

Experiment Number: 20105 - 14

**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH
AVERAGE SEVERITY GRADES[b]**

Date Report Requested: 08/16/2017

Test Type: 28-DAY

Cell Phone Radiation: CDMA

Time Report Requested: 11:38:27

Route: Whole Body Exposure

CAS Number: CELLPRADCDMA

First Dose M/F: 12/09/10 / 12/09/10

Species/Strain: RATS/HSD

Lab: IIT

Final1_ Rats (CDMA)

NTP Study Number: C20105B
Lock Date: 11/06/2014
Cage Range: ALL
Date Range: ALL
Reasons For Removal: 25021 TSAC
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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| Harlan Sprague Dawley RATS MALE | 0W/kg(CDMA)PreC | 3W/kg(CDMA)PreC | 6W/kg(CDMA)PreC | 9W/kg(CDMA)PreC |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|
|---------------------------------|-----------------|-----------------|-----------------|-----------------|

Disposition Summary

| | | | | |
|---|-----------|-----------|-----------|-----------|
| Animals Initially In Study | 30 | 30 | 30 | 30 |
| Early Deaths | | | | |
| Survivors | | | | |
| Terminal Sacrifice | 10 | 10 | 10 | 10 |
| Animals Examined Microscopically | 10 | 10 | 10 | 10 |

ALIMENTARY SYSTEM

| | | | | |
|------------------------------|---------|-----|-----|---------|
| Esophagus | (10) | (0) | (0) | (10) |
| Intestine Large, Cecum | (10) | (0) | (0) | (10) |
| Intestine Large, Colon | (10) | (0) | (0) | (10) |
| Intestine Large, Rectum | (10) | (0) | (0) | (10) |
| Intestine Small, Duodenum | (10) | (0) | (0) | (10) |
| Intestine Small, Ileum | (10) | (0) | (0) | (10) |
| Intestine Small, Jejunum | (10) | (0) | (0) | (10) |
| Liver | (10) | (0) | (0) | (10) |
| Extramedullary Hematopoiesis | 1 [1.0] | | | 1 [1.0] |
| Inflammation, Focal | 4 [1.0] | | | 4 [1.0] |
| Pancreas | (10) | (0) | (0) | (10) |
| Salivary Glands | (10) | (0) | (0) | (10) |
| Stomach, Forestomach | (10) | (0) | (0) | (10) |
| Stomach, Glandular | (10) | (0) | (0) | (10) |
| Erosion | | | | 1 [1.0] |

CARDIOVASCULAR SYSTEM

| | | | | |
|----------------|---------|------|------|------|
| Blood Vessel | (10) | (0) | (0) | (10) |
| Heart | (10) | (10) | (10) | (10) |
| Cardiomyopathy | 1 [1.0] | | | |

ENDOCRINE SYSTEM

| | | | | |
|----------------|------|-----|-----|------|
| Adrenal Cortex | (10) | (0) | (0) | (10) |
|----------------|------|-----|-----|------|

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

b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)

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Lab: IIT

| Harlan Sprague Dawley RATS MALE | 0W/kg(CDMA)PreC | 3W/kg(CDMA)PreC | 6W/kg(CDMA)PreC | 9W/kg(CDMA)PreC |
|-----------------------------------|-----------------|-----------------|-----------------|-----------------|
| Accessory Adrenal Cortical Nodule | 1 | | | |
| Adrenal Medulla | (10) | (0) | (0) | (10) |
| Islets, Pancreatic | (10) | (0) | (0) | (10) |
| Parathyroid Gland | (7) | (0) | (0) | (10) |
| Pituitary Gland | (10) | (0) | (0) | (10) |
| Pars Distalis, Cyst | 2 | | | |
| Rathke's Cleft, Dilation | 8 [1.9] | | | 5 [1.4] |
| Thyroid Gland | (10) | (0) | (0) | (10) |
| Ectopic Thymus | 1 | | | 1 |
| Ultimobranchial Cyst | 2 | | | |

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

| | | | | |
|-----------------------------------|---------|---------|---------|---------|
| Epididymis | (10) | (0) | (0) | (10) |
| Infiltration Cellular, Mixed Cell | | | | 2 [1.0] |
| Preputial Gland | (10) | (10) | (10) | (10) |
| Inflammation, Chronic | 4 [1.0] | 4 [1.0] | 3 [1.0] | 8 [1.1] |
| Bilateral, Inflammation, Chronic | | 3 [1.3] | 3 [1.3] | 1 [1.0] |
| Prostate | (10) | (0) | (0) | (10) |
| Seminal Vesicle | (10) | (0) | (0) | (10) |
| Testes | (10) | (0) | (0) | (10) |

HEMATOPOIETIC SYSTEM

| | | | | |
|------------------------|---------|-----|-----|------|
| Bone Marrow | (10) | (0) | (0) | (10) |
| Lymph Node, Mandibular | (10) | (0) | (0) | (10) |
| Hemorrhage | 2 [1.5] | | | |
| Lymph Node, Mesenteric | (10) | (0) | (0) | (10) |
| Spleen | (10) | (0) | (0) | (10) |
| Thymus | (10) | (0) | (1) | (10) |

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|---|-----------------|-----------------|-----------------|-----------------|
| Congestion | | | 1 [2.0] | |
| INTEGUMENTARY SYSTEM | | | | |
| Mammary Gland | (10) | (0) | (0) | (10) |
| Skin | (10) | (0) | (0) | (10) |
| MUSCULOSKELETAL SYSTEM | | | | |
| Bone | (10) | (0) | (0) | (10) |
| NERVOUS SYSTEM | | | | |
| Brain | (10) | (10) | (10) | (10) |
| RESPIRATORY SYSTEM | | | | |
| Lung | (10) | (0) | (0) | (10) |
| Hemorrhage | 1 [2.0] | | | |
| Inflammation | 1 [1.0] | | | |
| Perivascular, Infiltration Cellular, Eosinophil | 1 [1.0] | | | 1 [1.0] |
| Nose | (10) | (0) | (0) | (10) |
| Glands, Respiratory Epithelium, Cyst | 1 | | | |
| Olfactory Epithelium, Cyst | | | | 1 |
| Respiratory Epithelium, Hyperplasia | 2 [1.0] | | | 2 [1.0] |
| Trachea | (10) | (0) | (0) | (10) |
| SPECIAL SENSES SYSTEM | | | | |
| Eye | (10) | (0) | (0) | (10) |
| Harderian Gland | (10) | (0) | (0) | (10) |

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

0W/kg(CDMA)PreC

3W/kg(CDMA)PreC

6W/kg(CDMA)PreC

9W/kg(CDMA)PreC

URINARY SYSTEM

| | | | | |
|----------------------------------|---------|---------|---------|---------|
| Kidney | (10) | (10) | (10) | (10) |
| Nephropathy, Chronic Progressive | 3 [1.0] | 6 [1.0] | 4 [1.0] | 2 [1.0] |
| Pelvis, Dilation | 1 [2.0] | | | |
| Renal Tubule, Casts Protein | 1 [1.0] | 1 [1.0] | | 2 [1.0] |
| Renal Tubule, Degeneration | | | | 1 [1.0] |
| Urinary Bladder | (10) | (0) | (0) | (10) |

*** END OF MALE ***

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Harlan Sprague Dawley RATS FEMALE

0W/kg(CDMA)PreC

3W/kg(CDMA)PreC

6W/kg(CDMA)PreC

9W/kg(CDMA)PreC

Disposition Summary

| | | | | |
|---|-----------|-----------|-----------|-----------|
| Animals Initially In Study | 30 | 30 | 30 | 30 |
| Early Deaths | | | | |
| Survivors | | | | |
| Terminal Sacrifice | 10 | 10 | 10 | 10 |
| Animals Examined Microscopically | 10 | 10 | 10 | 10 |

ALIMENTARY SYSTEM

| | | | | |
|------------------------------|---------|-----|-----|---------|
| Esophagus | (10) | (0) | (0) | (10) |
| Intestine Large, Cecum | (10) | (0) | (0) | (10) |
| Intestine Large, Colon | (10) | (0) | (0) | (10) |
| Intestine Large, Rectum | (10) | (0) | (0) | (10) |
| Intestine Small, Duodenum | (10) | (0) | (0) | (10) |
| Intestine Small, Ileum | (10) | (0) | (0) | (10) |
| Intestine Small, Jejunum | (10) | (0) | (0) | (10) |
| Liver | (10) | (0) | (0) | (10) |
| Extramedullary Hematopoiesis | 1 [1.0] | | | |
| Hepatodiaphragmatic Nodule | 1 | | | |
| Inflammation, Focal | 4 [1.0] | | | 7 [1.0] |
| Pancreas | (10) | (0) | (0) | (10) |
| Salivary Glands | (10) | (0) | (0) | (10) |
| Stomach, Forestomach | (10) | (0) | (0) | (10) |
| Stomach, Glandular | (10) | (0) | (0) | (10) |

CARDIOVASCULAR SYSTEM

| | | | | |
|--------------|------|------|------|------|
| Blood Vessel | (10) | (0) | (0) | (10) |
| Heart | (10) | (10) | (10) | (10) |

ENDOCRINE SYSTEM

| | | | | |
|-----------------------------------|------|-----|-----|------|
| Adrenal Cortex | (10) | (0) | (0) | (10) |
| Accessory Adrenal Cortical Nodule | 4 | | | |

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|-----------------------------------|-----------------|-----------------|-----------------|-----------------|
| Adrenal Medulla | (10) | (0) | (0) | (10) |
| Islets, Pancreatic | (10) | (0) | (0) | (10) |
| Parathyroid Gland | (10) | (0) | (0) | (9) |
| Pituitary Gland | (10) | (0) | (0) | (10) |
| Pars Distalis, Cyst | | | | 1 |
| Rathke's Cleft, Dilation | 6 [1.0] | | | 2 [1.0] |
| Thyroid Gland | (10) | (0) | (0) | (10) |
| Ectopic Thymus | 5 | | | |
| Ultimobranchial Cyst | 3 | | | |

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

| | | | | |
|----------------------------------|---------|---------|---------|---------|
| Clitoral Gland | (10) | (10) | (10) | (10) |
| Inflammation, Chronic | 5 [1.0] | 6 [1.0] | 7 [1.0] | 4 [1.0] |
| Bilateral, Inflammation, Chronic | 1 [1.0] | 1 [1.0] | 3 [1.3] | 5 [1.2] |
| Ovary | (10) | (0) | (0) | (10) |
| Hemorrhage | | | | 1 [2.0] |
| Mineral | 1 [1.0] | | | |
| Uterus | (10) | (0) | (0) | (10) |

HEMATOPOIETIC SYSTEM

| | | | | |
|------------------------|------|-----|---------|---------|
| Bone Marrow | (10) | (0) | (0) | (10) |
| Lymph Node, Mandibular | (10) | (0) | (0) | (10) |
| Lymph Node, Mesenteric | (10) | (0) | (0) | (10) |
| Hemorrhage | | | | 1 [1.0] |
| Spleen | (10) | (0) | (0) | (10) |
| Thymus | (10) | (0) | (1) | (10) |
| Hemorrhage | | | 1 [2.0] | |

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|---|-----------------|-----------------|-----------------|-----------------|
| INTEGUMENTARY SYSTEM | | | | |
| Mammary Gland | (10) | (0) | (0) | (10) |
| Skin | (10) | (0) | (0) | (10) |
| MUSCULOSKELETAL SYSTEM | | | | |
| Bone | (10) | (0) | (0) | (10) |
| NERVOUS SYSTEM | | | | |
| Brain | (10) | (10) | (10) | (10) |
| RESPIRATORY SYSTEM | | | | |
| Lung | (10) | (0) | (0) | (10) |
| Congestion | | | | 1 [2.0] |
| Hemorrhage | 2 [1.0] | | | |
| Metaplasia, Osseous | 1 [1.0] | | | |
| Mineral | 1 [1.0] | | | |
| Alveolus, Inflammation, Chronic Active | 1 [1.0] | | | |
| Perivascular, Infiltration Cellular, Eosinophil | | | | 3 [1.0] |
| Subpleura, Inflammation, Chronic | 2 [1.0] | | | 5 [1.0] |
| Nose | (10) | (0) | (0) | (10) |
| Respiratory Epithelium, Hyperplasia | 2 [1.0] | | | |
| Trachea | (10) | (0) | (0) | (10) |
| SPECIAL SENSES SYSTEM | | | | |
| Eye | (10) | (0) | (0) | (10) |
| Retina, Dysplasia | | | | 1 [1.0] |
| Harderian Gland | (10) | (0) | (0) | (10) |

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URINARY SYSTEM

| | | | | |
|----------------------------------|---------|---------|---------|---------|
| Kidney | (10) | (10) | (10) | (10) |
| Nephropathy, Chronic Progressive | | 2 [1.0] | 4 [1.0] | 3 [1.0] |
| Renal Tubule, Casts Protein | 2 [1.0] | | | |
| Renal Tubule, Degeneration | | | | 1 [1.0] |
| Urinary Bladder | (10) | (0) | (0) | (10) |

*** END OF REPORT ***

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b-Average severity grade(1-minimal;2-mild;3-moderate;4-marked)