M | + | M | + | + | + | A | + | M | + | + | + | M | + | + | + | + | + | + | + | + | + | + |   |
| Fibroma                         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Skin                            | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Basal Cell Adenoma              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Sarcoma                         |             |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Musculoskeletal System</b>   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bone, Femur                     | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Skeletal Muscle                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
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First Dose M/F: NA / NA

Lab: NCTR

Table with columns for DAY ON TEST, ANIMAL ID, and 30 columns of numerical data. Includes labels 'CD Rat Male' and 'F3 OPPB'.

Nervous System

Table showing findings for Nervous System: Brain, Brain Stem, Brain, Cerebellum, Brain, Cerebrum, Osteoma, Peripheral Nerve, Spinal Cord.

Respiratory System

Table showing findings for Respiratory System: Lung, Lymphoma Malignant, Nose, Lymphoma Malignant, Trachea, Lymphoma Malignant.

Special Senses System

Table showing findings for Special Senses System: Eye, Lymphoma Malignant, Retrobulbar, Squamous Cell Carcinoma, Deep Invasion, Harderian Gland, Lymphoma Malignant.

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+ ..Tissue examined microscopically
X ..Lesion present
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| CD Rat Male<br>F3 OPPB  | DAY ON TEST | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|-------------------------|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
|                         |             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |   |   |  |
|                         |             | 1         | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |   |   |   |   |  |
|                         |             | 5         | 2 | 2 | 2 | 2 | 6 | 8 | 9 | 9 | 0 | 3 | 4 | 4 | 6 | 7 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 4 | 4 | 4 |   |   |   |   |  |
|                         |             | 4         | 2 | 9 | 1 | 7 | 2 | 5 | 0 | 9 | 1 | 0 | 6 | 9 | 0 | 3 | 0 | 3 | 2 | 1 | 3 | 9 | 9 | 9 | 0 | 0 | 0 | 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         | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |   |   |   |   |  |
|                         |             | 2         | 1 | 1 | 4 | 5 | 2 | 7 | 8 | 0 | 5 | 1 | 2 | 3 | 3 | 4 | 6 | 6 | 7 | 0 | 1 | 1 | 1 | 1 | 2 | 4 | 4 | 5 | 5 | 5 | 5 |   |   |   |   |  |
|                         |             | 1         | 4 | 9 | 6 | 8 | 5 | 5 | 5 | 3 | 2 | 4 | 0 | 0 | 2 | 5 | 6 | 7 | 0 | 9 | 0 | 1 | 1 | 2 | 9 | 4 | 9 | 0 | 2 | 3 | 4 | 5 |   |   |   |  |
| Lacrimal Gland          |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Lymphoma Malignant      |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Zymbal's Gland          |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Carcinoma               |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Urinary System</b>   |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Kidney                  |             | A         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Lymphoma Malignant      |             |           | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Urethra                 |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Urinary Bladder         |             | A         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| <b>SYSTEMIC LESIONS</b> |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Multiple Organ          |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Lymphoma Malignant      |             |           | X |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
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**CD Rat Male**  
**F3 OPPB**

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

**Alimentary System**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Intestine Large, Colon    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Adenoma                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Intestine Large, Rectum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 |
| Adenocarcinoma            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Lymphoma Malignant        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Small, Ileum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 |
| Intestine Small, Jejunum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 |
| Liver                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Cholangiocarcinoma        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Cholangioma               | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Hepatocellular Adenoma    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesentery                 |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   | 4  |
| Oral Mucosa               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |
| Squamous Cell Carcinoma   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |
| Pancreas                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Lymphoma Malignant        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Salivary Glands           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically



Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:03  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male**  
**F3 OPPB**

| DAY ON TEST                  | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |    |   |
|------------------------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
| ANIMAL ID                    | 7              | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |    |   |
|                              | 5              | 5 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 |    |   |
|                              | 0              | 0 | 9 | 9 | 9 | 9 | 3 | 2 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 3 | 2 | 5 |   |    |   |
|                              | 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 |    |   |
|                              | 9              | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |    |   |
|                              | 9              | 9 | 0 | 0 | 0 | 1 | 3 | 4 | 5 | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 |    |   |
|                              | 4              | 5 | 2 | 3 | 9 | 0 | 7 | 9 | 3 | 9 | 2 | 5 | 6 | 7 | 8 | 9 | 9 | 0 | 1 |    |   |
|                              | <b>*TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |
| Lymphoma Malignant           |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |   |
| Stomach, Forestomach         | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |   |
| Stomach, Glandular           | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |   |
| <b>Cardiovascular System</b> |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |
| Blood Vessel                 | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |
| Heart                        | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |
| <b>Endocrine System</b>      |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |
| Adrenal Cortex               | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |   |
| Adenoma                      |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 1  |   |
| Adrenal Medulla              | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |   |
| Pheochromocytoma Benign      |                |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   | X  | 4 |
| Pheochromocytoma Malignant   |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |   |
| Islets, Pancreatic           | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |   |
| Adenoma                      |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |   |
| Parathyroid Gland            | +              | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |   |
| Adenoma                      |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |   |
| Pituitary Gland              | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |   |
| Lymphoma Malignant           |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |   |
| Pars Distalis, Adenoma       | X              | X | X | X |   |   |   |   |   |   | X | X | X | X | X | X | X | X | X | 24 |   |
| Thyroid Gland                | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |   |
| C Cell, Carcinoma            | X              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |   |
| Lymphoma Malignant           |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:03  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male**  
**F3 OPPB**

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

**General Body System**

NONE

**Genital System**

|                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Coagulating Gland             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Epididymis                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Preputial Gland               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Squamous Cell Carcinoma       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Prostate, Dorsal/Lateral Lobe |   |   | + | + |   |   |   |   |   |   |   |   |   | + |   |   |   |   | 50 |
| Lymphoma Malignant            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Prostate, Ventral Lobe        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Rete Testes                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Seminal Vesicle               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 |
| Lymphoma Malignant            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Testes                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

**Hematopoietic System**

|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:03  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male**  
**F3 OPPB**

| DAY ON TEST                     | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |    |    |
|---------------------------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| ANIMAL ID                       | 7              | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |    |    |
|                                 | 5              | 5 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 |    |    |
|                                 | 0              | 0 | 9 | 9 | 9 | 9 | 3 | 2 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 3 | 2 | 5 |    |    |
|                                 | 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 |    |    |
|                                 | 9              | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |    |    |
|                                 | 9              | 9 | 0 | 0 | 0 | 1 | 3 | 4 | 5 | 9 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 |    |    |
|                                 | 4              | 5 | 2 | 3 | 9 | 0 | 7 | 9 | 3 | 9 | 2 | 5 | 6 | 7 | 8 | 9 | 9 | 0 |    |    |
|                                 | <b>*TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
| Lymph Node                      | +              |   | + |   |   | + |   |   | + |   |   | M |   |   | + |   | + |   | +  | 14 |
| Axillary, Lymphoma Malignant    |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |    |
| Inguinal, Lymphoma Malignant    |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |    |
| Mediastinal, Lymphoma Malignant |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |    |
| Lymph Node, Mandibular          | +              | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |    |
| Lymphoma Malignant              |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |    |
| Lymph Node, Mesenteric          | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 |    |
| Lymphoma Malignant              |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |    |
| Spleen                          | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |    |
| Lymphoma Malignant              |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |    |
| Thymus                          | +              | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | 47 |    |
| Lymphoma Malignant              |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |    |
| <b>Integumentary System</b>     |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
| Mammary Gland                   | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 42 |    |
| Fibroma                         |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |    |
| Skin                            | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |    |
| Basal Cell Adenoma              | X              |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   | 2 |    |    |
| Sarcoma                         |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |    |
| <b>Musculoskeletal System</b>   |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
| Bone, Femur                     | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |    |
| Skeletal Muscle                 |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |    |
| Lymphoma Malignant              |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |    |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
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Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
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**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:03  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male**  
**F3 OPPB**

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

**Nervous System**

|                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Brain, Cerebrum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Osteoma           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Peripheral Nerve  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Spinal Cord       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 0  |

**Respiratory System**

|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Lung               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Lymphoma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Nose               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Trachea            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

**Special Senses System**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Eye  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Lymphoma Malignant                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Retrobulbar, Squamous Cell Carcinoma,<br>Deep Invasion |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Harderian Gland  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:03

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male  
F3 OPPB

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

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Lacrimal Gland          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Zymbal's Gland          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Carcinoma               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| <b>Urinary System</b>   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Kidney                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Urethra                 | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |
| Urinary Bladder         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| <b>SYSTEMIC LESIONS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Multiple Organ          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:03

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male  
F3/2PPB TO CTL

Table with columns for DAY ON TEST (0-30) and ANIMAL ID (0-30) and rows of numerical data.

Alimentary System

Table with columns for Alimentary System (Esophagus, Intestine Large, etc.) and rows of data (+, X, A, BLANK).

\* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:04

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F3/2PPB TO CTL

Table with columns for DAY ON TEST and ANIMAL ID, and 30 columns of numerical data representing individual animal results.

Cardiovascular System

Table showing findings for the Cardiovascular System across 30 animals, including Blood Vessel, Heart, Endocardium, Schwannoma Malignant, Leukemia Mononuclear, and Squamous Cell Carcinoma.

Endocrine System

Table showing findings for the Endocrine System across 30 animals, including Adrenal Cortex, Adenoma, Leukemia Mononuclear, Adrenal Medulla, Pheochromocytoma Benign, Islets, Pancreatic, Parathyroid Gland, Pituitary Gland, and various Adenomas.

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:04

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Male<br>F3/2PPB 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 |   |   |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |             | 3 | 3 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |   |
|  |             | 1 | 4 | 3 | 2 | 8 | 9 | 1 | 2 | 3 | 3 | 4 | 5 | 6 | 6 | 6 | 7 | 7 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 5 | 4 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|  | 0           | 0 | 1 | 2 | 3 | 4 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |   |
|  | 5           | 6 | 2 | 5 | 7 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 4 | 8 | 9 | 0 | 0 | 1 | 1 | 2 | 4 | 4 | 5 | 8 | 9 | 9 | 9 |   |
|  | 6           | 3 | 8 | 7 | 4 | 1 | 6 | 2 | 3 | 6 | 1 | 6 | 3 | 4 | 5 | 1 | 3 | 9 | 6 | 3 | 2 | 4 | 7 | 8 | 1 | 6 | 7 | 6 | 8 | 6 | 7 | 7 |   |
| Thyroid Gland  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Follicular Cel, Adenoma                                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>General Body System</b>                                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| NONE   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Genital System</b>  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Coagulating Gland  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Epididymis   | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Squamous Cell Carcinoma, Metastatic,<br>Stomach, Forestomach |             |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Preputial Gland  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Carcinoma  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Squamous Cell Carcinoma                                      |             |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |
| Prostate, Dorsal/Lateral Lobe                                | +           | + |   | + |   | + |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Squamous Cell Carcinoma, Metastatic,<br>Stomach, Forestomach |             |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Prostate, Ventral Lobe                                       | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Rete Testes  | +           | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + |   |
| Seminal Vesicle  | A           | + | + | A | + | A | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |
| Testes   | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Interstit Cell, Adenoma                                      |             |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Squamous Cell Carcinoma, Metastatic,<br>Stomach, Forestomach |             |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
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Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
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P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:05  
 First Dose M/F: NA / NA  
 Lab: NCTR

| CD Rat Male<br>F3/2PPB 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 |   |   |
|-------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                               | ANIMAL ID   | 3 | 3 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |   |
|                               |             | 3 | 4 | 3 | 2 | 8 | 9 | 1 | 2 | 3 | 3 | 4 | 5 | 6 | 6 | 6 | 7 | 7 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | 5 | 5 | 4 | 5 | 4 | 4 |
|                               |             | 1 | 7 | 4 | 7 | 6 | 6 | 8 | 8 | 0 | 8 | 6 | 6 | 6 | 6 | 3 | 4 | 0 | 0 | 4 | 0 | 4 | 0 | 4 | 9 | 9 | 0 | 0 | 9 | 0 | 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 | 1 | 2 | 3 | 4 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|                               |             | 5 | 6 | 2 | 5 | 7 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 4 | 8 | 9 | 0 | 0 | 1 | 1 | 2 | 4 | 4 | 5 | 8 | 9 | 9 |
|                               |             | 6 | 3 | 8 | 7 | 4 | 1 | 6 | 2 | 3 | 6 | 1 | 6 | 3 | 4 | 5 | 1 | 3 | 9 | 6 | 3 | 2 | 4 | 7 | 8 | 1 | 6 | 7 | 6 | 8 | 6 | 7 |

Hematopoietic System

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Bone Marrow   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |  |
| Lymphoma Malignant  |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Lymph Node  |   |   | + |   |   |   |   |   |   | + |   |   |   |   |   |   |   | + |   |   | + |   |   |   |   |   |   |   |   |   |   |   |  |
| Mediastinal, Lymphoma Malignant                           |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Lymph Node, Mandibular                                    | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |  |
| Lymphoma Malignant  |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Lymph Node, Mesenteric                                    | A | + | + | A | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |  |
| Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Spleen  | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |  |
| Lymphoma Malignant  |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Thymus  | A | + | + | + | + | + | + | A | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |  |
| Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

Integumentary System

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93

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First Dose M/F: NA / NA

Lab: NCTR

Table with columns for DAY ON TEST (0-30) and ANIMAL ID (0-30). Rows include CD Rat Male and F3/2PPB TO CTL.

Integumentary System

Table listing integumentary system findings: Mammary Gland, Fibroadenoma, Fibroma, Skin, Keratoacanthoma, Lipoma.

Musculoskeletal System

Table listing musculoskeletal system findings: Bone, Cranium, Squamous Cell Carcinoma, Deep Invasion, Bone, Femur, Skeletal Muscle, Diaphragm, Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach.

Nervous System

Table listing nervous system findings: Brain, Brain Stem, Brain, Cerebellum, Brain, Cerebrum, Peripheral Nerve, Spinal Cord.

\* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

Experiment Number: 99920-93  
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| DAY ON TEST | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| 3           | 3         | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |   |
| 3           | 4         | 3 | 2 | 8 | 9 | 1 | 2 | 3 | 3 | 4 | 5 | 6 | 6 | 6 | 7 | 7 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | 5 | 5 | 4 | 5 | 4 |   |
| 1           | 7         | 4 | 7 | 6 | 6 | 8 | 8 | 0 | 8 | 6 | 3 | 0 | 6 | 6 | 3 | 4 | 0 | 0 | 4 | 0 | 4 | 9 | 9 | 0 | 0 | 9 | 0 | 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         | 1 | 2 | 3 | 4 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |   |
| 5           | 6         | 2 | 5 | 7 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 4 | 8 | 9 | 0 | 0 | 1 | 1 | 2 | 4 | 4 | 5 | 8 | 9 | 9 |
| 6           | 3         | 8 | 7 | 4 | 1 | 6 | 2 | 3 | 6 | 1 | 6 | 3 | 4 | 5 | 1 | 3 | 9 | 6 | 3 | 2 | 4 | 7 | 8 | 1 | 6 | 7 | 6 | 8 | 6 | 7 |

**Respiratory System**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung  | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Leukemia Mononuclear                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nose  | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Trachea   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

**Special Senses System**

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Eye             | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Harderian Gland | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Lacrimal Gland  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

**Urinary System**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Kidney  | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Sarcoma   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Urethra   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Urinary Bladder   | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |

**SYSTEMIC LESIONS**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

**Experiment Number:** 99920-93  
**Test Type:** SPECIAL STUDY  
**Route:** DOSED FEED  
**Species/Strain:** Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
**Test Compound:** ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
**CAS Number:** 57-63-6

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 11:56:05  
**First Dose M/F:** NA / NA  
**Lab:** NCTR

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

Leukemia Mononuclear  
 Lymphoma Malignant

X

X

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:05  
 First Dose M/F: NA / NA  
 Lab: NCTR

CD Rat Male  
 F3/2PPB TO CTL

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

Alimentary System

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 48 |
| Intestine Large, Cecum                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 43 |
| Intestine Large, Colon                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 43 |
| Intestine Large, Rectum                                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 |
| Intestine Small, Duodenum                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 43 |
| Intestine Small, Ileum                                       | + | + | A | A | + | A | + | + | + | + | A | + | + | + | + | + | + | + | 38 |
| Intestine Small, Jejunum                                     | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 41 |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Leukemia Mononuclear   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Squamous Cell Carcinoma, Metastatic,<br>Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Oral Mucosa  |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   | 8  |
| Squamous Cell Carcinoma                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4  |
| Pancreas   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Mononuclear   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Squamous Cell Carcinoma, Metastatic,<br>Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Salivary Glands  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Stomach, Forestomach   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Squamous Cell Carcinoma                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Stomach, Glandular   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:06  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male  
 F3/2PPB TO CTL**

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

**Cardiovascular System**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Heart   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Endocardium, Schwannoma Malignant                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Leukemia Mononuclear                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

**Endocrine System**

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Adenoma                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Leukemia Mononuclear    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Adrenal Medulla         | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | 48 |
| Pheochromocytoma Benign |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   | 4  |
| Islets, Pancreatic      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Adenoma                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Parathyroid Gland       | M | + | + | + | + | M | M | + | M | + | + | + | + | + | + | + | + | + | 44 |
| Adenoma                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pituitary Gland         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Mononuclear    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pars Distalis, Adenoma  |   |   | X | X |   | X | X | X |   |   | X |   |   |   | X | X | X | X | 20 |
| Pars Intermed, Adenoma  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:06  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male  
 F3/2PPB TO CTL**

| DAY ON TEST   | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | *TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
|   | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |         |
| ANIMAL ID   | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
|   | 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 |         |
|   | 7 | 8 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 9 | 4 | 5 |         |
| Thyroid Gland   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49      |
| Follicular Cel, Adenoma                                   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| <b>General Body System</b>                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| NONE  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| <b>Genital System</b>                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Coagulating Gland   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49      |
| Epididymis  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49      |
| Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Preputial Gland   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49      |
| Carcinoma   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Squamous Cell Carcinoma                                   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | 3       |
| Prostate, Dorsal/Lateral Lobe                             |   |   | + | M |   |   |   |   |   |   |   |   |   |   |   | + |   | 48      |
| Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Prostate, Ventral Lobe                                    | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | 48      |
| Rete Testes   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | 45      |
| Seminal Vesicle   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44      |
| Testes  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49      |
| Interstit Cell, Adenoma                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:06  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male  
 F3/2PPB TO CTL**

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

**Hematopoietic System**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Leukemia Mononuclear   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymph Node   |   | + |   |   | + |   |   | + | + |   |   |   | + |   | + |   |   |   |   | 16 |
| Mediastinal, Lymphoma Malignant                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymph Node, Mandibular                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Mononuclear   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymph Node, Mesenteric                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Leukemia Mononuclear   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Squamous Cell Carcinoma, Metastatic,<br>Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Spleen   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Mononuclear   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Squamous Cell Carcinoma, Metastatic,<br>Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Thymus   | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Leukemia Mononuclear   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Squamous Cell Carcinoma, Metastatic,<br>Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

**Integumentary System**

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically



Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:06  
 First Dose M/F: NA / NA  
 Lab: NCTR

CD Rat Male  
 F3/2PPB TO CTL

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

**Integumentary System**

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 42 |
| Fibroadenoma    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 2  |
| Fibroma         |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Skin            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Keratoacanthoma |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Lipoma          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |

**Musculoskeletal System**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Cranium, Squamous Cell Carcinoma, Deep Invasion                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Bone, Femur  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Skeletal Muscle  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4  |
| Diaphragm, Squamous Cell Carcinoma, Metastatic, Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

**Nervous System**

|                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Brain, Cerebrum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Peripheral Nerve  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4  |
| Spinal Cord       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 0  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:06  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male**  
**F3/2PPB TO CTL**

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

**Respiratory System**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Lung   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Mononuclear   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Squamous Cell Carcinoma, Metastatic,<br>Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Nose   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Trachea  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

**Special Senses System**

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Eye             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Lacrimal Gland  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

**Urinary System**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Mononuclear   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Sarcoma  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Squamous Cell Carcinoma, Metastatic,<br>Stomach, Forestomach |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Urethra  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Urinary Bladder  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |

**SYSTEMIC LESIONS**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:06  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male**  
**F3/2PPB TO CTL**

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

Leukemia Mononuclear  
 Lymphoma Malignant

1  
 1

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
Test Type: SPECIAL STUDY  
Route: DOSED FEED  
Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
Time Report Requested: 11:56:06  
First Dose M/F: NA / NA  
Lab: NCTR

CD Rat Male  
F3/10PPBTO 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 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
|             | 1 | 3 | 3 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|             | 9 | 0 | 8 | 2 | 3 | 6 | 6 | 8 | 5 | 7 | 7 | 8 | 0 | 9 | 2 | 2 | 2 | 2 | 3 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 4 |
|             | 8 | 2 | 9 | 4 | 9 | 5 | 8 | 2 | 6 | 4 | 4 | 6 | 9 | 9 | 1 | 0 | 4 | 3 | 7 | 9 | 9 | 0 | 9 | 8 | 8 | 0 | 9 | 9 |

Alimentary System

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum                                      | + | + | A | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Large, Colon                                      | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Large, Rectum                                     | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Anus, Sarcoma   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Small, Duodenum                                   | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum                                      | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum                                    | + | + | A | A | A | + | A | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |
| Liver   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cholangioma   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |
| Mesentery   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Squamous Cell Carcinoma, Metastatic, Uncertain Primary Site |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Oral Mucosa   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   | + |   | + |   |   |   |   |   |   |   |
| Squamous Cell Carcinoma                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pancreas  | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue  
M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
**Test Compound:** ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
**CAS Number:** 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:07

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Male<br>F3/10PPBTO CTL      | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |
|------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|---|
|                                    | 0<br>1<br>9<br>8      | 0<br>3<br>0<br>2      | 0<br>3<br>8<br>9      | 0<br>4<br>2<br>4      | 0<br>5<br>3<br>9      | 0<br>5<br>6<br>5      | 0<br>5<br>6<br>8      | 0<br>5<br>6<br>2      | 0<br>6<br>8<br>6      | 0<br>6<br>5<br>4      | 0<br>6<br>7<br>4      | 0<br>6<br>7<br>4      | 0<br>6<br>7<br>1      | 0<br>6<br>7<br>0      | 0<br>6<br>7<br>2      | 0<br>6<br>7<br>2      | 0<br>6<br>7<br>2      | 0<br>6<br>7<br>3      | 0<br>6<br>7<br>3      | 0<br>6<br>7<br>4      | 0<br>6<br>7<br>4      | 0<br>6<br>7<br>4      | 0<br>6<br>7<br>5      | 0<br>6<br>7<br>4      | 0<br>6<br>7<br>4      | 0<br>6<br>7<br>5      | 0<br>6<br>7<br>5      | 0<br>6<br>7<br>8      | 0<br>6<br>7<br>8      |   |   |
| ANIMAL ID                          | 0<br>0<br>0<br>2<br>4 | 0<br>0<br>0<br>4<br>7 | 0<br>0<br>0<br>8<br>5 | 0<br>0<br>1<br>1<br>6 | 0<br>0<br>2<br>8<br>1 | 0<br>0<br>3<br>3<br>4 | 0<br>0<br>3<br>6<br>3 | 0<br>0<br>3<br>8<br>1 | 0<br>0<br>8<br>8<br>2 | 0<br>0<br>8<br>4<br>4 | 0<br>0<br>8<br>4<br>6 | 0<br>0<br>8<br>6<br>7 | 0<br>0<br>8<br>8<br>7 | 0<br>0<br>8<br>8<br>8 | 0<br>0<br>8<br>8<br>8 | 0<br>0<br>8<br>8<br>9 | 0<br>0<br>8<br>8<br>9 | 0<br>0<br>8<br>8<br>9 | 0<br>0<br>8<br>8<br>9 | 0<br>0<br>8<br>8<br>9 | 0<br>0<br>8<br>8<br>9 | 0<br>0<br>8<br>8<br>9 | 0<br>0<br>8<br>8<br>9 | 0<br>0<br>8<br>8<br>9 | 0<br>0<br>8<br>8<br>9 | 0<br>0<br>8<br>8<br>9 | 0<br>0<br>8<br>8<br>9 | 0<br>0<br>8<br>8<br>9 | 0<br>0<br>8<br>8<br>9 |   |   |
| Salivary Glands                    | +                     | +                     | +                     | +                     | A                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + |
| Lymphoma Malignant                 |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |
| Stomach, Forestomach               | +                     | +                     | +                     | A                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + |
| Stomach, Glandular                 | +                     | +                     | +                     | A                     | A                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | A                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + |
| <b>Cardiovascular System</b>       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |
| Blood Vessel                       | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + |
| Heart                              | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + |
| <b>Endocrine System</b>            |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |
| Adrenal Cortex                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | M                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + |
| Adenoma                            |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |
| Adrenal Medulla                    | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | M                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + |
| Bilateral, Pheochromocytoma Benign |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |
| Pheochromocytoma Benign            |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       |                       | X                     |                       |                       |                       | X                     |                       | X                     |                       |                       |                       | X                     |   |   |
| Pheochromocytoma Malignant         |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |
| Islets, Pancreatic                 | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + |
| Adenoma                            |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |
| Parathyroid Gland                  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + |
| Pituitary Gland                    | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | M                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + |
| Lymphoma Malignant                 |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |
| Pars Distalis, Adenoma             |                       |                       |                       | X                     |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       | X                     | X                     | X                     | X                     | X                     |                       |                       |                       | X                     | X                     |                       |                       | X                     | X                     |                       |   |   |
| Pars Intermed, Adenoma             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |
| Thyroid Gland                      | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + |

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:07

First Dose M/F: NA / NA

Lab: NCTR

Table with columns for DAY ON TEST (0-30) and ANIMAL ID (0-30). Rows include CD Rat Male and F3/10PPBTO CTL.

C Cell, Adenoma X
C Cell, Carcinoma X
Lymphoma Malignant X

General Body System

NONE

Genital System

Table for Genital System with rows: Coagulating Gland, Epididymis, Preputial Gland, Squamous Cell Carcinoma, Prostate, Dorsal/Lateral Lobe, Prostate, Ventral Lobe, Rete Testes, Seminal Vesicle, Lymphoma Malignant, Testes.

Hematopoietic System

Table for Hematopoietic System with rows: Bone Marrow, Lymphoma Malignant, Lymph Node, Axillary, Lymphoma Malignant.

\* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue
M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:08

First Dose M/F: NA / NA

Lab: NCTR

Table with columns for DAY ON TEST (0-30), ANIMAL ID (0-30), and various organ/tissue types (Lumbar, Mediastinal, Renal, Lymph Node, Spleen, Thymus, Mammary Gland, Skin, etc.) with corresponding numerical values and symbols (+, X, M, A).

\* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue
M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:08

First Dose M/F: NA / NA

Lab: NCTR

Table with columns for DAY ON TEST (0-30) and ANIMAL ID (0-30). Rows include CD Rat Male and F3/10PPBTO CTL.

Table with columns for tissue types: Skeletal Muscle, Nervous System, Respiratory System, and Special Senses System. Rows include Brain, Lung, Nose, Trachea, Ear, etc.

\* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue
M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically



Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:08

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male  
F3/10PPBTO 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 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 1 | 3 | 3 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|             | 9 | 0 | 8 | 2 | 3 | 6 | 6 | 8 | 5 | 7 | 7 | 8 | 0 | 9 | 2 | 2 | 2 | 2 | 3 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 4 |
|             | 8 | 2 | 9 | 4 | 9 | 5 | 8 | 2 | 6 | 4 | 4 | 6 | 9 | 9 | 1 | 0 | 4 | 3 | 7 | 9 | 9 | 0 | 9 | 8 | 8 | 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 | 0 | 0 | 0 | 0 | 0 | 0 |
|             | 0 | 0 | 0 | 1 | 2 | 3 | 3 | 3 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|             | 2 | 4 | 8 | 1 | 8 | 3 | 3 | 6 | 3 | 4 | 4 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 1 | 1 | 1 | 4 | 4 | 5 | 5 | 8 | 8 | 8 |
|             | 4 | 7 | 5 | 6 | 1 | 1 | 4 | 8 | 1 | 2 | 6 | 0 | 7 | 9 | 7 | 8 | 6 | 7 | 7 | 3 | 4 | 5 | 5 | 8 | 7 | 8 | 5 | 6 | 7 |

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Squamous Cell Papilloma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Eye                     | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant      |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Harderian Gland         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant      |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lacrimal Gland          |   |   |   |   |   |   |   |   |   |   |   | + |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant      |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Zymbal's Gland          |   |   |   |   |   |   |   | + |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Carcinoma               |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Squamous Cell Carcinoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Urinary System</b>   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Kidney                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant      |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Urethra                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Urinary Bladder         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| <b>SYSTEMIC LESIONS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Multiple Organ          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant      |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:08  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male  
 F3/10PPBTO CTL**

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

**Alimentary System**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Lymphoma Malignant   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Large, Colon   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Adenoma  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Large, Rectum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Anus, Sarcoma  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Small, Duodenum                                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Intestine Small, Ileum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Intestine Small, Jejunum                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cholangioma  |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   | 1  |
| Leukemia Mononuclear   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | 1  |
| Lymphoma Malignant   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesentery  |   | + |   |   | + |   |   |   | + | + |   |   |   |   |   |   | + |   | 6  |
| Squamous Cell Carcinoma, Metastatic,<br>Uncertain Primary Site |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 1  |
| Oral Mucosa  |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4  |
| Squamous Cell Carcinoma  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pancreas   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:08  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male  
 F3/10PPBTO CTL**

| DAY ON TEST                        | 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 | 7 | 7 | 7 | 7 | 7 | 7 |    |
|                                    | 5              | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |    |
|                                    | 3              | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 4 | 4 | 4 |    |
| ANIMAL ID                          | 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 |    |
|                                    | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |    |
|                                    | 3              | 3 | 3 | 3 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 1 |    |
|                                    | 0              | 5 | 6 | 9 | 1 | 2 | 3 | 4 | 5 | 8 | 0 | 7 | 8 | 0 | 1 | 0 | 1 | 7 |    |
|                                    | <b>*TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Salivary Glands                    | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant                 |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Stomach, Forestomach               | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Stomach, Glandular                 | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| <b>Cardiovascular System</b>       |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Blood Vessel                       | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart                              | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| <b>Endocrine System</b>            |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Adrenal Cortex                     | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Adenoma                            |                | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Adrenal Medulla                    | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Bilateral, Pheochromocytoma Benign |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pheochromocytoma Benign            |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5  |
| Pheochromocytoma Malignant         |                |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | 2  |
| Islets, Pancreatic                 | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma                            |                |   |   | X |   |   | X |   |   |   |   |   |   |   |   |   |   |   | 3  |
| Parathyroid Gland                  | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pituitary Gland                    | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant                 |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pars Distalis, Adenoma             |                |   | X |   | X |   | X | X |   |   |   |   | X |   | X |   | X |   | 18 |
| Pars Intermed, Adenoma             |                |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   | 1  |
| Thyroid Gland                      | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:09  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male  
 F3/10PPBTO CTL**

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

|                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| C Cell, Adenoma               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |    |
| C Cell, Carcinoma             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |    |
| Lymphoma Malignant            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |    |
| <b>General Body System</b>    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
| NONE                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
| <b>Genital System</b>         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
| Coagulating Gland             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 48 |
| Epididymis                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50 |
| Preputial Gland               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50 |
| Squamous Cell Carcinoma       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4  |    |
| Prostate, Dorsal/Lateral Lobe |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |    |
| Prostate, Ventral Lobe        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50 |
| Rete Testes                   | + | + | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | M | +  | 43 |
| Seminal Vesicle               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 47 |
| Lymphoma Malignant            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |    |
| Testes                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50 |
| <b>Hematopoietic System</b>   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
| Bone Marrow                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50 |
| Lymphoma Malignant            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |    |
| Lymph Node                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 13 |    |
| Axillary, Lymphoma Malignant  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |    |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:09  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male  
 F3/10PPBTO CTL**

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

**\*TOTALS**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Lumbar, Lymphoma Malignant                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mediastinal, Lymphoma Malignant           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Renal, Lymphoma Malignant                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymph Node, Mandibular Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymph Node, Mesenteric Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Spleen Lymphoma Malignant                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Leukemia Mononuclear Lymphoma Malignant   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Thymus Lymphoma Malignant                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| <b>Integumentary System</b>               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Mammary Gland                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 40 |
| Skin Basal Cell Adenoma                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skin Fibroma                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Skin Keratoacanthoma                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Schwannoma Malignant                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |
| <b>Musculoskeletal System</b>             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Bone                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Bone, Femur                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:09  
 First Dose M/F: NA / NA  
 Lab: NCTR

| CD Rat Male<br>F3/10PPBTO CTL                               | DAY ON TEST | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |    |
|---|-------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
|   | ANIMAL ID   | 7              | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |    |
|   |             | 5              | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |    |
|   |             | 3              | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 4 | 4 | 4 |    |
|   |             | 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 |    |
|   |             | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |    |
|   |             | 3              | 3 | 3 | 3 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 1 |    |
|   |             | 0              | 5 | 6 | 9 | 1 | 2 | 3 | 4 | 5 | 8 | 0 | 7 | 8 | 0 | 1 | 0 | 1 | 7 |    |
|   |             | <b>*TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Skeletal Muscle   |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |
| <b>Nervous System</b>                                       |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Brain, Brain Stem   |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Brain, Cerebellum   |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Granular Cell Tumor Malignant                               |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | 1  |
| Brain, Cerebrum   |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Granular Cell Tumor Malignant                               |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Peripheral Nerve  |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Spinal Cord   |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 0  |
| <b>Respiratory System</b>                                   |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Lung  |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Alveolar/Bronchiolar Adenoma                                |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Leukemia Mononuclear  |             |                |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | 1  |
| Lymphoma Malignant  |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Schwannoma Malignant, Metastatic, Skin                      |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Squamous Cell Carcinoma, Metastatic, Uncertain Primary Site |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 1  |
| Nose  |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Trachea   |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| <b>Special Senses System</b>                                |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Ear   |             | +              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:09

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male  
F3/10PPBTO CTL

| DAY ON TEST             | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | *TOTALS |
|-------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
|                         | 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 | 7 | 7 | 7 | 7 | 7 | 7 | 7       |
|                         | 5         | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5       |
|                         | 3         | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4       |
|                         | 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       |
|                         | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1       |
|                         | 3         | 3 | 3 | 3 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1       |
|                         | 0         | 5 | 6 | 9 | 1 | 2 | 3 | 4 | 5 | 8 | 0 | 7 | 8 | 0 | 1 | 0 | 1 | 7 | 8       |
| Squamous Cell Papilloma | X         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Eye                     | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +       |
| Lymphoma Malignant      |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Harderian Gland         | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +       |
| Lymphoma Malignant      |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Lacrimal Gland          |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Lymphoma Malignant      |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Zymbal's Gland          |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Carcinoma               |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Squamous Cell Carcinoma |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| <b>Urinary System</b>   |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Kidney                  | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +       |
| Lymphoma Malignant      |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Urethra                 |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Urinary Bladder         | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +       |
| <b>SYSTEMIC LESIONS</b> |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Multiple Organ          | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +       |
| Leukemia Mononuclear    |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Lymphoma Malignant      |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:09

First Dose M/F: NA / NA

Lab: NCTR

Table with columns for DAY ON TEST and ANIMAL ID, and rows for CD Rat Male and F3/50PPBTO CTL. The table contains numerical data for each animal across different days.

Alimentary System

Table detailing the Alimentary System examination results for various organs (Esophagus, Intestine, Liver, etc.) across multiple animals, using symbols like +, A, X, M to denote findings.

Cardiovascular System

Table detailing the Cardiovascular System examination results for Blood Vessel and Heart across multiple animals, using symbols like +.

Endocrine System

\* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically



**Experiment Number:** 99920-93  
**Test Type:** SPECIAL STUDY  
**Route:** DOSED FEED  
**Species/Strain:** Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
**Test Compound:** ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
**CAS Number:** 57-63-6

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 11:56:10  
**First Dose M/F:** NA / NA  
**Lab:** NCTR

| CD Rat Male<br>F3/50PPBTO CTL                 | DAY ON TEST | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|   |             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|   |             | 0         | 0 | 0 | 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 |   |
|   |             | 9         | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |   |
| Adrenal Cortex                                |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Adrenal Medulla                               |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Pheochromocytoma Benign                       |             |           |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pheochromocytoma Malignant                    |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |
| Islets, Pancreatic                            |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Adenoma                                       |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |
| Parathyroid Gland                             |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M | + | + | M | + | + | + |   |
| Pituitary Gland                               |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Pars Distalis, Adenoma                        |             |           |   |   | X |   | X | X | X | X |   | X |   | X |   | X | X | X | X | X | X | X | X | X |   | X | X | X |   |
| Thyroid Gland                                 |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| C Cell, Carcinoma                             |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |
| <b>General Body System</b>                    |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Tissue NOS                                    |             |           |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Sarcoma                                       |             |           |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Genital System</b>                         |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Coagulating Gland                             |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Carcinoma, Metastatic, Uncertain Primary Site |             |           |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Schwannoma Malignant                          |             |           |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Ductus Deferens                               |             |           |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Epididymis                                    |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Penis   |             |           |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:10  
 First Dose M/F: NA / NA  
 Lab: NCTR

| CD Rat Male<br>F3/50PPBTO 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 | 1 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |  |
|                               | ANIMAL ID   | 1 | 3 | 0 | 5 | 6 | 0 | 2 | 5 | 5 | 7 | 0 | 0 | 0 | 1 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 4 | 4 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|                               | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 3 | 3 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |   |  |
|                               | 1           | 1 | 1 | 1 | 3 | 0 | 1 | 2 | 2 | 4 | 6 | 7 | 7 | 8 | 0 | 1 | 2 | 5 | 5 | 6 | 6 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |   |  |
|                               | 4           | 9 | 9 | 1 | 2 | 5 | 1 | 4 | 5 | 4 | 9 | 6 | 8 | 1 | 6 | 6 | 2 | 1 | 9 | 0 | 1 | 2 | 9 | 1 | 2 | 8 | 9 | 9 | 9 | 9 | 9 |   |  |
| Preputial Gland               | M           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Carcinoma                     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Squamous Cell Carcinoma       |             |   |   |   |   |   |   | X | X | X | X | X | X | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |  |
| Prostate, Dorsal/Lateral Lobe | +           | + |   | + | + |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Schwannoma Malignant          |             |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Prostate, Ventral Lobe        | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Schwannoma Malignant          |             |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Rete Testes                   | +           | + | + | + | + | + | + | + | + | + | + | + | + | M | M | + | + | + | + | + | + | + | + | M | + | + | + | M | M | + | + | + |  |
| Seminal Vesicle               | +           | A | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Testes                        | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Interstitial Cell, Adenoma    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Hematopoietic System</b>   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Bone Marrow                   | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Lymph Node                    | +           |   |   | A | + |   | + |   | + | + | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Lymph Node, Mandibular        | +           | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Lymph Node, Mesenteric        | +           | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Spleen                        | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Sarcoma                       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Thymus                        | +           | + | + | M | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| <b>Integumentary System</b>   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Mammary Gland                 | +           | A | + | + | + | M | + | M | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Adenocarcinoma                |             |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:10

First Dose M/F: NA / NA

Lab: NCTR

Table with columns for DAY ON TEST, ANIMAL ID, and various lesion types (Adenoma, Fibroadenoma, Skin, Carcinoma, Fibroma, Keratoacanthoma, Lipoma, Sarcoma, Musculoskeletal System, Nervous System, Respiratory System) across 30 animals.

\* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:10

First Dose M/F: NA / NA

Lab: NCTR

Table with columns for DAY ON TEST, ANIMAL ID, and various lesion types (e.g., Thymoma Malignant, Osteosarcoma, Trachea, Special Senses System, Urinary System, SYSTEMIC LESIONS). Includes numerical counts and symbols (+, X, M, A, BLANK).

\* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:10  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male**  
**F3/50PPBTO CTL**

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

**Alimentary System**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Intestine Large, Colon    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Intestine Large, Rectum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Intestine Small, Ileum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Intestine Small, Jejunum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Liver                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Hepatocellular Adenoma    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesentery                 |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   | 3  |
| Oral Mucosa               |   |   |   |   |   |   |   |   |   |   | + | + |   |   |   |   |   |   |   | 6  |
| Squamous Cell Carcinoma   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   | 5  |
| Pancreas                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Salivary Glands           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Stomach, Forestomach      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Stomach, Glandular        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |

**Cardiovascular System**

|              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

**Endocrine System**

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:11  
 First Dose M/F: NA / NA  
 Lab: NCTR

| CD Rat Male<br>F3/50PPBTO CTL                 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | *TOTALS |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
|   | ANIMAL ID   | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |         |
|   |             | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |         |
|   |             | 9 | 9 | 9 | 9 | 9 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 4 | 4 | 5 | 4 | 4 |         |
|   |             | 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 |         |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |         |
|   |             | 0 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 6 | 1 | 1 | 1 |         |
|   |             | 6 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 0 | 1 | 2 | 5 | 6 | 9 | 0 | 2 | 3 |         |
| Adrenal Cortex                                |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Adrenal Medulla                               |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Pheochromocytoma Benign                       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Pheochromocytoma Malignant                    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Islets, Pancreatic                            |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Adenoma                                       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Parathyroid Gland                             |             | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46      |
| Pituitary Gland                               |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Pars Distalis, Adenoma                        |             |   |   |   |   |   | X | X | X |   | X |   | X |   |   | X |   |   |   | 26      |
| Thyroid Gland                                 |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| C Cell, Carcinoma                             |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| <b>General Body System</b>                    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Tissue NOS                                    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Sarcoma                                       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| <b>Genital System</b>                         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Coagulating Gland                             |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Carcinoma, Metastatic, Uncertain Primary Site |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Schwannoma Malignant                          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Ductus Deferens                               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Epididymis                                    |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Penis   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:11  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male  
 F3/50PPBTO CTL**

| DAY ON TEST                   | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | *TOTALS |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
|                               | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |         |
| ANIMAL ID                     | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
|                               | 9 | 9 | 9 | 9 | 9 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 4 | 4 | 5 | 6 | 1 | 1 |         |
|                               | 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 |         |
|                               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |         |
|                               | 0 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 6 | 1 | 1 | 1 |         |
|                               | 6 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 0 | 1 | 2 | 5 | 6 | 9 | 0 | 2 | 3 | 4 |         |
| Preputial Gland               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |         |
| Carcinoma                     |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Squamous Cell Carcinoma       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Prostate, Dorsal/Lateral Lobe |   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |         |
| Schwannoma Malignant          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Prostate, Ventral Lobe        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |         |
| Schwannoma Malignant          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Rete Testes                   | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |         |
| Seminal Vesicle               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |         |
| Testes                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |         |
| Interstitial Cell, Adenoma    |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |         |
| <b>Hematopoietic System</b>   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Bone Marrow                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |         |
| Lymph Node                    |   |   |   |   |   |   |   |   |   | + |   |   | + |   | + |   |   |   |   |         |
| Lymph Node, Mandibular        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |         |
| Lymph Node, Mesenteric        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |         |
| Spleen                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |         |
| Sarcoma                       |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |         |
| Thymus                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |         |
| <b>Integumentary System</b>   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Mammary Gland                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |         |
| Adenocarcinoma                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:11

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male  
F3/50PPBTO CTL

| DAY ON TEST                          | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |    |
|--------------------------------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| ANIMAL ID                            | 7              | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |    |
|                                      | 4              | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |    |
|                                      | 9              | 9 | 9 | 9 | 9 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 4 | 4 | 5 | 4 | 4 | 4 |    |
|                                      | 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 |    |
|                                      | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |    |
|                                      | 0              | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 6 | 1 | 1 | 1 |    |
|                                      | 6              | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 0 | 1 | 2 | 5 | 6 | 9 | 0 | 2 | 3 | 4 |    |
|                                      | <b>*TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Adenoma                              |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Fibroadenoma                         |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Skin                                 | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Carcinoma                            |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Fibroma                              |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Keratoacanthoma                      |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lipoma                               |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Sarcoma                              |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| <b>Musculoskeletal System</b>        |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Bone, Femur                          | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| <b>Nervous System</b>                |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Brain                                |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Cranial Nerve, Schwannoma Malignant  |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Brain, Brain Stem                    | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Reticulosis Malignant                |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Brain, Cerebellum                    | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Brain, Cerebrum                      | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Meninges, Granular Cell Tumor Benign |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| <b>Respiratory System</b>            |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Lung                                 | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically



Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:11  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Male  
 F3/50PPBTO CTL**

| DAY ON TEST   | 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 | 7 | 7 | 7 | 7 | 7 | 7 | 7  |   |
|   | 4                                       | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5  |   |
|   | 9                                       | 9 | 9 | 9 | 9 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 4 | 4 | 5 | 4 | 4 | 4  |   |
| ANIMAL ID   | 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  |   |
|   | 0                                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1  |   |
|   | 0                                       | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 6 | 1 | 1 | 1  |   |
|   | 6                                       | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 3 | 4 | 0 | 1 | 2 | 5 | 6 | 9 | 0 | 2 | 3  | 4 |
|   | <b>*TOTALS</b>                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |
| Thymoma Malignant, Metastatic, Uncertain Primary Site |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |   |
| Nose  | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |   |
| Osteosarcoma  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |   |
| Trachea   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |   |
| <b>Special Senses System</b>                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |
| Ear   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | +  | 1 |
| Neural Crest Tumor                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X  | 1 |
| Eye   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |   |
| Iris, Melanoma Benign                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X  | 1 |
| Harderian Gland                                       | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |   |
| Lacrimal Gland  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |   |
| <b>Urinary System</b>                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |
| Kidney  | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |   |
| Liposarcoma   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |   |
| Urinary Bladder                                       | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |   |
| <b>SYSTEMIC LESIONS</b>                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |
| Multiple Organ  | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |   |

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

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
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Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
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P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:11  
 First Dose M/F: NA / NA  
 Lab: NCTR

| CD Rat Female<br>F3 OPPB | DAY ON TEST | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                          |             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                          |             | 0         | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|                          |             | 4         | 7 | 0 | 1 | 4 | 7 | 7 | 0 | 0 | 4 | 4 | 5 | 5 | 5 | 7 | 8 | 8 | 9 | 0 | 0 | 2 | 2 | 2 | 4 | 4 | 4 | 5 | 5 |
|                          |             | 7         | 4 | 4 | 8 | 8 | 1 | 5 | 9 | 2 | 3 | 4 | 1 | 1 | 1 | 6 | 6 | 1 | 0 | 0 | 2 | 8 | 6 | 2 | 6 | 1 | 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         | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 5 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 |
|                          |             | 0         | 7 | 1 | 4 | 9 | 3 | 4 | 6 | 5 | 5 | 1 | 1 | 2 | 2 | 2 | 3 | 4 | 5 | 6 | 7 | 7 | 9 | 9 | 0 | 2 | 3 | 4 | 6 |
|                          |             | 6         | 4 | 4 | 2 | 8 | 7 | 6 | 7 | 1 | 3 | 8 | 9 | 2 | 3 | 7 | 8 | 9 | 7 | 2 | 1 | 2 | 5 | 2 | 8 | 1 | 3 | 9 | 5 |

**Alimentary System**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum                   | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum                  | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma                                  |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Small, Duodenum                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum                 | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenocarcinoma, Metastatic, Uterus       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cholangiocarcinoma                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hepatocellular Adenoma                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nephroblastoma, Metastatic, Kidney       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mesentery                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adenocarcinoma, Metastatic, Uterus       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nephroblastoma, Metastatic, Kidney       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Oral Mucosa                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Squamous Cell Carcinoma                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pancreas                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenocarcinoma, Metastatic, Uterus       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:12

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female<br>F3 OPPB           | DAY ON TEST | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------------|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                    |             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |
|                                    |             | 0         | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |   |
|                                    |             | 4         | 7 | 0 | 1 | 4 | 7 | 7 | 7 | 0 | 0 | 4 | 4 | 5 | 5 | 5 | 5 | 7 | 8 | 8 | 9 | 0 | 0 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 5 | 5 |
|                                    |             | 7         | 4 | 4 | 8 | 8 | 1 | 5 | 9 | 2 | 3 | 4 | 1 | 1 | 1 | 6 | 6 | 1 | 0 | 0 | 2 | 8 | 6 | 2 | 6 | 1 | 9 | 9 | 9 | 0 | 0 |   |
| Salivary Glands                    |             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| Stomach, Forestomach               |             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| Adenocarcinoma, Metastatic, Uterus |             | 0         | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 5 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 |   |
| Squamous Cell Papilloma            |             | 0         | 7 | 1 | 4 | 9 | 3 | 4 | 6 | 5 | 5 | 1 | 1 | 2 | 2 | 2 | 3 | 4 | 5 | 6 | 7 | 7 | 9 | 9 | 0 | 2 | 2 | 3 | 4 | 6 | 6 |   |
| Stomach, Glandular                 |             | 6         | 4 | 4 | 2 | 2 | 8 | 7 | 6 | 7 | 1 | 3 | 8 | 9 | 2 | 3 | 7 | 8 | 9 | 2 | 1 | 2 | 2 | 8 | 6 | 2 | 2 | 3 | 3 | 5 | 5 |   |
| Leiomyosarcoma                     |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Cardiovascular System</b>       |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Blood Vessel                       |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Heart                              |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| <b>Endocrine System</b>            |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adrenal Cortex                     |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Adenoma                            |             |           |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adrenal Medulla                    |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Islets, Pancreatic                 |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Adenoma                            |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Parathyroid Gland                  |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | M | M | + | + |
| Pituitary Gland                    |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pars Distalis, Adenoma             |             |           |   |   |   | X | X |   |   | X | X |   | X |   | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |   |
| Thyroid Gland                      |             | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| C Cell, Adenoma                    |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| C Cell, Carcinoma                  |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:12  
 First Dose M/F: NA / NA  
 Lab: NCTR

| CD Rat Female<br>F3 OPPB | DAY ON TEST | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                          |             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |
|                          |             | 0         | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |   |   |
|                          |             | 4         | 7 | 0 | 1 | 4 | 7 | 7 | 0 | 0 | 4 | 4 | 5 | 5 | 5 | 7 | 8 | 8 | 9 | 0 | 0 | 2 | 2 | 2 | 4 | 4 | 4 | 5 | 5 |   |   |   |
|                          |             | 7         | 4 | 4 | 8 | 8 | 1 | 5 | 9 | 2 | 3 | 4 | 1 | 1 | 1 | 6 | 6 | 1 | 0 | 0 | 2 | 8 | 6 | 2 | 6 | 1 | 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         | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 5 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 |   |   |   |
|                          |             | 0         | 7 | 1 | 4 | 9 | 3 | 4 | 6 | 5 | 5 | 1 | 1 | 2 | 2 | 2 | 3 | 4 | 5 | 6 | 7 | 7 | 9 | 9 | 0 | 2 | 2 | 3 | 4 | 6 | 6 |   |
|                          |             | 6         | 4 | 4 | 2 | 8 | 7 | 6 | 7 | 1 | 3 | 8 | 9 | 2 | 3 | 7 | 8 | 9 | 7 | 2 | 1 | 2 | 5 | 2 | 8 | 1 | 3 | 9 | 0 | 2 | 3 | 5 |

**General Body System**

NONE

**Genital System**

|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland                     | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |
| Ovary                              | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |
| Oviduct                            | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Uterus                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Endometrium, Adenocarcinoma        |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |
| Endometrium, Adenoma               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |
| Nephroblastoma, Metastatic, Kidney |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Polyp Stromal                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Vagina                             | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Nephroblastoma, Metastatic, Kidney |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**Hematopoietic System**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Schwannoma Malignant, Metastatic, Skin |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Lymph Node                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mandibular                 | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Lymph Node, Mesenteric                 | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Nephroblastoma, Metastatic, Kidney     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Spleen                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
**Test Compound:** ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
**CAS Number:** 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:12

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female<br>F3 OPPB                      | DAY ON TEST | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|   |             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Leukemia Mononuclear                          |             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Thymus  |             | 4         | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| <b>Integumentary System</b>                   |             | 4         | 7 | 0 | 1 | 4 | 7 | 7 | 0 | 0 | 4 | 4 | 5 | 5 | 5 | 5 | 7 | 8 | 8 | 9 | 0 | 0 | 2 | 2 | 2 | 4 | 4 | 4 | 5 |
| Mammary Gland                                 |             | 7         | 4 | 4 | 8 | 8 | 1 | 5 | 9 | 2 | 3 | 4 | 1 | 1 | 1 | 6 | 6 | 1 | 0 | 0 | 2 | 8 | 6 | 2 | 6 | 1 | 9 | 9 | 0 |
| Adenocarcinoma                                |             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fibroadenoma                                  |             | 0         | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 5 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 |
| Fibroadenoma, Multiple                        |             | 0         | 7 | 1 | 4 | 9 | 3 | 4 | 6 | 5 | 5 | 1 | 2 | 2 | 2 | 2 | 3 | 4 | 5 | 6 | 7 | 7 | 9 | 9 | 0 | 2 | 2 | 3 | 4 |
| Skin  |             | 6         | 4 | 4 | 2 | 8 | 7 | 6 | 7 | 1 | 3 | 8 | 9 | 2 | 3 | 7 | 8 | 9 | 7 | 2 | 1 | 2 | 5 | 2 | 8 | 1 | 3 | 9 | 0 |
| Lipoma  |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Sarcoma                                       |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Schwannoma Malignant                          |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Musculoskeletal System</b>                 |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bone, Femur                                   |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Skeletal Muscle                               |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Diaphragm, Adenocarcinoma, Metastatic, Uterus |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Diaphragm, Nephroblastoma, Metastatic, Kidney |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Nervous System</b>                         |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Brain, Brain Stem                             |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Brain, Cerebellum                             |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Brain, Cerebrum                               |             |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:12  
 First Dose M/F: NA / NA  
 Lab: NCTR

| CD Rat Female<br>F3 OPPB | DAY ON TEST | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                          |             | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                          |             | 0         | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|                          |             | 4         | 7 | 0 | 1 | 4 | 7 | 7 | 0 | 0 | 4 | 4 | 5 | 5 | 5 | 5 | 7 | 8 | 8 | 9 | 0 | 0 | 2 | 2 | 2 | 4 | 4 | 4 | 5 |
|                          |             | 7         | 4 | 4 | 8 | 8 | 1 | 5 | 9 | 2 | 3 | 4 | 1 | 1 | 1 | 6 | 6 | 1 | 0 | 0 | 2 | 8 | 6 | 2 | 6 | 1 | 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         | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 5 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 |
|                          |             | 0         | 7 | 1 | 4 | 9 | 3 | 4 | 6 | 5 | 5 | 1 | 1 | 2 | 2 | 2 | 3 | 4 | 5 | 6 | 7 | 7 | 9 | 9 | 0 | 2 | 2 | 3 | 4 |
|                          |             | 6         | 4 | 4 | 2 | 8 | 7 | 6 | 7 | 1 | 3 | 8 | 9 | 2 | 3 | 7 | 8 | 9 | 2 | 2 | 1 | 2 | 5 | 2 | 8 | 1 | 3 | 9 | 5 |

**Respiratory System**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Alveolar/Bronchiolar Adenoma         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Carcinoma, Metastatic, Thyroid Gland |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nose                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Trachea                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

**Special Senses System**

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

**Urinary System**

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Lipoma          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nephroblastoma  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

**SYSTEMIC LESIONS**

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Multiple Organ       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:12  
 First Dose M/F: NA / NA  
 Lab: NCTR

CD Rat Female  
 F3 OPPB

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

Alimentary System

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |
| Intestine Large, Cecum                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 51 |
| Intestine Large, Colon                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |
| Intestine Large, Rectum                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 51 |
| Adenoma                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Small, Duodenum                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |
| Intestine Small, Ileum                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |
| Intestine Small, Jejunum                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 51 |
| Liver                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |
| Adenocarcinoma, Metastatic, Uterus       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Cholangiocarcinoma                       |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Hepatocellular Adenoma                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | 2  |
| Leukemia Mononuclear, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Nephroblastoma, Metastatic, Kidney       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesentery                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + | 3  |
| Adenocarcinoma, Metastatic, Uterus       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Nephroblastoma, Metastatic, Kidney       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Oral Mucosa                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Squamous Cell Carcinoma                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Pancreas                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |
| Adenocarcinoma, Metastatic, Uterus       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:13  
 First Dose M/F: NA / NA  
 Lab: NCTR

| CD Rat Female<br>F3 OPPB           | DAY ON TEST | ANIMAL ID |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | *TOTALS |
|------------------------------------|-------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------|
|                                    |             | 0750      | 0754 | 0755 | 0755 | 0755 | 0755 | 0754 | 0754 | 0754 | 0754 | 0755 | 0755 | 0755 | 0755 | 0755 | 0755 | 0754 | 0755 | 0755 | 0753 |         |
|                                    |             | 0         | 0    | 0    | 0    | 0    | 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    |         |
|                                    |             | 9         | 9    | 9    | 9    | 9    | 9    | 9    | 9    | 9    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    |         |
|                                    |             | 6         | 6    | 7    | 7    | 7    | 7    | 7    | 7    | 8    | 2    | 2    | 8    | 8    | 8    | 9    | 2    | 2    | 2    | 3    | 3    |         |
|                                    |             | 6         | 7    | 0    | 1    | 2    | 7    | 8    | 9    | 3    | 6    | 7    | 1    | 2    | 5    | 6    | 2    | 3    | 7    | 0    | 1    |         |
| Salivary Glands                    |             | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 52      |
| Stomach, Forestomach               |             | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 52      |
| Adenocarcinoma, Metastatic, Uterus |             |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1       |
| Squamous Cell Papilloma            |             |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1       |
| Stomach, Glandular                 |             | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 52      |
| Leiomyosarcoma                     |             |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1       |
| <b>Cardiovascular System</b>       |             |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |         |
| Blood Vessel                       |             | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 52      |
| Heart                              |             | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 52      |
| <b>Endocrine System</b>            |             |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |         |
| Adrenal Cortex                     |             | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 52      |
| Adenoma                            |             |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2       |
| Adrenal Medulla                    |             | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 52      |
| Islets, Pancreatic                 |             | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 52      |
| Adenoma                            |             |           |      |      |      |      |      |      |      |      | X    |      |      |      |      |      |      |      |      |      |      | 1       |
| Parathyroid Gland                  |             | M         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 48      |
| Pituitary Gland                    |             | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 52      |
| Pars Distalis, Adenoma             |             | X         |      | X    | X    |      | X    |      | X    |      | X    | X    | X    | X    | X    | X    |      | X    |      | X    |      | 32      |
| Thyroid Gland                      |             | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 52      |
| C Cell, Adenoma                    |             |           |      |      |      |      |      |      |      |      |      |      |      | X    |      |      |      |      |      |      |      | 1       |
| C Cell, Carcinoma                  |             |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1       |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically



Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:13  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female**  
**F3 OPPB**

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

**General Body System**

NONE

**Genital System**

|                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Clitoral Gland                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Ovary                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 51 |
| Oviduct                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 51 |
| Uterus                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |
| Endometrium, Adenocarcinoma        |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   | X | 4  |
| Endometrium, Adenoma               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Nephroblastoma, Metastatic, Kidney |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Polyp Stromal                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Vagina                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 51 |
| Nephroblastoma, Metastatic, Kidney |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

**Hematopoietic System**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |
| Schwannoma Malignant, Metastatic, Skin |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymph Node                             | + |   |   |   |   |   |   |   |   |   |   |   | + |   | + |   |   |   |   |   | 10 |
| Lymph Node, Mandibular                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 51 |
| Lymph Node, Mesenteric                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 51 |
| Nephroblastoma, Metastatic, Kidney     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Spleen                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:13

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female  
F3 OPPB

| DAY ON TEST                                   | 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 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |         |
|   | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |         |
|   | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 9 | 9 | 9 | 9 | 4 | 4 | 4 | 3 | 5 | 5 | 4 | 5 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |         |
|   | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |         |
|   | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 8 | 2 | 2 | 8 | 8 | 8 | 9 | 2 | 2 | 2 | 3 | 3 | 3 |         |
|   | 6 | 7 | 0 | 1 | 2 | 7 | 8 | 9 | 3 | 6 | 7 | 1 | 2 | 5 | 6 | 2 | 3 | 7 | 0 | 1 | 5       |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | *TOTALS |
| Leukemia Mononuclear                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Thymus  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| <b>Integumentary System</b>                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Mammary Gland                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52      |
| Adenocarcinoma                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6       |
| Fibroadenoma                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 17      |
| Fibroadenoma, Multiple                        | X |   |   | X | X |   |   |   | X | X |   | X | X | X | X |   |   | X |   |   | 19      |
| Skin  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52      |
| Lipoma  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Sarcoma                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Schwannoma Malignant                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| <b>Musculoskeletal System</b>                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Bone, Femur                                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52      |
| Skeletal Muscle                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3       |
| Diaphragm, Adenocarcinoma, Metastatic, Uterus |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Diaphragm, Nephroblastoma, Metastatic, Kidney |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| <b>Nervous System</b>                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Brain, Brain Stem                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52      |
| Brain, Cerebellum                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 51      |
| Brain, Cerebrum                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52      |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:13  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3 OPPB**

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

**Respiratory System**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Lung                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |
| Alveolar/Bronchiolar Adenoma         |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Carcinoma, Metastatic, Thyroid Gland |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Nose                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |
| Trachea                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |

**Special Senses System**

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Eye             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |

**Urinary System**

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |
| Lipoma          |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Nephroblastoma  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |

**SYSTEMIC LESIONS**

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Multiple Organ       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 52 |
| Leukemia Mononuclear |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:13

First Dose M/F: NA / NA

Lab: NCTR

| DAY ON TEST           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <b>CD Rat Female</b>  | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| <b>F3/2PPB TO CTL</b> | 1 | 9 | 2 | 4 | 4 | 5 | 9 | 0 | 9 | 2 | 2 | 7 | 8 | 8 | 9 | 0 | 0 | 1 | 2 | 2 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 4 |   |
| <b>ANIMAL ID</b>      | 8 | 5 | 2 | 1 | 8 | 7 | 7 | 9 | 9 | 4 | 1 | 3 | 0 | 3 | 6 | 0 | 8 | 8 | 2 | 6 | 6 | 9 | 9 | 9 | 9 | 9 | 9 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 2 | 2 | 2 | 2 | 3 | 3 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|                       | 0 | 0 | 4 | 8 | 9 | 1 | 9 | 0 | 0 | 0 | 1 | 4 | 5 | 5 | 6 | 6 | 7 | 8 | 8 | 9 | 0 | 2 | 3 | 3 | 3 | 3 | 4 | 6 | 7 | 7 | 8 |
|                       | 8 | 5 | 9 | 4 | 9 | 2 | 9 | 6 | 3 | 8 | 0 | 4 | 7 | 4 | 8 | 3 | 5 | 9 | 9 | 3 | 8 | 1 | 2 | 4 | 5 | 3 | 8 | 3 | 4 | 0 |   |

Alimentary System

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                                       | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |   |
| Intestine Large, Cecum                          | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |   |
| Intestine Large, Colon                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |   |
| Intestine Large, Rectum                         | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |   |
| Intestine Small, Duodenum                       | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |   |
| Intestine Small, Ileum                          | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |   |
| Intestine Small, Jejunum                        | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |   |
| Carcinoma                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |
| Leiomyoma                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |
| Liver   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |
| Carcinoma, Metastatic, Intestine Small, Jejunum |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |
| Cholangiocarcinoma                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hepatocellular Carcinoma                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mesentery                                       |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |
| Mesothelioma Malignant                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Oral Mucosa                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |
| Squamous Cell Carcinoma                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Pancreas  | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Salivary Glands                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Forestomach                            | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

**Experiment Number:** 99920-93

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
**Test Compound:** ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

**Date Report Requested:** 10/23/2014

**Test Type:** SPECIAL STUDY

**Time Report Requested:** 11:56:14

**Route:** DOSED FEED

**CAS Number:** 57-63-6

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

**Species/Strain:** Rat/CD

**Lab:** NCTR

| CD Rat Female<br>F3/2PPB 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 |   |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                 | ANIMAL ID   | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |
|                                 |             | 1 | 9 | 2 | 4 | 4 | 5 | 9 | 0 | 9 | 2 | 2 | 7 | 8 | 8 | 9 | 0 | 0 | 1 | 2 | 2 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 4 |
|                                 |             | 8 | 5 | 2 | 1 | 8 | 7 | 7 | 9 | 9 | 4 | 1 | 3 | 0 | 3 | 6 | 0 | 8 | 8 | 2 | 6 | 6 | 9 | 9 | 9 | 9 | 9 | 9 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                                 |             | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 2 | 2 | 2 | 2 | 3 | 3 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|                                 |             | 0 | 0 | 4 | 8 | 9 | 1 | 9 | 0 | 0 | 1 | 4 | 5 | 5 | 6 | 6 | 7 | 8 | 8 | 9 | 0 | 2 | 3 | 3 | 3 | 3 | 4 | 6 | 7 | 7 | 8 |
|                                 |             | 8 | 5 | 9 | 4 | 9 | 2 | 9 | 6 | 3 | 8 | 0 | 4 | 7 | 4 | 8 | 3 | 5 | 9 | 9 | 3 | 8 | 1 | 2 | 4 | 5 | 3 | 8 | 3 | 4 | 0 |
| Stomach, Glandular              |             | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Tongue                          |             |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Cardiovascular System</b>    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Blood Vessel                    |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart                           |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| <b>Endocrine System</b>         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adrenal Cortex                  |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma                         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adrenal Medulla                 |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic              |             | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland               |             | + | A | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Pituitary Gland                 |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pars Distalis, Adenoma          |             |   |   | X |   | X |   | X | X | X | X |   |   |   | X | X |   | X |   |   | X | X | X | X | X |   |   |   | X | X |   |
| Thyroid Gland                   |             | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| C Cell, Adenoma                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>General Body System</b>      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| NONE                            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Genital System</b>           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Clitoral Gland                  |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma                         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Ovary                           |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:14  
 First Dose M/F: NA / NA  
 Lab: NCTR

| CD Rat Female<br>F3/2PPB 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 |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                 |             | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|                                 | ANIMAL ID   | 1 | 9 | 2 | 4 | 4 | 5 | 9 | 0 | 9 | 2 | 2 | 7 | 8 | 8 | 9 | 0 | 0 | 1 | 2 | 2 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 9 |
| Ovary                           | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Granulosa Cell Tumor Benign     |             |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Granulosa Cell Tumor Malignant  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Sertoli Cell Tumor Benign       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Oviduct                         | +           | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Uterus                          | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Endometrium, Adenocarcinoma     |             |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Endometrium, Adenoma            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Polyp Stromal                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Vagina                          | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| <b>Hematopoietic System</b>     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bone Marrow                     | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Lymph Node                      |             |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |
| Lymph Node, Mandibular          | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node, Mesenteric          | +           | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen                          | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thymus                          | +           | A | + | + | M | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | M | M | + | + | + | + | + | + | + | + | + | + |   |
| <b>Integumentary System</b>     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mammary Gland                   | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Adenocarcinoma                  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Adenocarcinoma, Multiple        |             |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fibroadenoma                    |             |   |   |   |   |   | X | X | X |   |   | X |   |   |   |   | X | X | X | X | X |   |   |   |   |   |   |   |   |   |   | X |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
**Test Compound:** ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
**CAS Number:** 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:14

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female<br>F3/2PPB TO CTL                          | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|---|---|---|---|
|  | 0<br>4<br>1<br>8      | 0<br>4<br>9<br>5      | 0<br>5<br>2<br>2      | 0<br>5<br>4<br>1      | 0<br>5<br>4<br>8      | 0<br>5<br>5<br>7      | 0<br>5<br>9<br>7      | 0<br>6<br>0<br>9      | 0<br>5<br>9<br>9      | 0<br>6<br>0<br>4      | 0<br>6<br>9<br>9      | 0<br>6<br>2<br>1      | 0<br>6<br>7<br>3      | 0<br>6<br>8<br>0      | 0<br>6<br>8<br>3      | 0<br>6<br>9<br>6      | 0<br>7<br>0<br>0      | 0<br>7<br>0<br>8      | 0<br>7<br>1<br>8      | 0<br>7<br>2<br>2      | 0<br>7<br>3<br>6      | 0<br>7<br>4<br>6      | 0<br>7<br>9<br>9      | 0<br>7<br>9<br>9      | 0<br>7<br>9<br>9      | 0<br>7<br>9<br>9      | 0<br>7<br>9<br>9      | 0<br>7<br>9<br>9      | 0<br>7<br>9<br>9      | 0<br>7<br>9<br>9      | 0<br>7<br>9<br>9      | 0<br>7<br>9<br>9      |   |   |   |   |   |
| ANIMAL ID  | 0<br>0<br>1<br>0<br>8 | 0<br>0<br>2<br>0<br>5 | 0<br>0<br>2<br>4<br>9 | 0<br>0<br>2<br>8<br>4 | 0<br>0<br>2<br>9<br>9 | 0<br>0<br>3<br>1<br>2 | 0<br>0<br>3<br>9<br>9 | 0<br>0<br>7<br>0<br>6 | 0<br>0<br>8<br>0<br>3 | 0<br>0<br>8<br>0<br>8 | 0<br>0<br>8<br>1<br>4 | 0<br>0<br>8<br>4<br>7 | 0<br>0<br>8<br>8<br>5 | 0<br>0<br>8<br>8<br>6 | 0<br>0<br>8<br>8<br>6 | 0<br>0<br>8<br>8<br>7 | 0<br>0<br>8<br>8<br>8 | 0<br>0<br>8<br>8<br>8 | 0<br>0<br>8<br>8<br>8 | 0<br>0<br>8<br>8<br>8 | 0<br>0<br>8<br>8<br>9 | 0<br>0<br>8<br>8<br>9 | 0<br>0<br>9<br>9<br>9 | 0<br>0<br>9<br>9<br>9 | 0<br>0<br>9<br>9<br>9 | 0<br>0<br>9<br>9<br>9 | 0<br>0<br>9<br>9<br>9 | 0<br>0<br>9<br>9<br>9 | 0<br>0<br>9<br>9<br>9 | 0<br>0<br>9<br>9<br>9 | 0<br>0<br>9<br>9<br>9 | 0<br>0<br>9<br>9<br>9 |   |   |   |   |   |
| Fibroadenoma, Multiple                                   |                       |                       |                       | X                     |                       |                       |                       |                       |                       | X                     |                       | X                     | X                     | X                     |                       |                       |                       |                       |                       |                       |                       | X                     | X                     | X                     | X                     |                       |                       |                       |                       |                       |                       | X                     |   |   |   |   |   |
| Skin   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     |   |   |   |   |   |
| Ear, Basal Cell Adenoma                                  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |
| Fibroma  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |
| <b>Musculoskeletal System</b>                            |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |
| Bone   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |
| Bone, Femur  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + |   |   |   |   |
| Skeletal Muscle  | +                     |                       |                       |                       |                       |                       |                       | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |
| Diaphragm, Granulosa Cell Tumor                          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |
| Malignant, Metastatic, Ovary                             |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   | X |   |
| Diaphragm, Mesothelioma Malignant, Metastatic, Mesentery |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   | X |   |
| <b>Nervous System</b>                                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |
| Brain, Brain Stem  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + | + |   |   |
| Brain, Cerebellum  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + | + | + |   |
| Brain, Cerebrum  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + | + | + |   |
| Peripheral Nerve   | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |
| Spinal Cord  | +                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |
| <b>Respiratory System</b>                                |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |
| Lung   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + | + | + |   |
| Mesothelioma Malignant, Metastatic, Mesentery            |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   | X |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
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Date Report Requested: 10/23/2014  
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 First Dose M/F: NA / NA  
 Lab: NCTR

| CD Rat Female<br>F3/2PPB 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 |   |   |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                 | ANIMAL ID   | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |   |
|                                 |             | 1 | 9 | 2 | 4 | 4 | 5 | 9 | 0 | 9 | 2 | 2 | 7 | 8 | 8 | 9 | 0 | 0 | 1 | 2 | 2 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 9 | 9 | 9 | 9 |   |   |
| Nose                            | 8           | 5 | 2 | 1 | 8 | 7 | 7 | 9 | 9 | 4 | 1 | 3 | 0 | 3 | 6 | 0 | 8 | 8 | 2 | 6 | 6 | 3 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |   |   |
| Trachea                         | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| Special Senses System           | 1           | 2 | 2 | 2 | 2 | 3 | 3 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |   |
| Urinary System                  | 0           | 0 | 4 | 8 | 9 | 1 | 9 | 0 | 0 | 0 | 1 | 4 | 5 | 5 | 6 | 6 | 7 | 8 | 8 | 9 | 0 | 2 | 3 | 3 | 3 | 3 | 4 | 6 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 |   |   |
| SYSTEMIC LESIONS                | 8           | 5 | 9 | 4 | 9 | 2 | 9 | 6 | 3 | 8 | 0 | 0 | 0 | 0 | 4 | 7 | 4 | 8 | 3 | 5 | 9 | 3 | 8 | 1 | 2 | 4 | 3 | 4 | 3 | 5 | 3 | 4 | 3 | 4 | 0 | 0 |   |   |
| Kidney                          | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Urinary Bladder                 | +           | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Mesothelioma Malignant          | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically



Experiment Number: 99920-93  
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 First Dose M/F: NA / NA  
 Lab: NCTR

CD Rat Female  
 F3/2PPB TO CTL

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

\*TOTALS

Alimentary System

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Large, Cecum                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Large, Colon                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Rectum                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Small, Duodenum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Small, Ileum                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Small, Jejunum                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Carcinoma                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Leiomyoma                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Liver   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Carcinoma, Metastatic, Intestine Small, Jejunum |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Cholangiocarcinoma                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | 1  |
| Hepatocellular Carcinoma                        |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesentery                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |
| Mesothelioma Malignant                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Oral Mucosa                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + | 4  |
| Squamous Cell Carcinoma                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pancreas  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Salivary Glands                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Stomach, Forestomach                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:15  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3/2PPB TO CTL**

| DAY ON TEST                  | 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 |                |
|                              | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |                |
|                              | 4 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 |                |
|                              | 9 | 0 | 0 | 9 | 2 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 9 | 7 |                |
|                              | 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 |                |
|                              | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |                |
|                              | 8 | 1 | 2 | 2 | 5 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 2 | 3 | 3 |                |
|                              | 1 | 7 | 2 | 3 | 0 | 4 | 5 | 6 | 3 | 4 | 7 | 8 | 2 | 3 | 4 | 2 | 3 | 3 |                |
|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>*TOTALS</b> |
| Stomach, Glandular<br>Tongue | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49<br>1        |
| <b>Cardiovascular System</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |
| Blood Vessel                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50             |
| Heart                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50             |
| <b>Endocrine System</b>      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |
| Adrenal Cortex               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50             |
| Adenoma                      |   |   |   |   |   |   |   |   |   |   |   |   |   | X | X |   |   |   | 2              |
| Adrenal Medulla              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50             |
| Islets, Pancreatic           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49             |
| Parathyroid Gland            | + | + | + | M | M | M | + | + | + | + | + | + | + | + | + | + | + | + | 45             |
| Pituitary Gland              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50             |
| Pars Distalis, Adenoma       | X | X | X | X |   |   |   | X | X | X | X | X | X |   | X | X | X | X | 30             |
| Thyroid Gland                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49             |
| C Cell, Adenoma              |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| <b>General Body System</b>   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |
| NONE                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |
| <b>Genital System</b>        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |
| Clitoral Gland               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50             |
| Adenoma                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Ovary                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50             |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:15  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3/2PPB TO CTL**

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

**\*TOTALS**

|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Ovary                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Granulosa Cell Tumor Benign    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Granulosa Cell Tumor Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Sertoli Cell Tumor Benign      |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | 2  |
| Oviduct                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Uterus                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Endometrium, Adenocarcinoma    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Endometrium, Adenoma           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Polyp Stromal                  |   |   |   |   |   | X |   |   |   | X |   |   |   |   | X |   |   | X | 7  |
| Vagina                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| <b>Hematopoietic System</b>    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Bone Marrow                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymph Node                     | + | + | + | + |   |   |   |   | + | + |   |   | + | + | + |   | + |   | 17 |
| Lymph Node, Mandibular         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymph Node, Mesenteric         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Spleen                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Thymus                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| <b>Integumentary System</b>    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Mammary Gland                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenocarcinoma                 |   |   |   | X |   |   |   | X |   |   |   |   |   |   |   | X |   |   | 4  |
| Adenocarcinoma, Multiple       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Fibroadenoma                   |   |   |   | X | X |   |   |   |   | X |   |   |   |   |   |   |   |   | 13 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:15  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3/2PPB TO CTL**

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

**\*TOTALS**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Fibroadenoma, Multiple                                   | X |   |   |   |   | X | X | X |   | X |   | X | X | X | X | X | X | 21 |
| Skin   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Ear, Basal Cell Adenoma                                  |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Fibroma  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| <b>Musculoskeletal System</b>                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Bone   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Bone, Femur  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4  |
| Diaphragm, Granulosa Cell Tumor                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Malignant, Metastatic, Ovary                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Diaphragm, Mesothelioma Malignant, Metastatic, Mesentery |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| <b>Nervous System</b>                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Brain, Brain Stem  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Brain, Cerebellum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Brain, Cerebrum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Peripheral Nerve   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Spinal Cord  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| <b>Respiratory System</b>                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Lung   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Mesothelioma Malignant, Metastatic, Mesentery            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:15  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3/2PPB TO CTL**

| DAY ON TEST                  | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|------------------------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANIMAL ID                    | 7              | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|                              | 4              | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 |
|                              | 9              | 0 | 0 | 9 | 2 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 9 | 7 |
|                              | 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 |
|                              | 9              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
|                              | 8              | 1 | 2 | 2 | 5 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 2 | 3 | 3 | 3 |
|                              | 1              | 7 | 2 | 3 | 0 | 4 | 5 | 6 | 3 | 4 | 7 | 8 | 2 | 3 | 4 | 4 | 2 | 3 | 4 |
|                              | <b>*TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nose                         | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Trachea                      | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| <b>Special Senses System</b> |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Eye                          | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Harderian Gland              | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| <b>Urinary System</b>        |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Kidney                       | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Urinary Bladder              | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| <b>SYSTEMIC LESIONS</b>      |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Multiple Organ               | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Mesothelioma Malignant       |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
Test Type: SPECIAL STUDY  
Route: DOSED FEED  
Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
Time Report Requested: 11:56:15  
First Dose M/F: NA / NA  
Lab: NCTR

| DAY ON TEST | CD Rat Female<br>F3/10PPBTO CTL |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|-------------|---------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|             | 0<br>1<br>3<br>9                | 0<br>1<br>8<br>2      | 0<br>4<br>9<br>0      | 0<br>5<br>3<br>2      | 0<br>5<br>4<br>0      | 0<br>5<br>5<br>6      | 0<br>6<br>0<br>3      | 0<br>6<br>0<br>8      | 0<br>6<br>2<br>0      | 0<br>6<br>2<br>0      | 0<br>6<br>3<br>6      | 0<br>6<br>5<br>5      | 0<br>6<br>6<br>6      | 0<br>6<br>7<br>0      | 0<br>6<br>8<br>2      | 0<br>6<br>8<br>7      | 0<br>6<br>8<br>8      | 0<br>6<br>8<br>8      | 0<br>6<br>9<br>2      | 0<br>6<br>9<br>8      | 0<br>7<br>0<br>6      | 0<br>7<br>1<br>3      | 0<br>7<br>1<br>7      | 0<br>7<br>2<br>1      | 0<br>7<br>2<br>8      | 0<br>7<br>3<br>4      | 0<br>7<br>3<br>9      | 0<br>7<br>4<br>9      | 0<br>7<br>4<br>9      | 0<br>7<br>7<br>9      |
| ANIMAL ID   | 0<br>0<br>0<br>2<br>0           | 0<br>0<br>0<br>2<br>2 | 0<br>0<br>1<br>9<br>3 | 0<br>0<br>2<br>6<br>2 | 0<br>0<br>2<br>7<br>8 | 0<br>0<br>3<br>0<br>9 | 0<br>0<br>6<br>0<br>5 | 0<br>0<br>7<br>0<br>7 | 0<br>0<br>8<br>0<br>7 | 0<br>0<br>8<br>0<br>7 | 0<br>0<br>8<br>1<br>9 | 0<br>0<br>8<br>2<br>7 | 0<br>0<br>8<br>3<br>8 | 0<br>0<br>8<br>3<br>5 | 0<br>0<br>8<br>5<br>5 | 0<br>0<br>8<br>5<br>5 | 0<br>0<br>8<br>5<br>5 | 0<br>0<br>8<br>6<br>8 | 0<br>0<br>8<br>6<br>7 | 0<br>0<br>8<br>6<br>8 | 0<br>0<br>8<br>7<br>8 | 0<br>0<br>8<br>8<br>8 | 0<br>0<br>9<br>8<br>4 | 0<br>0<br>9<br>8<br>1 | 0<br>0<br>9<br>8<br>4 | 0<br>0<br>9<br>9<br>5 | 0<br>0<br>9<br>9<br>8 | 0<br>0<br>9<br>9<br>4 | 0<br>0<br>9<br>9<br>6 | 0<br>0<br>9<br>9<br>7 |

Alimentary System

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |
| Intestine Large, Cecum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + |   |   |   |
| Lymphoma Malignant        |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Large, Colon    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |
| Intestine Large, Rectum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |
| Intestine Small, Ileum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |   |   |
| Intestine Small, Jejunum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + |   |   |
| Carcinoma                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Liver                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |
| Histiocytic Sarcoma       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |
| Lymphoma Malignant        |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mesothelioma Malignant    |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mesentery                 |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant        |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mesothelioma Malignant    |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Oral Mucosa               |   |   |   |   |   | + |   |   |   |   |   |   | + |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fibrous Histiocytoma      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Squamous Cell Carcinoma   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Pancreas                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Salivary Glands           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue  
M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:16

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female<br>F3/10PPBTO 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 |   |   |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | ANIMAL ID   | 1 | 1 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |
|  |             | 3 | 8 | 9 | 3 | 4 | 5 | 0 | 0 | 2 | 2 | 3 | 5 | 6 | 6 | 7 | 8 | 8 | 8 | 8 | 9 | 9 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 4 |
|  |             | 9 | 2 | 0 | 2 | 0 | 6 | 3 | 8 | 0 | 0 | 6 | 5 | 6 | 0 | 0 | 2 | 7 | 7 | 2 | 8 | 6 | 3 | 7 | 1 | 2 | 8 | 4 | 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 | 1 | 2 | 2 | 3 | 6 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 |   |
|  |             | 2 | 2 | 9 | 6 | 7 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 3 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 8 | 8 | 8 | 9 | 0 | 0 | 0 | 0 | 2 | 3 | 3 |   |
|  |             | 0 | 2 | 3 | 2 | 8 | 9 | 5 | 7 | 7 | 9 | 7 | 9 | 7 | 8 | 3 | 5 | 8 | 9 | 2 | 5 | 4 | 0 | 2 | 4 | 1 | 0 | 5 | 8 | 4 | 6 | 7 |   |
| Lymphoma Malignant                     |             |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Stomach, Forestomach                   |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Squamous Cell Papilloma                |             |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Stomach, Glandular                     |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| <b>Cardiovascular System</b>           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Blood Vessel                           |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Heart                                  |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| <b>Endocrine System</b>                |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adrenal Cortex                         |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Adenoma                                |             |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adrenal Medulla                        |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Islets, Pancreatic                     |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Parathyroid Gland                      |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | + | + | + | + | + |   |
| Pituitary Gland                        |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Pars Distalis, Adenoma                 |             |   |   | X | X |   |   |   | X |   | X | X | X |   | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |   |   |
| Thyroid Gland                          |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| C Cell, Adenoma                        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |
| C Cell, Carcinoma                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>General Body System</b>             |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Tissue NOS                             |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Squamous Cell Carcinoma, Deep Invasion |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:16  
 First Dose M/F: NA / NA  
 Lab: NCTR

| CD Rat Female<br>F3/10PPBTO 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 |   |   |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                 | ANIMAL ID   | 1 | 1 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|                                 |             | 3 | 8 | 9 | 3 | 4 | 5 | 0 | 0 | 2 | 2 | 3 | 5 | 6 | 7 | 8 | 8 | 8 | 8 | 9 | 9 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |   |
|                                 |             | 9 | 2 | 0 | 2 | 0 | 6 | 3 | 8 | 0 | 0 | 6 | 5 | 6 | 0 | 0 | 2 | 7 | 7 | 2 | 8 | 6 | 6 | 3 | 7 | 1 | 8 | 4 | 9 | 9 | 9 | 9 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                                 |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 2 | 2 | 3 | 6 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
|                                 |             | 2 | 2 | 9 | 6 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 3 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 8 | 8 | 8 | 9 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|                                 |             | 0 | 2 | 3 | 2 | 8 | 9 | 5 | 7 | 7 | 9 | 7 | 8 | 3 | 5 | 8 | 9 | 2 | 5 | 4 | 0 | 2 | 4 | 1 | 0 | 5 | 8 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |

**Genital System**

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland              | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |
| Adenoma                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |
| Lymphoma Malignant          |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Ovary                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |
| Granulosa Cell Tumor Benign |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |
| Lymphoma Malignant          |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mesothelioma Malignant      |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Sertoli Cell Tumor Benign   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Oviduct                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |
| Uterus                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |
| Endometrium, Adenoma        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant          |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Polyp Stromal               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Vagina                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Lymphoma Malignant          |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**Hematopoietic System**

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Bone Marrow                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Lymphoma Malignant                |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Lymph Node                        |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |  |
| Axillary, Lymphoma Malignant      |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Deep Cervical, Lymphoma Malignant |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically



Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
**Test Compound:** ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
**CAS Number:** 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:16

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female<br>F3/10PPBTO 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 |   |   |   |
|                                       | 1           | 1 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |   |   |
| ANIMAL ID                             | 3           | 8 | 9 | 3 | 4 | 5 | 0 | 0 | 2 | 2 | 3 | 5 | 6 | 7 | 8 | 8 | 8 | 9 | 9 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 4 |   |
|                                       | 9           | 2 | 0 | 2 | 0 | 6 | 3 | 8 | 0 | 6 | 5 | 6 | 0 | 0 | 2 | 7 | 7 | 2 | 8 | 6 | 6 | 3 | 7 | 1 | 8 | 4 | 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 |
| Lumbar, Lymphoma Malignant            |             |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mediastinal, Lymphoma Malignant       |             |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Renal, Lymphoma Malignant             |             |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mandibular                | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Carcinoma, Metastatic, Zymbal'S Gland |             |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant                    |             |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mesenteric                | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen                                | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant                    |             |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mesothelioma Malignant                |             |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thymus                                | +           | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | M | + | + | + | + | + | + | + | M | + | + | + |   |
| Histiocytic Sarcoma                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant                    |             |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Integumentary System</b>           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mammary Gland                         | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenocarcinoma                        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Adenocarcinoma, Multiple              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fibroadenoma                          |             |   | X |   | X | X | X |   |   |   |   |   | X | X |   | X | X | X | X | X |   | X | X |   | X | X |   | X | X |   | X |
| Fibroadenoma, Multiple                |             |   |   |   |   |   |   |   |   | X | X | X |   | X |   |   |   |   |   |   |   | X |   | X | X |   | X |   | X |   | X |
| Lymphoma Malignant                    |             |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Skin                                  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrous Histiocytoma                  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:16  
 First Dose M/F: NA / NA  
 Lab: NCTR

| CD Rat Female<br>F3/10PPBTO 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 |   |  |  |  |  |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|
|   | ANIMAL ID   | 1 | 1 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |  |  |  |  |
| Histiocytic Sarcoma                       |             | 3 | 8 | 9 | 3 | 4 | 5 | 0 | 0 | 2 | 2 | 3 | 5 | 6 | 7 | 8 | 8 | 8 | 9 | 9 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | 4 |   |   |  |  |  |  |
| Lymphoma Malignant                        |             | 9 | 2 | 0 | 2 | 0 | 6 | 3 | 8 | 0 | 0 | 6 | 5 | 6 | 0 | 0 | 2 | 7 | 7 | 2 | 8 | 6 | 6 | 3 | 7 | 1 | 1 | 8 | 4 | 9 | 9 | 9 |   |  |  |  |  |
| Sarcoma                                   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |  |  |  |
| Musculoskeletal System                    |             | 0 | 0 | 1 | 2 | 2 | 3 | 6 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |  |  |  |  |
| Bone, Femur                               |             | 2 | 2 | 9 | 6 | 7 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 3 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 8 | 8 | 8 | 9 | 0 | 0 | 0 | 2 | 3 | 3 | 3 | 3 |  |  |  |  |
| Nervous System                            |             | 0 | 2 | 3 | 2 | 8 | 9 | 5 | 7 | 7 | 9 | 7 | 9 | 8 | 3 | 5 | 8 | 9 | 2 | 5 | 4 | 0 | 2 | 5 | 8 | 4 | 6 | 7 |   |   |   |   |   |  |  |  |  |
| Brain, Brain Stem                         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |
| Brain, Cerebellum                         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |
| Brain, Cerebrum                           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |
| Meninges, Lymphoma Malignant              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |
| Respiratory System                        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |
| Lung                                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |
| Adenocarcinoma, Metastatic, Mammary Gland |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |
| Carcinoma, Metastatic, Thyroid Gland      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |
| Carcinoma, Metastatic, Zymbal'S Gland     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |
| Histiocytic Sarcoma                       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |
| Lymphoma Malignant                        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |
| Nose                                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |
| Lymphoma Malignant                        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |
| Trachea                                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically



Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:17  
 First Dose M/F: NA / NA  
 Lab: NCTR

CD Rat Female  
 F3/10PPBTO CTL

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

Alimentary System

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Large, Colon    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Rectum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Small, Jejunum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Carcinoma                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 1  |
| Liver                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesothelioma Malignant    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesentery                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   | + | 4  |
| Lymphoma Malignant        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesothelioma Malignant    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Oral Mucosa               |   |   |   |   | + | + |   |   |   | + |   |   |   |   |   |   |   |   |   | 7  |
| Fibrous Histiocytoma      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Squamous Cell Carcinoma   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   | 2  |
| Pancreas                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Salivary Glands           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:17

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female<br>F3/10PPBTO CTL        | DAY ON TEST | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |    |
|--|-------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
|  | ANIMAL ID   | 7              | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |    |
|  |             | 5              | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 |    |
|  |             | 0              | 0 | 8 | 9 | 9 | 0 | 9 | 8 | 1 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 5 |    |
|  |             | 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 |    |
|  |             | 9              | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |    |
|  |             | 6              | 7 | 8 | 1 | 1 | 1 | 2 | 2 | 5 | 7 | 7 | 7 | 8 | 9 | 2 | 2 | 3 | 3 |    |
|  |             | 4              | 5 | 2 | 5 | 6 | 9 | 1 | 9 | 2 | 1 | 2 | 7 | 6 | 5 | 5 | 6 | 8 | 7 |    |
|  |             | <b>*TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Lymphoma Malignant                     |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Stomach, Forestomach                   |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Squamous Cell Papilloma                |             |                |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   | 2  |
| Stomach, Glandular                     |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| <b>Cardiovascular System</b>           |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Blood Vessel                           |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart                                  |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| <b>Endocrine System</b>                |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Adrenal Cortex                         |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma                                |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Adrenal Medulla                        |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Islets, Pancreatic                     |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Parathyroid Gland                      |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 47 |
| Pituitary Gland                        |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pars Distalis, Adenoma                 |             | X              | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |   |   | 36 |
| Thyroid Gland                          |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| C Cell, Adenoma                        |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| C Cell, Carcinoma                      |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| <b>General Body System</b>             |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Tissue NOS                             |             |                |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   | 1  |
| Squamous Cell Carcinoma, Deep Invasion |             |                |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
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**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
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 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:17  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3/10PPBTO CTL**

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

**Genital System**

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Clitoral Gland              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Adenoma                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Ovary                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Granulosa Cell Tumor Benign |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesothelioma Malignant      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Sertoli Cell Tumor Benign   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   | 1  |
| Oviduct                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Uterus                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Endometrium, Adenoma        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Lymphoma Malignant          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Polyp Stromal               |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   | 2  |
| Vagina                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

**Hematopoietic System**

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymph Node                        |   |   |   | + |   |   | + |   |   |   |   | + |   |   | + |   |   | + | 10 |
| Axillary, Lymphoma Malignant      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Deep Cervical, Lymphoma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:17  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3/10PPBTO CTL**

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

**\*TOTALS**

|                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Lumbar, Lymphoma Malignant            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |    |
| Mediastinal, Lymphoma Malignant       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Renal, Lymphoma Malignant             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymph Node, Mandibular                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   | 50 |
| Carcinoma, Metastatic, Zymbal'S Gland |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymph Node, Mesenteric                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   | 50 |
| Spleen                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   | 50 |
| Lymphoma Malignant                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesothelioma Malignant                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Thymus                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   | 46 |
| Histiocytic Sarcoma                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| <b>Integumentary System</b>           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Mammary Gland                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   | 50 |
| Adenocarcinoma                        |   |   |   |   |   |   | X |   |   |   | X | X |   |   |   |   |   |   |   |   |   | 6  |
| Adenocarcinoma, Multiple              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |
| Fibroadenoma                          |   | X |   |   | X |   |   | X |   |   |   |   |   | X |   |   |   | X |   |   |   | 21 |
| Fibroadenoma, Multiple                | X |   | X | X |   | X | X |   |   | X | X | X |   | X |   |   | X |   |   |   |   | 19 |
| Lymphoma Malignant                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Skin                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   | 50 |
| Fibrous Histiocytoma                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:18  
 First Dose M/F: NA / NA  
 Lab: NCTR

| CD Rat Female<br>F3/10PPBTO CTL           | DAY ON TEST | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |    |
|---|-------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
|   | ANIMAL ID   | 7              | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |    |
|   |             | 5              | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 |    |
|   |             | 0              | 0 | 8 | 9 | 9 | 0 | 9 | 8 | 1 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 5 |    |
|   |             | 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 |    |
|   |             | 9              | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |    |
|   |             | 6              | 7 | 8 | 1 | 1 | 1 | 2 | 2 | 5 | 7 | 7 | 7 | 8 | 9 | 2 | 2 | 3 | 3 |    |
|   |             | 4              | 5 | 2 | 5 | 6 | 9 | 1 | 9 | 2 | 1 | 2 | 7 | 6 | 5 | 5 | 6 | 8 | 8 |    |
|   |             | <b>*TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Histiocytic Sarcoma                       |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant                        |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Sarcoma                                   |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| <b>Musculoskeletal System</b>             |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Bone, Femur                               |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |    |
|   |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |
| <b>Nervous System</b>                     |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Brain, Brain Stem                         |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |    |
|   |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |
| Brain, Cerebellum                         |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |    |
|   |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |
| Brain, Cerebrum                           |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |    |
|   |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |
| Meninges, Lymphoma Malignant              |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| <b>Respiratory System</b>                 |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Lung                                      |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |    |
|   |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |
| Adenocarcinoma, Metastatic, Mammary Gland |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Carcinoma, Metastatic, Thyroid Gland      |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Carcinoma, Metastatic, Zymbal'S Gland     |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Histiocytic Sarcoma                       |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant                        |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Nose                                      |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |    |
|   |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |
| Lymphoma Malignant                        |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Trachea                                   |             | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |    |
|   |             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically



Experiment Number: 99920-93  
Test Type: SPECIAL STUDY  
Route: DOSED FEED  
Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
Time Report Requested: 11:56:18  
First Dose M/F: NA / NA  
Lab: NCTR

CD Rat Female  
F3/10PPBTO CTL

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

**Special Senses System**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Ear                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + | 2 |    |
| Neural Crest Tumor                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | 2  |
| Eye                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   | 49 |
| Harderian Gland                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   | 50 |
| Lymphoma Malignant                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Squamous Cell Carcinoma, Deep Invasion |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   | 1  |
| Zymbal's Gland                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Carcinoma                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

**Urinary System**

|                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |    |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|----|
| Kidney                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  | 50 |
| Lymphoma Malignant    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  | 1  |
| Renal Tubule, Adenoma |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |  |  | 1  |
| Urinary Bladder       | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  | 49 |
| Lymphoma Malignant    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  | 1  |

**SYSTEMIC LESIONS**

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |    |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|----|
| Multiple Organ         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  | 50 |
| Histiocytic Sarcoma    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  | 1  |
| Lymphoma Malignant     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  | 1  |
| Mesothelioma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically



Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:18  
 First Dose M/F: NA / NA  
 Lab: NCTR

| DAY ON TEST    | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CD Rat Female  | 2         | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| F3/50PPBTO CTL | 8         | 2 | 0 | 2 | 3 | 9 | 4 | 6 | 7 | 9 | 9 | 0 | 1 | 3 | 6 | 8 | 7 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 4 | 4 | 4 | 4 |
|                | 7         | 1 | 0 | 7 | 0 | 3 | 8 | 1 | 8 | 6 | 7 | 3 | 6 | 3 | 9 | 0 | 7 | 9 | 2 | 4 | 7 | 5 | 3 | 1 | 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 | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 5 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 |
|                | 4         | 5 | 9 | 1 | 2 | 9 | 9 | 2 | 5 | 9 | 9 | 5 | 0 | 1 | 3 | 4 | 5 | 5 | 5 | 6 | 7 | 8 | 9 | 9 | 2 | 2 | 2 | 3 |
|                | 3         | 2 | 1 | 8 | 1 | 9 | 7 | 2 | 7 | 7 | 8 | 2 | 4 | 5 | 6 | 8 | 0 | 1 | 6 | 3 | 1 | 3 | 0 | 4 | 5 | 6 | 7 | 3 |

**Cardiovascular System**

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

**Endocrine System**

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adrenal Medulla            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pheochromocytoma Benign    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Islets, Pancreatic         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Parathyroid Gland          | + | + | + | + | M | + | + | M | + | + | + | + | M | + | M | + | + | + | + | M | + | + | + | + | + | + | + | + |
| Pituitary Gland            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pars Distalis, Adenoma     |   |   |   |   | X | X |   | X |   |   |   |   | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Thyroid Gland              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Bilateral, C Cell, Adenoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| C Cell, Adenoma            |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |

**General Body System**

Tissue NOS  
 Alveolar/Bronchiolar Carcinoma, Metastatic,  
 Lung

**Genital System**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:19

First Dose M/F: NA / NA

Lab: NCTR

Table with columns for DAY ON TEST and ANIMAL ID, and rows for CD Rat Female and F3/50PPBTO CTL. Contains numerical data for each animal.

Table with columns for various anatomical and histological findings (e.g., Adenoma, Ovary, Granulosa Cell Tumor Benign, Hematopoietic System, Integumentary System) and rows for individual animals, marked with +, X, or M.

\* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue
M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
**Test Compound:** ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
**CAS Number:** 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:19

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female<br>F3/50PPBTO 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 |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|   | ANIMAL ID   | 2 | 3 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|   |             | 8 | 2 | 0 | 2 | 3 | 9 | 4 | 6 | 7 | 9 | 9 | 0 | 1 | 3 | 6 | 8 | 7 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 4 | 4 | 4 | 4 | 4 |
|   |             | 7 | 1 | 0 | 7 | 0 | 3 | 8 | 1 | 8 | 6 | 7 | 3 | 6 | 3 | 9 | 0 | 7 | 9 | 2 | 4 | 7 | 5 | 3 | 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 | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 5 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 |
|   |             | 4 | 5 | 9 | 1 | 2 | 9 | 9 | 2 | 5 | 9 | 9 | 5 | 0 | 1 | 3 | 4 | 5 | 5 | 5 | 6 | 7 | 8 | 9 | 9 | 2 | 2 | 3 | 3 | 4 |
|   |             | 3 | 2 | 1 | 8 | 1 | 9 | 7 | 2 | 7 | 8 | 2 | 4 | 5 | 6 | 8 | 0 | 1 | 6 | 3 | 1 | 3 | 0 | 4 | 5 | 6 | 7 | 3 | 8 | 9 |
| Fibroadenoma                              |             |   |   |   |   |   |   |   |   |   | X | X | X |   | X |   | X | X |   |   | X |   |   |   |   |   |   |   |   | X |
| Fibroadenoma, Multiple                    |             |   |   |   | X |   |   | X |   |   |   |   |   |   | X | X |   | X |   |   | X | X |   | X | X | X |   |   | X |   |
| Skin                                      |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Basal Cell Adenoma                        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fibroma                                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |
| Sarcoma                                   |             |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Musculoskeletal System</b>             |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bone, Femur                               |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle                           |             |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Nervous System</b>                     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Brain, Brain Stem                         |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebellum                         |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Astrocytoma Malignant                     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Brain, Cerebrum                           |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Peripheral Nerve                          |             |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Spinal Cord                               |             |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Respiratory System</b>                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lung                                      |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenocarcinoma, Metastatic, Mammary Gland |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Alveolar/Bronchiolar Adenoma              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:19  
 First Dose M/F: NA / NA  
 Lab: NCTR

| CD Rat Female<br>F3/50PPBTO 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 |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                 | ANIMAL ID   | 2 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|                                 |             | 8 | 2 | 0 | 2 | 3 | 9 | 4 | 6 | 7 | 9 | 9 | 0 | 1 | 3 | 6 | 8 | 7 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 4 | 4 | 4 |
|                                 |             | 7 | 1 | 0 | 7 | 0 | 3 | 8 | 1 | 8 | 6 | 7 | 3 | 6 | 3 | 9 | 0 | 7 | 9 | 2 | 4 | 7 | 5 | 3 | 1 | 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 | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 5 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 |
|                                 |             | 4 | 5 | 9 | 1 | 2 | 9 | 9 | 2 | 5 | 9 | 9 | 5 | 0 | 1 | 3 | 4 | 5 | 5 | 5 | 6 | 7 | 8 | 9 | 9 | 2 | 2 | 3 |
|                                 |             | 3 | 2 | 1 | 8 | 1 | 9 | 7 | 2 | 7 | 7 | 8 | 2 | 4 | 5 | 6 | 8 | 0 | 1 | 6 | 3 | 3 | 0 | 4 | 5 | 6 | 7 | 8 |

|                                |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alveolar/Bronchiolar Carcinoma |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant             |  | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nose                           |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Trachea                        |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| <b>Special Senses System</b>   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Eye                            |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Harderian Gland                |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| <b>Urinary System</b>          |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Kidney                         |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liposarcoma                    |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nephroblastoma                 |  | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Renal Tubule, Adenoma          |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Urinary Bladder                |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Transit Epithe, Papilloma      |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>SYSTEMIC LESIONS</b>        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Multiple Organ                 |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant             |  | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
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Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:19  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3/50PPBTO CTL**

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

**Alimentary System**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Large, Colon    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Large, Rectum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Jejunum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Liver                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cholangioma               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesentery                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4  |
| Lymphoma Malignant        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Oral Mucosa               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Squamous Cell Carcinoma   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pancreas                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Salivary Glands           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Stomach, Forestomach      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Squamous Cell Carcinoma   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Stomach, Glandular        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93  
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**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:19  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3/50PPBTO CTL**

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

**\*TOTALS**

**Cardiovascular System**

|              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

**Endocrine System**

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adrenal Medulla            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pheochromocytoma Benign    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Islets, Pancreatic         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | 1  |
| Parathyroid Gland          | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | 44 |
| Pituitary Gland            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pars Distalis, Adenoma     | X |   | X | X | X | X | X |   |   |   | X | X |   | X |   | X | X | X | 32 |
| Thyroid Gland              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Bilateral, C Cell, Adenoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| C Cell, Adenoma            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

**General Body System**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Tissue NOS                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

**Genital System**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically



Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:19  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3/50PPBTO CTL**

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

**\*TOTALS**

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adenoma                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Ovary                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Granulosa Cell Tumor Benign |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Oviduct                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Uterus                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leiomyoma                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Polyp Stromal               |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   | 5  |
| Vagina                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| <b>Hematopoietic System</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Bone Marrow                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymph Node                  |   |   |   |   | + |   |   |   |   | + |   |   |   | + |   |   | + |   | 5  |
| Lymph Node, Mandibular      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymph Node, Mesenteric      | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Spleen                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Thymus                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| <b>Integumentary System</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
| Mammary Gland               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenocarcinoma              | X |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 10 |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically

Experiment Number: 99920-93

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 11:56:20

First Dose M/F: NA / NA

Lab: NCTR

| CD Rat Female<br>F3/50PPBTO CTL           | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | *TOTALS |    |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|----|
|   | ANIMAL ID   | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |         |    |
|   |             | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |         |    |
|   |             | 9 | 9 | 9 | 8 | 0 | 0 | 9 | 9 | 9 | 2 | 5 | 4 | 4 | 4 | 4 | 4 | 5 |         |    |
|   |             | 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 |         |    |
|   |             | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |         |    |
|   |             | 4 | 6 | 7 | 8 | 1 | 2 | 2 | 2 | 2 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | 2 |         |    |
|   |             | 1 | 9 | 6 | 4 | 8 | 0 | 4 | 5 | 8 | 1 | 3 | 8 | 9 | 0 | 9 | 0 | 1 |         |    |
| Fibroadenoma                              |             |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   | X | X | X       | 13 |
| Fibroadenoma, Multiple                    |             | X | X | X | X | X |   | X | X | X | X | X | X |   | X |   |   |   |         | 24 |
| Skin                                      |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +       | 50 |
| Basal Cell Adenoma                        |             |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |         | 1  |
| Fibroma                                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         | 1  |
| Sarcoma                                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         | 1  |
| <b>Musculoskeletal System</b>             |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |    |
| Bone, Femur                               |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +       | 50 |
| Skeletal Muscle                           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         | 1  |
| <b>Nervous System</b>                     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |    |
| Brain, Brain Stem                         |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +       | 50 |
| Brain, Cerebellum                         |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +       | 50 |
| Astrocytoma Malignant                     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         | 1  |
| Brain, Cerebrum                           |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +       | 50 |
| Peripheral Nerve                          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         | 1  |
| Spinal Cord                               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         | 1  |
| <b>Respiratory System</b>                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |    |
| Lung                                      |             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +       | 50 |
| Adenocarcinoma, Metastatic, Mammary Gland |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         | 1  |
| Alveolar/Bronchiolar Adenoma              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         | 1  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue

M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Experiment Number: 99920-93  
 Test Type: SPECIAL STUDY  
 Route: DOSED FEED  
 Species/Strain: Rat/CD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)  
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014  
 Time Report Requested: 11:56:20  
 First Dose M/F: NA / NA  
 Lab: NCTR

**CD Rat Female  
 F3/50PPBTO CTL**

| DAY ON TEST                    | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--------------------------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANIMAL ID                      | 7              | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|                                | 4              | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
|                                | 9              | 9 | 9 | 8 | 0 | 0 | 9 | 9 | 9 | 2 | 5 | 4 | 4 | 4 | 4 | 4 | 5 | 3 |
|                                | 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 |
|                                | 9              | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
|                                | 4              | 6 | 7 | 8 | 1 | 2 | 2 | 2 | 5 | 7 | 7 | 7 | 8 | 8 | 8 | 9 | 9 | 2 |
|                                | 1              | 9 | 6 | 4 | 8 | 0 | 4 | 5 | 8 | 1 | 3 | 8 | 9 | 0 | 9 | 0 | 1 | 6 |
|                                | <b>*TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Alveolar/Bronchiolar Carcinoma | X              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |
| Lymphoma Malignant             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |
| Nose                           | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Trachea                        | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| <b>Special Senses System</b>   |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Eye                            | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Harderian Gland                | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| <b>Urinary System</b>          |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Kidney                         | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liposarcoma                    | X              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |
| Nephroblastoma                 |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |
| Renal Tubule, Adenoma          |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |
| Urinary Bladder                | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Transit Epithe, Papilloma      | X              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |
| <b>SYSTEMIC LESIONS</b>        |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Multiple Organ                 | +              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant             |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |

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

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue

M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically