

**Experiment Number:** 20105 - 59

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

**Date Report Requested:** 01/02/2018

**Test Type:** CHRONIC

Cell Phone Radiation: GSM

**Time Report Requested:** 11:58:55

**Route:** Whole Body Exposure

**CAS Number:** CELLPRADGSM

**First Dose M/F:** 09/16/12 / 09/16/12

**Species/Strain:** RATS/HSD

**Lab:** IIT

Final 2 - Data Changes through 12-15-17 GSM Rats Core Only

**NTP Study Number:**

C20105

**Lock Date:**

12/29/2015

**Cage Range:**

ALL

**Date Range:**

ALL

**Reasons For Removal:**

25022 ACCK

25021 TSAC

25020 NATD

25019 MSAC

**Removal Date Range:**

ALL

**Treatment Groups:**

Include ALL

**Study Gender:**

Both

**TDMSE Version:**

3.0.2.3\_002

**PWG Approval Date:**

NONE

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First Dose M/F: 09/16/12 / 09/16/12

Species/Strain: RATS/HSD

Lab: IIT

Harlan Sprague Dawley RATS MALE	0.0W/kg(GSM)chr	1.5W/kg(GSM)chr	3.0W/kg(GSM)chr	6.0W/kg(GSM)chr
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**Disposition Summary**

<b>Animals Initially In Study</b>	<b>105</b>	<b>105</b>	<b>105</b>	<b>105</b>
<b>Early Deaths</b>				
<b>Accidentally Killed</b>	<b>1</b>			<b>1</b>
<b>Moribund Sacrifice</b>	<b>44</b>	<b>24</b>	<b>19</b>	<b>13</b>
<b>Natural Death</b>	<b>20</b>	<b>21</b>	<b>21</b>	<b>16</b>
<b>Survivors</b>				
<b>Terminal Sacrifice</b>	<b>25</b>	<b>45</b>	<b>50</b>	<b>60</b>
<b>Animals Examined Microscopically</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>

## ALIMENTARY SYSTEM

Esophagus	(90)	(89)	(90)	(90)
Intestine Large, Cecum	(75)	(75)	(79)	(80)
Intestine Large, Colon	(81)	(83)	(81)	(82)
Serosa, Pheochromocytoma Malignant, Metastatic, Adrenal Medulla			1 (1%)	
Intestine Large, Rectum	(83)	(81)	(85)	(87)
Intestine Small, Duodenum	(81)	(82)	(79)	(79)
Adenocarcinoma		1 (1%)		1 (1%)
Intestine Small, Ileum	(78)	(76)	(78)	(76)
Intestine Small, Jejunum	(73)	(76)	(70)	(76)
Adenocarcinoma	2 (3%)	1 (1%)	1 (1%)	1 (1%)
Liver	(90)	(90)	(90)	(90)
Cholangioma		1 (1%)		
Hepatocellular Adenoma		1 (1%)		2 (2%)
Hepatocellular Carcinoma			1 (1%)	
Pheochromocytoma Malignant, Metastatic, Adrenal Medulla			1 (1%)	
Serosa, Carcinoma, Metastatic, Intestine Small, Jejunum				1 (1%)
Mesentery	(39)	(19)	(17)	(7)
Pheochromocytoma Malignant, Metastatic, Adrenal Medulla			1 (6%)	
Oral Mucosa	(0)	(2)	(0)	(2)
Squamous Cell Carcinoma		1 (50%)		1 (50%)

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

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Species/Strain: RATS/HSD

Lab: IIT

Harlan Sprague Dawley RATS MALE	0.0W/kg(GSM)chr	1.5W/kg(GSM)chr	3.0W/kg(GSM)chr	6.0W/kg(GSM)chr
Pancreas	(90)	(89)	(88)	(86)
Adenoma	13 (14%)	17 (19%)	14 (16%)	12 (14%)
Adenoma, Multiple	5 (6%)	4 (4%)	4 (5%)	4 (5%)
Carcinoma	1 (1%)	1 (1%)	2 (2%)	
Carcinoma, Metastatic, Intestine Small, Jejunum				1 (1%)
Pheochromocytoma Malignant, Metastatic, Adrenal Medulla			1 (1%)	
Salivary Glands	(90)	(90)	(90)	(90)
Schwannoma Malignant		1 (1%)		
Sublingual Gland, Schwannoma Malignant, Metastatic, Uncertain Primary Site	1 (1%)			
Stomach, Forestomach	(90)	(90)	(90)	(90)
Sarcoma				1 (1%)
Squamous Cell Carcinoma				1 (1%)
Squamous Cell Papilloma	1 (1%)			
Stomach, Glandular	(86)	(88)	(87)	(86)
Tooth	(0)	(1)	(1)	(0)
Odontoma			1 (100%)	

## CARDIOVASCULAR SYSTEM

Aorta	(90)	(90)	(90)	(90)
Chemodectoma Malignant		1 (1%)		
Blood Vessel	(1)	(2)	(1)	(0)
Heart	(90)	(90)	(90)	(90)
Carcinoma, Metastatic, Adrenal Cortex				1 (1%)
Chemodectoma Malignant		1 (1%)		
Endocardium, Schwannoma Malignant		1 (1%)	1 (1%)	2 (2%)
Myocardium, Schwannoma Malignant		1 (1%)		3 (3%)

## ENDOCRINE SYSTEM

Adrenal Cortex	(90)	(90)	(90)	(88)
Adenoma	1 (1%)	4 (4%)	2 (2%)	1 (1%)

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Harlan Sprague Dawley RATS MALE	0.0W/kg(GSM)chr	1.5W/kg(GSM)chr	3.0W/kg(GSM)chr	6.0W/kg(GSM)chr
Carcinoma		1 (1%)		1 (1%)
Adrenal Medulla	(88)	(90)	(89)	(87)
Pheochromocytoma Benign	8 (9%)	21 (23%)	19 (21%)	14 (16%)
Pheochromocytoma Benign, Multiple	1 (1%)		2 (2%)	
Pheochromocytoma Complex	1 (1%)			
Pheochromocytoma Malignant	1 (1%)	1 (1%)	4 (4%)	
Bilateral, Pheochromocytoma Benign	1 (1%)	2 (2%)	4 (4%)	
Bilateral, Pheochromocytoma Malignant		1 (1%)		
Islets, Pancreatic	(90)	(89)	(86)	(85)
Adenoma	5 (6%)	12 (13%)	9 (10%)	10 (12%)
Adenoma, Multiple		2 (2%)	1 (1%)	1 (1%)
Carcinoma	8 (9%)	13 (15%)	10 (12%)	5 (6%)
Carcinoma, Multiple		2 (2%)		
Parathyroid Gland	(83)	(87)	(87)	(81)
Adenoma	1 (1%)	1 (1%)		1 (1%)
Pituitary Gland	(89)	(90)	(90)	(90)
Sarcoma, Metastatic, Eye			1 (1%)	
Schwannoma Malignant, Metastatic, Harderian Gland				1 (1%)
Schwannoma Malignant, Metastatic, Trigeminal Ganglion			1 (1%)	
Pars Distalis, Adenoma	17 (19%)	28 (31%)	25 (28%)	26 (29%)
Pars Distalis, Adenoma, Multiple			1 (1%)	
Thyroid Gland	(89)	(89)	(89)	(87)
Chemodectoma Malignant, Metastatic, Tissue Nos		1 (1%)		
Bilateral, C-cell, Adenoma			1 (1%)	1 (1%)
C-cell, Adenoma	8 (9%)	9 (10%)	7 (8%)	7 (8%)
C-cell, Carcinoma	2 (2%)	2 (2%)	2 (2%)	3 (3%)
Follicular Cell, Adenoma		1 (1%)	1 (1%)	
Follicular Cell, Adenoma, Multiple		1 (1%)		
Follicular Cell, Carcinoma				1 (1%)

## GENERAL BODY SYSTEM

Tissue NOS	(3)	(4)	(4)	(5)
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Chemodectoma Malignant		1 (25%)		
Abdominal, Fat, Hemangiosarcoma		1 (25%)		
Abdominal, Fat, Pheochromocytoma Malignant, Metastatic, Adrenal Medulla			1 (25%)	
Mediastinum, Chemodectoma Benign				1 (20%)
Mediastinum, Schwannoma Malignant	1 (33%)			

## GENITAL SYSTEM

Bulbourethral Gland	(1)	(0)	(0)	(0)
Coagulating Gland	(0)	(0)	(0)	(1)
Ductus Deferens	(1)	(0)	(0)	(0)
Epididymis	(90)	(90)	(90)	(90)
Penis	(0)	(0)	(0)	(1)
Preputial Gland	(88)	(90)	(90)	(90)
Squamous Cell Carcinoma				1 (1%)
Prostate	(90)	(90)	(90)	(90)
Adenoma	2 (2%)	2 (2%)	6 (7%)	3 (3%)
Carcinoma			1 (1%)	
Seminal Vesicle	(90)	(89)	(89)	(90)
Testis	(90)	(90)	(90)	(90)
Interstitial Cell, Adenoma	2 (2%)	2 (2%)	3 (3%)	2 (2%)

## HEMATOPOIETIC SYSTEM

Bone Marrow	(90)	(90)	(90)	(90)
Hemangioma				1 (1%)
Lymph Node	(25)	(22)	(18)	(12)
Mediastinal, Pheochromocytoma Malignant, Metastatic, Adrenal Medulla			1 (6%)	
Pancreatic, Pheochromocytoma Malignant, Metastatic, Adrenal Medulla			1 (6%)	
Lymph Node, Mandibular	(89)	(90)	(89)	(90)
Schwannoma Malignant, Metastatic, Salivary Glands		1 (1%)		
Lymph Node, Mesenteric	(90)	(89)	(86)	(89)

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Carcinoma, Metastatic, Intestine Small, Jejunum				1 (1%)
Hemangiosarcoma				1 (1%)
Spleen	(90)	(90)	(89)	(90)
Hemangiosarcoma	3 (3%)			1 (1%)
Capsule, Carcinoma, Metastatic, Intestine Small, Jejunum				1 (1%)
Thymus	(88)	(86)	(88)	(86)
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung		1 (1%)		
Thymoma Benign		2 (2%)	1 (1%)	
Thymoma Malignant				1 (1%)

## INTEGUMENTARY SYSTEM

Mammary Gland	(82)	(76)	(82)	(82)
Adenocarcinoma			1 (1%)	
Fibroadenoma	2 (2%)	3 (4%)	4 (5%)	2 (2%)
Skin	(90)	(90)	(90)	(90)
Basal Cell Adenoma	1 (1%)	1 (1%)		1 (1%)
Basal Cell Carcinoma			1 (1%)	
Keratoacanthoma	5 (6%)	3 (3%)	9 (10%)	2 (2%)
Neural Crest Tumor			1 (1%)	
Sarcoma			1 (1%)	
Squamous Cell Papilloma	2 (2%)			
Sebaceous Gland, Adenoma	1 (1%)			
Subcutaneous Tissue, Fibroma	2 (2%)	5 (6%)	7 (8%)	5 (6%)
Subcutaneous Tissue, Fibrosarcoma	1 (1%)	3 (3%)	1 (1%)	2 (2%)
Subcutaneous Tissue, Hemangiopericytoma			1 (1%)	
Subcutaneous Tissue, Hibernoma				1 (1%)
Subcutaneous Tissue, Lipoma	2 (2%)	3 (3%)	1 (1%)	2 (2%)
Subcutaneous Tissue, Malignant Fibrous Histiocytoma			1 (1%)	
Subcutaneous Tissue, Myxosarcoma			1 (1%)	
Subcutaneous Tissue, Sarcoma	2 (2%)	1 (1%)		1 (1%)

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## MUSCULOSKELETAL SYSTEM

Bone	(90)	(90)	(90)	(90)
Skeletal Muscle	(90)	(90)	(90)	(90)
Diaphragm, Carcinoma, Metastatic, Intestine Small, Jejunum				1 (1%)

## NERVOUS SYSTEM

Brain	(90)	(90)	(90)	(90)
Glioma Malignant		3 (3%)	3 (3%)	2 (2%)
Sarcoma, Metastatic, Eye			1 (1%)	
Schwannoma Malignant, Metastatic, Trigeminal Ganglion			1 (1%)	
Meninges, Granular Cell Tumor Benign	1 (1%)	3 (3%)	3 (3%)	3 (3%)
Meninges, Granular Cell Tumor Malignant			1 (1%)	
Nerve Trigeminal	(84)	(88)	(87)	(88)
Schwannoma Malignant, Metastatic, Trigeminal Ganglion			1 (1%)	
Peripheral Nerve, Sciatic	(90)	(90)	(90)	(90)
Peripheral Nerve, Tibial	(88)	(89)	(90)	(88)
Spinal Cord, Cervical	(90)	(90)	(90)	(90)
Spinal Cord, Lumbar	(90)	(90)	(90)	(90)
Spinal Cord, Thoracic	(90)	(90)	(90)	(90)
Trigeminal Ganglion	(75)	(73)	(77)	(77)
Sarcoma, Metastatic, Eye			1 (1%)	
Schwannoma Malignant			1 (1%)	

## RESPIRATORY SYSTEM

Lung	(90)	(90)	(90)	(90)
Alveolar/Bronchiolar Adenoma	1 (1%)	1 (1%)		
Alveolar/Bronchiolar Carcinoma		1 (1%)		
Carcinoma, Metastatic, Uncertain Primary Site		1 (1%)		
Sarcoma, Metastatic, Kidney				1 (1%)

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Schwannoma Malignant, Metastatic, Salivary Glands		1 (1%)		
Nose	(89)	(90)	(90)	(89)
Sarcoma, Metastatic, Eye			1 (1%)	
Schwannoma Malignant, Metastatic, Trigeminal Ganglion			1 (1%)	
Schwannoma Malignant, Metastatic, Uncertain Primary Site	1 (1%)			
Trachea	(90)	(88)	(87)	(86)
Chemodectoma Malignant, Metastatic, Tissue Nos		1 (1%)		

## SPECIAL SENSES SYSTEM

Eye	(85)	(86)	(87)	(83)
Choroid, Schwannoma Malignant			1 (1%)	
Retrobulbar, Sarcoma			1 (1%)	
Retrobulbar, Schwannoma Malignant, Metastatic, Trigeminal Ganglion			1 (1%)	
Retrobulbar, Schwannoma Malignant, Metastatic, Uncertain Primary Site	2 (2%)		1 (1%)	
Harderian Gland	(90)	(90)	(90)	(90)
Schwannoma Malignant			1 (1%)	2 (2%)
Schwannoma Malignant, Metastatic, Trigeminal Ganglion			1 (1%)	
Schwannoma Malignant, Metastatic, Uncertain Primary Site	2 (2%)		1 (1%)	
Lacrimal Gland	(2)	(1)	(2)	(2)

## URINARY SYSTEM

Kidney	(90)	(90)	(90)	(90)
Hemangioma		1 (1%)		
Lipoma	1 (1%)	1 (1%)		
Oncocytoma Benign	1 (1%)		1 (1%)	
Sarcoma			1 (1%)	1 (1%)
Bilateral, Renal Tubule, Adenoma				1 (1%)

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



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Bilateral, Renal Tubule, Adenoma, Multiple	1 (1%)			
Bilateral, Renal Tubule, Carcinoma	1 (1%)			1 (1%)
Renal Tubule, Adenoma	1 (1%)	1 (1%)	3 (3%)	1 (1%)
Renal Tubule, Adenoma, Multiple	1 (1%)			
Ureter	(0)	(1)	(0)	(0)
Urethra	(0)	(0)	(1)	(0)
Transitional Epithelium, Papilloma			1 (100%)	
Urinary Bladder	(89)	(89)	(86)	(85)
Carcinoma, Metastatic, Prostate			1 (1%)	

## SYSTEMIC LESIONS

Multiple Organ	*(90)	*(90)	*(90)	*(90)
Leukemia Mononuclear				1 (1%)
Lymphoma Malignant	2 (2%)	4 (4%)	4 (4%)	2 (2%)
Mesothelioma Malignant	2 (2%)	1 (1%)	6 (7%)	1 (1%)

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

\* Number of animals with any tissue examined microscopically

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**Tumor Summary for Males**

Total Animals with Primary Neoplasms (b)	56	73	78	71
Total Primary Neoplasms	114	176	179	141
Total Animals with Benign Neoplasms	49	68	71	57
Total Benign Neoplasms	87	132	131	104
Total Animals with Malignant Neoplasms	23	36	38	34
Total Malignant Neoplasms	27	44	47	37
Total Animals with Metastatic Neoplasms	2	4	5	3
Total Metastatic Neoplasms	6	6	20	8
Total Animals with Malignant Neoplasms Uncertain Primary Site	2	1	1	
Total Animals with Neoplasms Uncertain- Benign or Malignant			1	
Total Uncertain Neoplasms			1	

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

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b - Primary tumors: all tumors except metastatic tumors

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**Disposition Summary**

<b>Animals Initially In Study</b>	<b>105</b>	<b>105</b>	<b>105</b>	<b>105</b>
<b>Early Deaths</b>				
<b>Accidentally Killed</b>	<b>1</b>			
<b>Moribund Sacrifice</b>	<b>30</b>	<b>25</b>	<b>31</b>	<b>22</b>
<b>Natural Death</b>	<b>11</b>	<b>10</b>	<b>11</b>	<b>11</b>
<b>Survivors</b>				
<b>Moribund Sacrifice</b>	<b>1</b>	<b>2</b>		
<b>Natural Death</b>		<b>1</b>	<b>1</b>	
<b>Terminal Sacrifice</b>	<b>47</b>	<b>52</b>	<b>47</b>	<b>57</b>
<b>Animals Examined Microscopically</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>

## ALIMENTARY SYSTEM

Esophagus	(90)	(90)	(90)	(90)
Intestine Large, Cecum	(84)	(83)	(83)	(84)
Serosa, Adenocarcinoma, Metastatic, Pancreas			1 (1%)	
Intestine Large, Colon	(89)	(88)	(89)	(89)
Intestine Large, Rectum	(90)	(89)	(89)	(89)
Granular Cell Tumor Benign	1 (1%)			
Serosa, Sarcoma, Metastatic, Uterus		1 (1%)		
Intestine Small, Duodenum	(88)	(85)	(83)	(85)
Adenocarcinoma		1 (1%)		
Intestine Small, Ileum	(86)	(82)	(81)	(83)
Intestine Small, Jejunum	(83)	(82)	(81)	(84)
Leiomyosarcoma	1 (1%)	1 (1%)		
Serosa, Sarcoma Stromal, Metastatic, Uterus		1 (1%)		
Liver	(90)	(90)	(90)	(90)
Adenocarcinoma, Metastatic, Intestine Small, Duodenum		1 (1%)		
Adenocarcinoma, Metastatic, Pancreas			1 (1%)	
Carcinoma, Metastatic, Kidney		1 (1%)		
Carcinoma, Metastatic, Uncertain Primary Site		1 (1%)		
Hepatocellular Adenoma	7 (8%)	1 (1%)	1 (1%)	3 (3%)

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Hepatocellular Adenoma, Multiple		1 (1%)		
Hepatocellular Carcinoma		1 (1%)		
Sarcoma Stromal, Metastatic, Uterus		1 (1%)		
Serosa, Adenocarcinoma, Metastatic, Uterus		1 (1%)		
Mesentery	(4)	(5)	(5)	(5)
Adenocarcinoma, Metastatic, Intestine Small, Duodenum		1 (20%)		
Adenocarcinoma, Metastatic, Pancreas			1 (20%)	
Adenocarcinoma, Metastatic, Uterus	1 (25%)			
Sarcoma Stromal, Metastatic, Uterus		1 (20%)		
Schwannoma Malignant, Metastatic, Ovary			1 (20%)	
Oral Mucosa	(1)	(0)	(0)	(0)
Squamous Cell Carcinoma	1 (100%)			
Pancreas	(90)	(90)	(90)	(87)
Adenocarcinoma, Metastatic, Intestine Small, Duodenum		1 (1%)		
Adenocarcinoma, Metastatic, Uterus		1 (1%)		
Carcinoma, Metastatic, Uncertain Primary Site		1 (1%)		
Sarcoma Stromal, Metastatic, Uterus		1 (1%)		
Schwannoma Malignant, Metastatic, Ovary			1 (1%)	
Acinus, Adenocarcinoma			2 (2%)	
Salivary Glands	(90)	(89)	(90)	(90)
Myoepithelioma			1 (1%)	
Schwannoma Malignant				1 (1%)
Parotid Gland, Adenoma			1 (1%)	
Stomach, Forestomach	(90)	(90)	(90)	(90)
Sarcoma	1 (1%)			
Squamous Cell Papilloma			1 (1%)	
Stomach, Glandular	(90)	(89)	(90)	(89)
Sarcoma, Metastatic, Stomach, Forestomach	1 (1%)			
Serosa, Adenocarcinoma, Metastatic, Pancreas			1 (1%)	
Tongue	(1)	(0)	(0)	(0)
Squamous Cell Carcinoma	1 (100%)			
Tooth	(0)	(0)	(1)	(0)

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

Test Type: CHRONIC

Cell Phone Radiation: GSM

Time Report Requested: 11:58:55

Route: Whole Body Exposure

CAS Number: CELLPRADGSM

First Dose M/F: 09/16/12 / 09/16/12

Species/Strain: RATS/HSD

Lab: IIT

## Harlan Sprague Dawley RATS FEMALE

0.0W/kg(GSM)chr

1.5W/kg(GSM)chr

3.0W/kg(GSM)chr

6.0W/kg(GSM)chr

## CARDIOVASCULAR SYSTEM

Aorta	(90)	(90)	(90)	(90)
Heart	(90)	(90)	(90)	(90)
Endocardium, Schwannoma Malignant			1 (1%)	
Epicardium, Paraganglioma			1 (1%)	
Myocardium, Schwannoma Malignant			1 (1%)	

## ENDOCRINE SYSTEM

Adrenal Cortex	(90)	(90)	(89)	(90)
Adenocarcinoma, Metastatic, Intestine Small, Duodenum		1 (1%)		
Adenocarcinoma, Metastatic, Pancreas			1 (1%)	
Adenoma	1 (1%)	5 (6%)	1 (1%)	5 (6%)
Carcinoma	1 (1%)			
Sarcoma Stromal, Metastatic, Uterus		1 (1%)		
Adrenal Medulla	(86)	(90)	(90)	(86)
Adenocarcinoma, Metastatic, Pancreas			1 (1%)	
Pheochromocytoma Benign	1 (1%)	3 (3%)	3 (3%)	1 (1%)
Pheochromocytoma Complex		1 (1%)	1 (1%)	
Bilateral, Pheochromocytoma Benign				1 (1%)
Islets, Pancreatic	(90)	(89)	(90)	(87)
Adenoma	5 (6%)	4 (4%)	3 (3%)	4 (5%)
Carcinoma	2 (2%)	1 (1%)	4 (4%)	4 (5%)
Parathyroid Gland	(87)	(79)	(82)	(79)
Pituitary Gland	(90)	(90)	(90)	(90)
Schwannoma Malignant, Metastatic, Trigeminal Ganglion		1 (1%)		
Pars Distalis, Adenoma	42 (47%)	30 (33%)	35 (39%)	32 (36%)
Pars Distalis, Adenoma, Multiple	1 (1%)	3 (3%)	3 (3%)	
Pars Distalis, Carcinoma	1 (1%)	1 (1%)		1 (1%)
Thyroid Gland	(90)	(88)	(90)	(88)
Carcinoma, Metastatic, Kidney		2 (2%)		
Bilateral, C-cell, Adenoma		1 (1%)		1 (1%)
Bilateral, C-cell, Adenoma, Multiple		1 (1%)		

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Test Type: CHRONIC

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First Dose M/F: 09/16/12 / 09/16/12

Species/Strain: RATS/HSD

Lab: IIT

Harlan Sprague Dawley RATS FEMALE	0.0W/kg(GSM)chr	1.5W/kg(GSM)chr	3.0W/kg(GSM)chr	6.0W/kg(GSM)chr
C-cell, Adenoma	6 (7%)	9 (10%)	8 (9%)	12 (14%)
C-cell, Carcinoma			1 (1%)	1 (1%)
Follicular Cell, Carcinoma	1 (1%)			

## GENERAL BODY SYSTEM

Tissue NOS	(8)	(10)	(8)	(10)
Chemodectoma Benign			1 (13%)	
Abdominal, Schwannoma Malignant	1 (13%)			
Fat, Adenocarcinoma, Metastatic, Uterus			1 (13%)	
Mediastinum, Paraganglioma		1 (10%)		

## GENITAL SYSTEM

Clitoral Gland	(87)	(85)	(86)	(87)
Squamous Cell Carcinoma				1 (1%)
Ovary	(90)	(90)	(90)	(90)
Adenocarcinoma, Metastatic, Intestine Small, Duodenum		1 (1%)		
Adenocarcinoma, Metastatic, Pancreas			1 (1%)	
Cystadenoma	1 (1%)		1 (1%)	
Granulosa Cell Tumor Benign	1 (1%)			
Granulosa Cell Tumor Malignant	2 (2%)		1 (1%)	
Lymphangiosarcoma		1 (1%)		
Schwannoma Malignant			1 (1%)	
Sertoli Cell Tumor Benign	1 (1%)			
Sex Cord Stromal Tumor, Benign		1 (1%)	1 (1%)	
Tubulostromal Carcinoma				1 (1%)
Bilateral, Rete Ovarii, Adenoma				1 (1%)
Periovarian Tissue, Sarcoma Stromal, Metastatic, Uterus		1 (1%)		
Oviduct	(1)	(0)	(0)	(0)
Uterus	(90)	(89)	(90)	(90)
Adenocarcinoma	3 (3%)	1 (1%)	2 (2%)	5 (6%)
Adenocarcinoma, Metastatic, Pancreas			1 (1%)	

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

Test Type: CHRONIC

Cell Phone Radiation: GSM

Time Report Requested: 11:58:55

Route: Whole Body Exposure

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First Dose M/F: 09/16/12 / 09/16/12

Species/Strain: RATS/HSD

Lab: IIT

Harlan Sprague Dawley RATS FEMALE	0.0W/kg(GSM)chr	1.5W/kg(GSM)chr	3.0W/kg(GSM)chr	6.0W/kg(GSM)chr
Adenoma				1 (1%)
Hemangioma		1 (1%)		
Hemangiosarcoma	2 (2%)			
Leiomyosarcoma			1 (1%)	
Polyp Stromal	15 (17%)	11 (12%)	10 (11%)	16 (18%)
Polyp Stromal, Multiple	1 (1%)	6 (7%)	1 (1%)	1 (1%)
Sarcoma Stromal		1 (1%)	2 (2%)	
Schwannoma Malignant	1 (1%)		1 (1%)	
Squamous Cell Carcinoma			2 (2%)	
Cervix, Leiomyosarcoma	1 (1%)			
Cervix, Malignant Mixed Mullerian Tumor				1 (1%)
Cervix, Polyp Stromal		1 (1%)		
Cervix, Sarcoma		1 (1%)		
Cervix, Schwannoma Malignant	1 (1%)			1 (1%)
Vagina	(2)	(3)	(1)	(1)
Granular Cell Tumor Benign		1 (33%)		
Sarcoma, Metastatic, Uterus		1 (33%)		
Schwannoma Malignant	1 (50%)			
Schwannoma Malignant, Metastatic, Uterus	1 (50%)			

## HEMATOPOIETIC SYSTEM

Bone Marrow	(90)	(90)	(90)	(90)
Lymph Node	(13)	(14)	(21)	(14)
Bronchial, Adenocarcinoma, Metastatic, Intestine Small, Duodenum		1 (7%)		
Lumbar, Basal Cell Carcinoma, Metastatic, Skin		1 (7%)		
Mediastinal, Adenocarcinoma, Metastatic, Intestine Small, Duodenum		1 (7%)		
Mediastinal, Adenocarcinoma, Metastatic, Pancreas			1 (5%)	
Lymph Node, Mandibular	(90)	(89)	(89)	(90)
Lymph Node, Mesenteric	(90)	(90)	(90)	(90)
Adenocarcinoma, Metastatic, Intestine Small, Duodenum		1 (1%)		

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Test Type: CHRONIC

Cell Phone Radiation: GSM

Time Report Requested: 11:58:55

Route: Whole Body Exposure

CAS Number: CELLPRADGSM

First Dose M/F: 09/16/12 / 09/16/12

Species/Strain: RATS/HSD

Lab: IIT

Harlan Sprague Dawley RATS FEMALE	0.0W/kg(GSM)chr	1.5W/kg(GSM)chr	3.0W/kg(GSM)chr	6.0W/kg(GSM)chr
Hemangiosarcoma			1 (1%)	
Spleen	(90)	(90)	(90)	(90)
Hemangiosarcoma	1 (1%)			1 (1%)
Sarcoma Stromal, Metastatic, Uterus		1 (1%)		
Capsule, Adenocarcinoma, Metastatic, Intestine Small, Duodenum		1 (1%)		
Thymus	(87)	(86)	(88)	(86)
Schwannoma Malignant			1 (1%)	
Thymoma Benign	1 (1%)	1 (1%)		
Thymoma Malignant	1 (1%)	1 (1%)		
<b>INTEGUMENTARY SYSTEM</b>				
Mammary Gland	(90)	(89)	(89)	(90)
Adenocarcinoma	9 (10%)	5 (6%)	8 (9%)	6 (7%)
Adenocarcinoma, Multiple	1 (1%)	1 (1%)		
Adenoma	4 (4%)	5 (6%)	2 (2%)	2 (2%)
Adenoma, Multiple	4 (4%)			
Fibroadenoma	34 (38%)	43 (48%)	38 (43%)	32 (36%)
Fibroadenoma, Multiple	29 (32%)	25 (28%)	22 (25%)	30 (33%)
Myoepithelioma				1 (1%)
Skin	(90)	(90)	(90)	(90)
Basal Cell Carcinoma		1 (1%)		
Keratoacanthoma				1 (1%)
Pilomatrixoma			1 (1%)	
Squamous Cell Carcinoma			1 (1%)	1 (1%)
Squamous Cell Papilloma			1 (1%)	
Subcutaneous Tissue, Fibroma	2 (2%)	3 (3%)	2 (2%)	4 (4%)
Subcutaneous Tissue, Fibrosarcoma		1 (1%)		1 (1%)
Subcutaneous Tissue, Lipoma			1 (1%)	
Subcutaneous Tissue, Malignant Fibrous Histiocytoma	1 (1%)			
Subcutaneous Tissue, Sarcoma	2 (2%)			

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Test Type: CHRONIC

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Route: Whole Body Exposure

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Species/Strain: RATS/HSD

Lab: IIT

## Harlan Sprague Dawley RATS FEMALE

0.0W/kg(GSM)chr

1.5W/kg(GSM)chr

3.0W/kg(GSM)chr

6.0W/kg(GSM)chr

## MUSCULOSKELETAL SYSTEM

Bone	(90)	(90)	(90)	(90)
Skeletal Muscle	(90)	(90)	(90)	(90)
Sarcoma Stromal, Metastatic, Uterus		1 (1%)		
Diaphragm, Adenocarcinoma, Metastatic, Intestine Small, Duodenum		1 (1%)		
Diaphragm, Adenocarcinoma, Metastatic, Pancreas			1 (1%)	
Diaphragm, Carcinoma, Metastatic, Uncertain Primary Site		1 (1%)		

## NERVOUS SYSTEM

Brain	(90)	(90)	(90)	(90)
Carcinoma, Metastatic, Pituitary Gland	1 (1%)	1 (1%)		1 (1%)
Glioma Malignant				1 (1%)
Schwannoma Malignant, Metastatic, Trigeminal Ganglion		1 (1%)		
Meninges, Carcinoma, Metastatic, Kidney		2 (2%)		
Meninges, Granular Cell Tumor Benign	1 (1%)	1 (1%)	2 (2%)	
Meninges, Granular Cell Tumor Malignant				1 (1%)
Nerve Trigeminal	(84)	(88)	(89)	(90)
Schwannoma Malignant, Metastatic, Trigeminal Ganglion		1 (1%)		
Peripheral Nerve, Sciatic	(90)	(90)	(90)	(90)
Peripheral Nerve, Tibial	(90)	(90)	(90)	(89)
Spinal Cord, Cervical	(90)	(90)	(90)	(90)
Spinal Cord, Lumbar	(90)	(90)	(90)	(90)
Meninges, Carcinoma, Metastatic, Kidney		1 (1%)		
Spinal Cord, Thoracic	(90)	(90)	(90)	(90)
Trigeminal Ganglion	(81)	(79)	(80)	(79)
Schwannoma Malignant		1 (1%)		

## RESPIRATORY SYSTEM

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

Test Type: CHRONIC

Cell Phone Radiation: GSM

Time Report Requested: 11:58:55

Route: Whole Body Exposure

CAS Number: CELLPRADGSM

First Dose M/F: 09/16/12 / 09/16/12

Species/Strain: RATS/HSD

Lab: IIT

Harlan Sprague Dawley RATS FEMALE	0.0W/kg(GSM)chr	1.5W/kg(GSM)chr	3.0W/kg(GSM)chr	6.0W/kg(GSM)chr
Lung	(90)	(90)	(90)	(90)
Adenocarcinoma, Metastatic, Uterus			1 (1%)	
Alveolar/Bronchiolar Carcinoma		1 (1%)		
Basal Cell Carcinoma, Metastatic, Skin		1 (1%)		
Carcinoma, Metastatic, Thyroid Gland			1 (1%)	1 (1%)
Carcinoma, Metastatic, Uncertain Primary Site		2 (2%)		
Sarcoma Stromal, Metastatic, Uterus		1 (1%)		
Squamous Cell Carcinoma, Metastatic, Skin			1 (1%)	
Nose	(90)	(90)	(90)	(90)
Trachea	(89)	(90)	(89)	(87)

## SPECIAL SENSES SYSTEM

Eye	(88)	(85)	(87)	(87)
Retrobulbar, Schwannoma Malignant, Metastatic, Trigeminal Ganglion		1 (1%)		
Harderian Gland	(90)	(90)	(90)	(90)
Zymbal's Gland	(0)	(0)	(0)	(1)
Squamous Cell Papilloma				1 (100%)

## URINARY SYSTEM

Kidney	(90)	(90)	(90)	(89)
Adenocarcinoma, Metastatic, Intestine Small, Duodenum		1 (1%)		
Carcinoma, Metastatic, Uncertain Primary Site		1 (1%)		
Sarcoma Stromal, Metastatic, Uterus		1 (1%)		
Bilateral, Renal Tubule, Carcinoma	1 (1%)	1 (1%)		
Bilateral, Renal Tubule, Carcinoma, Multiple		1 (1%)		
Renal Tubule, Adenoma	1 (1%)	1 (1%)		
Renal Tubule, Adenoma, Multiple				1 (1%)
Renal Tubule, Carcinoma, Multiple				1 (1%)
Urinary Bladder	(88)	(88)	(90)	(87)
Leiomyosarcoma	1 (1%)			
Schwannoma Malignant, Metastatic, Ovary			1 (1%)	

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

Experiment Number: 20105 - 59

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

Date Report Requested: 01/02/2018

Test Type: CHRONIC

Cell Phone Radiation: GSM

Time Report Requested: 11:58:55

Route: Whole Body Exposure

CAS Number: CELLPRADGSM

First Dose M/F: 09/16/12 / 09/16/12

Species/Strain: RATS/HSD

Lab: IIT

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Harlan Sprague Dawley RATS FEMALE	0.0W/kg(GSM)chr	1.5W/kg(GSM)chr	3.0W/kg(GSM)chr	6.0W/kg(GSM)chr
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Schwannoma Malignant, Metastatic, Tissue Nos	1 (1%)			
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Serosa, Adenocarcinoma, Metastatic, Pancreas			1 (1%)	
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Urothelium, Carcinoma		1 (1%)		
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SYSTEMIC LESIONS

Multiple Organ	*(90)	*(90)	*(90)	*(90)
Histiocytic Sarcoma		1 (1%)		1 (1%)
Leukemia Mononuclear		1 (1%)	1 (1%)	
Lymphoma Malignant	5 (6%)	4 (4%)	2 (2%)	5 (6%)

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

\* Number of animals with any tissue examined microscopically

Test Type: CHRONIC

Cell Phone Radiation: GSM

Time Report Requested: 11:58:55

Route: Whole Body Exposure

CAS Number: CELLPRADGSM

First Dose M/F: 09/16/12 / 09/16/12

Species/Strain: RATS/HSD

Lab: IIT

Harlan Sprague Dawley RATS FEMALE	0.0W/kg(GSM)chr	1.5W/kg(GSM)chr	3.0W/kg(GSM)chr	6.0W/kg(GSM)chr
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**Tumor Summary for Females**

Total Animals with Primary Neoplasms (b)	89	87	82	86
Total Primary Neoplasms	202	189	175	184
Total Animals with Benign Neoplasms	82	83	75	80
Total Benign Neoplasms	159	159	140	150
Total Animals with Malignant Neoplasms	37	28	30	28
Total Malignant Neoplasms	43	30	34	34
Total Animals with Metastatic Neoplasms	5	11	5	2
Total Metastatic Neoplasms	5	44	18	2
Total Animals with Malignant Neoplasms Uncertain Primary Site		2		
Total Animals with Neoplasms Uncertain- Benign or Malignant			1	
Total Uncertain Neoplasms			1	

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

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

b - Primary tumors: all tumors except metastatic tumors