Experiment Number: 99930-96
Test Type: SPECIAL STUDY
Route: DOSED FEED

Species/Strain: Rat/CD

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a)

Test Compound: Endocrine disruptor (Genistein)

CAS Number: 446-72-0

Date Report Requested: 10/19/2014 Time Report Requested: 04:27:16

First Dose M/F: NA / NA

Lab: NCTR

C Number: MG96005

Lock Date: Not Entered.

Cage Range: All

Date Range: All

Reasons For Removal:

Removal Date Range: All

Treatment Groups: All

Study Gender: Both

PWG Approval Date NONE

Route: DOSED FEED

Species/Strain: Rat/CD

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Lab: NCTR

| CD Rat MALE | F3 0 PPM | F3/5PPM TO CTL | F3/100PPM TO CTL | F3/500PPM TO CTI |
|-----------------------------------|----------|----------------|------------------|------------------|
| Disposition Summary | | | | |
| Animals Initially In Study | 25 | 25 | 25 | 25 |
| Early Deaths | | | | |
| Survivors | | | | |
| Terminal Sacrifice | 25 | 25 | 25 | 25 |
| Animals Examined Microscopically | 25 | 25 | 25 | 25 |
| ALIMENTARY SYSTEM | | | | |
| Liver | (25) | (0) | (0) | (24) |
| Fibrosis | 1 (4%) | | | |
| Hepatodiaphragmatic Nodule | 1 (4%) | | | |
| Inflammation, Chronic | 22 (88%) | | | 23 (96%) |
| Necrosis | 2 (8%) | | | 1 (4%) |
| Vacuolization Cytoplasmic | 3 (12%) | | | |
| CARDIOVASCULAR SYSTEM | | | | |
| Blood Vessel | (0) | (0) | (0) | (1) |
| ENDOCRINE SYSTEM | | | | |
| Adrenal Cortex | (25) | (0) | (0) | (25) |
| Accessory Adrenal Cortical Nodule | 3 (12%) | | | 1 (4%) |
| Adrenal Medulla | (25) | (0) | (0) | (25) |
| Pituitary Gland | (25) | (0) | (0) | (25) |
| Pars Distalis, Cyst | 1 (4%) | | | |
| Pars Distalis, Cyst, Multiple | 3 (12%) | | | 1 (4%) |
| Thyroid Gland | (25) | (0) | (0) | (25) |
| Inflammation, Chronic | 1 (4%) | | | |

GENITAL SYSTEM

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

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First Dose M/F: NA / NA

Lab: NCTR

| CD Rat MALE | F3 0 PPM | F3/5PPM TO CTL | F3/100PPM TO CTL | F3/500PPM TO CTL |
|-----------------------------------|----------|----------------|------------------|------------------|
| Coagulating Gland | (25) | (25) | (25) | (25) |
| Ductus Deferens | (0) | (1) | (0) | (0) |
| Ectasia | | 1 (100%) | | |
| Epididymis | (25) | (25) | (25) | (25) |
| Degeneration | 1 (4%) | | | |
| Hypospermia | 1 (4%) | 1 (4%) | | |
| Infiltration Cellular, Lymphocyte | 3 (12%) | | | 1 (4%) |
| Prostate | (3) | (5) | (3) | (5) |
| Prostate, Dorsal Lobe | (25) | (25) | (25) | (25) |
| Epithelium, Hyperplasia | 1 (4%) | | | |
| Inflammation, Chronic | 8 (32%) | 1 (4%) | 6 (24%) | 7 (28%) |
| Inflammation, Suppurative | 5 (20%) | 8 (32%) | 10 (40%) | 2 (8%) |
| Lymphatic, Ectasia | | 1 (4%) | | |
| Prostate, Ventral Lobe | (25) | (25) | (25) | (25) |
| Inflammation, Chronic | 18 (72%) | 19 (76%) | 17 (68%) | 19 (76%) |
| Inflammation, Suppurative | 3 (12%) | 4 (16%) | 5 (20%) | 3 (12%) |
| Rete Testes | (24) | (25) | (25) | (24) |
| Dilatation | 1 (4%) | 2 (8%) | | |
| Seminal Vesicle | (25) | (25) | (25) | (25) |
| Dilatation | 3 (12%) | | | 1 (4%) |
| Lymphatic, Ectasia | | 1 (4%) | | |
| Testes | (25) | (24) | (25) | (25) |
| Seminif Tub, Degeneration | 2 (8%) | 1 (4%) | 2 (8%) | 3 (12%) |
| IEMATOPOIETIC SYSTEM | | | | |
| Bone Marrow | (25) | (0) | (0) | (25) |
| Spleen | (25) | (0) | (0) | (25) |
| Adventitia, Inflammation, Chronic | 1 (4%) | . , | . , | . , |
| Hyperplasia, Stromal | , , | | | 2 (8%) |
| Pigmentation | 2 (8%) | | | 4 (16%) |
| Thymus | (25) | (0) | (0) | (25) |

Experiment Number: 99930-96

Test Type: SPECIAL STUDY

Route: DOSED FEED

Species/Strain: Rat/CD

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

Route: DOSED FEED

Species/Strain: Rat/CD

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Test Compound: Endocrine disruptor (Genistein)

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First Dose M/F: NA / NA

Lab: NCTR

| CD Rat MALE | F3 0 PPM | F3/5PPM TO CTL | F3/100PPM TO CTL | F3/500PPM TO CTI |
|----------------------------|----------|----------------|------------------|------------------|
| Epithel Cell, Hyperplasia | 1 (4%) | | | |
| INTEGUMENTARY SYSTEM | | | | |
| Mammary Gland | (24) | (25) | (25) | (23) |
| Alveolus, Hyperplasia | 4 (17%) | 2 (8%) | 5 (20%) | 4 (17%) |
| Duct, Hyperplasia | | | 1 (4%) | 4 (17%) |
| Skin | (24) | (0) | (0) | (25) |
| MUSCULOSKELETAL SYSTEM | | | | |
| Bone, Femur | (25) | (0) | (0) | (25) |
| Bone, Vertebra | (0) | (1) | (0) | (0) |
| Malformation | | 1 (100%) | | |
| NERVOUS SYSTEM | | | | |
| None | | | | |
| RESPIRATORY SYSTEM | | | | |
| None | | | , | |
| SPECIAL SENSES SYSTEM | | | | |
| None | | | | |
| URINARY SYSTEM | | | | |
| Kidney | (25) | (1) | (0) | (25) |
| Capsule, Fat, Cyst | | 1 (100%) | | 1 (4%) |
| Casts Protein | | | | 1 (4%) |
| Inflammation, Chronic | 21 (84%) | | | 18 (72%) |
| Pelvis, Dilatation | · | | | 1 (4%) |
| Renal Tubule, Dilatation | 8 (32%) | | | 4 (16%) |
| Renal Tubule, Regeneration | 8 (32%) | | | 13 (52%) |

^{***}END OF MALE DATA***

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

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First Dose M/F: NA / NA

Lab: NCTR

| CD Rat FEMALE | F3 0 PPM | F3/5PPM TO CTL | F3/100PPM TO CTL | F3/500PPM TO CTL |
|----------------------------------|----------|----------------|------------------|------------------|
| Disposition Summary | | | | |
| Animals Initially In Study | 25 | 25 | 25 | 25 |
| Early Deaths | | | | |
| Survivors | | | | |
| Terminal Sacrifice | 25 | 25 | 25 | 25 |
| Animals Examined Microscopically | 25 | 25 | 25 | 25 |
| ALIMENTARY SYSTEM | | | | |
| Liver | (25) | (2) | (0) | (24) |
| Developmental Malformation | 1 (4%) | | | |
| Hepatodiaphragmatic Nodule | | 1 (50%) | | |
| Inflammation, Chronic Active | | | | 1 (4%) |
| CARDIOVASCULAR SYSTEM | | | | |
| None | | | | |
| ENDOCRINE SYSTEM | | | | |
| Adrenal Cortex | (25) | (1) | (0) | (25) |
| Hyperplasia, Focal | 1 (4%) | | | |
| Adrenal Medulla | (25) | (1) | (0) | (25) |
| Pituitary Gland | (25) | (1) | (0) | (25) |
| Thyroid Gland | (25) | (1) | (0) | (25) |
| GENERAL BODY SYSTEM | | | | |
| None | | | | |
| GENITAL SYSTEM | | | | |
| Ovary | (25) | (25) | (25) | (25) |
| Diestrus | 7 (28%) | 2 (8%) | 9 (36%) | 6 (24%) |
| Estrus | 9 (36%) | 8 (32%) | 3 (12%) | 6 (24%) |
| Metestrus | 3 (12%) | 10 (40%) | 4 (16%) | 7 (28%) |
| Proestrus | 6 (24%) | 5 (20%) | 9 (36%) | 6 (24%) |

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

Route: DOSED FEED

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| CD Rat FEMALE | F3 0 PPM | F3/5PPM TO CTL | F3/100PPM TO CTL | F3/500PPM TO CTL |
|----------------------------------|----------|----------------|------------------|------------------|
| Oviduct | (25) | (25) | (25) | (25) |
| Uterus | (25) | (25) | (25) | (25) |
| Decidual Reaction | 23 (92%) | 24 (96%) | 22 (88%) | 25 (100%) |
| Diestrus | 7 (28%) | 2 (8%) | 9 (36%) | 8 (32%) |
| Endometrium, Cyst | | | | 1 (4%) |
| Endometrium, Hyperplasia, Cystic | 1 (4%) | | | |
| Estrus | 10 (40%) | 6 (24%) | 3 (12%) | 3 (12%) |
| Metestrus | 3 (12%) | 10 (40%) | 4 (16%) | 8 (32%) |
| Proestrus | 5 (20%) | 7 (28%) | 9 (36%) | 6 (24%) |
| Vagina | (24) | (25) | (25) | (25) |
| Diestrus | 7 (29%) | 2 (8%) | 9 (36%) | 7 (28%) |
| Estrus | 7 (29%) | 8 (32%) | 7 (28%) | 5 (20%) |
| Keratin Cyst | | | | 1 (4%) |
| Metestrus | 4 (17%) | 10 (40%) | 4 (16%) | 8 (32%) |
| Proestrus | 6 (25%) | 5 (20%) | 5 (20%) | 5 (20%) |
| HEMATOPOIETIC SYSTEM | | | | |
| Bone Marrow | (25) | (1) | (0) | (25) |
| Spleen | (25) | (1) | (0) | (25) |
| Thymus | (25) | (1) | (0) | (25) |
| INTEGUMENTARY SYSTEM | | | | |
| Mammary Gland | (25) | (25) | (25) | (25) |
| Alveolus, Hyperplasia | 11 (44%) | 12 (48%) | 11 (44%) | 12 (48%) |
| Lobules, Hyperplasia | | 4 (16%) | | 3 (12%) |
| Skin | (25) | (1) | (0) | (24) |
| MUSCULOSKELETAL SYSTEM | | | | |
| Bone, Femur | (25) | (1) | (0) | (25) |

NERVOUS SYSTEM

None

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Lab: NCTR

| CD Rat FEMALE | F3 0 PPM | F3/5PPM TO CTL | F3/100PPM TO CTL | F3/500PPM TO CTL |
|-------------------------------------|----------|----------------|------------------|------------------|
| RESPIRATORY SYSTEM None | | | | |
| | | | | |
| SPECIAL SENSES SYSTEM | | | | |
| None | | | | |
| URINARY SYSTEM | | | | |
| Kidney | (25) | (25) | (25) | (25) |
| Bilateral, Pelvis, Dilatation | | | | 1 (4%) |
| Cyst | | 2 (8%) | | |
| Cyst, Multiple | | | 1 (4%) | |
| Inflammation, Chronic Active | | | | 1 (4%) |
| Inflammation, Chronic Active, Focal | | | | 1 (4%) |
| Mineralization | 21 (84%) | 22 (88%) | 22 (88%) | 15 (60%) |
| Pelvis, Unilateral, Dilatation | 1 (4%) | , , | • | . , |
| Renal Tubule, Cyst | 1 (4%) | | | 1 (4%) |
| Renal Tubule, Regeneration | , | 1 (4%) | | . , |

^{**} END OF REPORT **