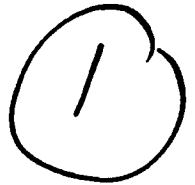




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Ninety Day Subchronic
Oral Toxicity Study of
Pyridostigmine Bromide in Rats

(Volume 2 of 2)
(Part 2)

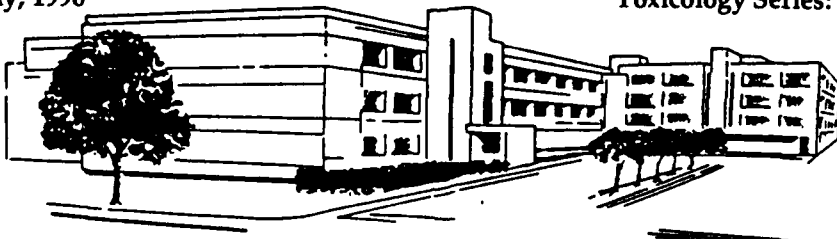
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MAMMALIAN TOXICOLOGY BRANCH
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Toxicology Series: 185



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Ninety Day Subchronic Oral Toxicity Study of Pyridostigmine Bromide in Rats
(Toxicology Series 185)--
Morgan *et al.*

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This research was conducted in compliance with the "Guide for the Care and Use of Laboratory Animals," NIH Publication No. 85-23, as prepared by the Institute of Laboratory Animal Resources, National Research Council.

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Donald G. Corby

Donald G. Corby
COL, MC
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REPORT DOCUMENTATION PAGE

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| | | | |
| | | | |
| 19. ABSTRACT (Continue on reverse if necessary and identify by block number) The 90-day subchronic oral toxicity of pyridostigmine bromide was evaluated in male and female Sprague-Dawley rats. Pyridostigmine was administered in the diet at dose levels of 0, 1, 10, 30, 60, and 90 mg/kg/day for 90 days. The addition of pyridostigmine to the diet resulted in dose-related decreases in plasma cholinesterase and erythrocyte acetylcholinesterase activity ranging from 5% to 76% and from 18% to 95%, respectively. Toxic signs associated with the decrease in cholinesterase activity included muscarinic (perianal, perioral, and periorcular stains or material, diarrhea, and increased salivation) and nicotinic (hypertonia and tremors) effects. Other signs observed with increased incidence among pyridostigmine-treated animals included irritability, aggression, increased startle reflex, inactivity, jumping, hyperactivity, and chewing. The addition of pyridostigmine to the diet at the 60 and 90 mg/kg/day dose levels resulted | | | |
| 20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS | | 21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED | |
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19 (cont.) in transient reduction in food and water consumption, and correspondingly reduced weight gains for the first two weeks of the study period. Blood samples taken at necropsy for hematological and serum chemistry analyses exhibited no significant ($p \leq 0.05$) abnormalities that could be attributed to pyridostigmine dosing, and no morphologic signs of pyridostigmine-induced toxicity were detected during necropsy or subsequent microscopic examination of the tissues. These findings indicate that pyridostigmine bromide, when administered for 90 days to rats at doses that produce up to 75% inhibition of cholinesterase activity, produces little subchronic toxicity other than that attributable to cholinesterase inhibition.

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Appendix O: PATHOLOGYGLP STUDY # 86005
Pathology Report

I. INTRODUCTION:

Study: 90-Day Oral Subchronic Toxicity Test
 Test Compound: Pyridostigmine Bromide
 Animal: *kattus norvegicus*, Sprague-Dawley, 5 weeks, 90
 Males and 90 Females.
 Dosage Groups:

| <u>Group</u> | <u>Daily Dose</u> (mg/kg B.W.) | <u>28-Day Sacrifice</u> (Interim Sacrifice) | <u>90-Day Sacrifice</u> (Final Sacrifice) |
|--------------|-----------------------------------|--|--|
| 1 (Control) | 0 | 5 males, 5 females | 10 males, 10 females |
| 2 | 1 | 5 males, 5 females | 10 males, 10 females |
| 3 | 10 | 5 males, 5 females | 10 males, 10 females |
| 4 | 30 | 5 males, 5 females | 10 males, 10 females |
| 5 | 60 | 5 males, 5 females | 10 males, 10 females |
| 6 | 90 | 5 males, 5 females | 10 males, 10 females |

Reference: SOP-OP-STX-74

II. SUMMARY OF PROCEDURES:

Euthanasia: Sodium Pentobarbital, IP.
 Organ Weights: Brain, Liver, Kidney, Heart, Spleen,
 Adrenal, and Testes or Ovaries.
 Fixative: 10% Neutral Buffered Formalin.
 Histopathology: Routine.
 Clinical Lab: Hematology/Serology.

III. ORGAN WEIGHT FINDINGS: Pathology Tables in the report are organized in sets of four, the first two have data from the final and interim sacrifices, respectively, of the males, and the second pair has the corresponding information from the females. Most tables of final sacrifice data for males have sacrifice dates listed as 1-Feb-87 to 6-Feb-87. Also, in these and other pathology tables, males are reported from Xybion file 86005 and females from Xybion file 2GLP8605. Summaries of absolute organ weight data by dosage group are presented in Pathology Tables 1, 2, 3, and 4. Pathology Tables 5-8 have group summaries of organ weights as a percentage of body weight, and Pathology Tables 9-12 have group summaries of organ weights as a percentage of brain weight. Analysis of variance of group means, and either Dunnett's t-test (for data homogeneous by Bartlett's test) or a modified t-test (for nonhomogeneous data), were performed for each organ from each of the three types of organ weight summary. Of the 84 t-tests performed, significant

Appendix O (cont.): PATHOLOGY

differences, $p < 0.05$, from control values were found for three organs from males and one from females. The high-dose males at interim sacrifice, Pathology Table 2, had (t-test: $0.01 < p < 0.05$) decreased absolute weights of liver ($F=0.080$) and spleen ($F=0.203$), but percent organ-to-body weight and organ-to-brain weight ratios were not significantly altered. The mean terminal body weight was lower than that of the controls at this time, but the difference was not significant. The cause of decreased hepatic and splenic weights was not determined. High-dose males at final sacrifice, Pathology Table 5, had an increase (t-test: $0.01 < p < 0.05$, $F=0.167$) in the percent adrenal weight to body weight ratio, but not in either the absolute organ weight or percent organ to brain weight ratio. Low dose females, Pathology Table 3, had increased absolute ovarian weights (t-test: $0.01 < p < 0.05$, $F=0.098$) but the organ to body weight and organ to brain weight ratios were not increased. Among the 84 analyses of variance conducted, the F statistic was less than 0.05 in only one, with percent organ to body weight ratio, spleens from females ($F=0.004$) at the interim sacrifice. No differences were found by the t-test.

IV. GROSS FINDINGS: Gross findings from the final and interim sacrifices are summarized in Pathology Tables 13-16. All gross findings are interpreted as incidental and unrelated to treatment.

V. MICROSCOPIC FINDINGS: Tissues saved for microscopic examination from all groups were: Adrenal, aorta, femur, brain, sternum, cecum, colon, diaphragm, duodenum, ear, *extensor digitorum longus* muscle, exorbital lacrimal gland, esophagus, eyes with optic nerve, Harderian gland, heart, ileum, jejunum, kidney, liver, lungs, submandibular lymph node, mammary gland, mesenteric lymph node, mandibular/submandibular salivary gland, nose/turbinates, ovaries, pancreas, parotid salivary gland, pituitary, parathyroid, rectum, spinal cord, skin, sublingual salivary gland, skeletal muscle, sciatic nerve, soleus muscle, spleen, stomach, thyroid, thymus, tongue, trachea, urinary bladder, uterus, male accessory sex organs and testes. All tissues were examined in animals from the 0 and 90 mg/kg/day dose groups. Diaphragm, *extensor digitorum longus* muscle, kidney, liver, lung, and soleus muscle were examined in animals from all dose groups. Gross lesions were examined from all animals. Pathology Tables 17-20 list the incidence summary (with percentages) of all microscopic observations of all tissues from the final and interim sacrifices. Based on

Appendix O (cont.): PATHOLOGY

results of Kolmogorov-Smirnov two-tailed analysis (95% confidence level) of microscopic findings, Pathology Tables 21-24, no lesion was significantly more frequent in a treated group than in the control group, from either sex. A similar analysis, not shown, was also made with animals from both final and interim sacrifices grouped together; no significant differences were found. The only neoplastic findings in the study were a renal adenoma observed in Group 5 female #86D0845 and lymphosarcoma in both a Group 2 male, #86D0628, and a Group 5 male, #86D0686. The biological significance of these neoplasms with respect to the experimental treatment is unknown. Pathology Annexes A and B have the correlation of gross and microscopic lesions for all males and females, respectively, with any gross findings other than "No Lesions Recognized". Pathology Annex C contains the Individual Animal Reports with organ weight data and gross and microscopic findings for the males; Pathology Annex D has the corresponding information for the females.

VI. SUMMARY COMMENTS: All lesions observed in these rats were interpreted as incidental findings. No morphologic evidence of toxicity due to the test compound was found.

Charles B. Clifford
for
Robert L. Morrissey
COL, VC, USAR
Diplomate, ACVP
18 January 1989

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MAJ, VC
Diplomate, ACVP
Division of Pathology
18 January 1989

Appendix O (cont.): PATHOLOGY

Glossary of Microscopic Findings

Accessory Sex Organs

--Inflammation, Chronic, Prostate: Aggregates of lymphocytes, perhaps accompanied by a few macrophages are present in the interstitium.

--Inflammation, Acute: Neutrophils are present in the interstitial tissue and in the epithelium and lumens of the glands.

--Atrophy, Prostate: An area of increased fibrous tissue is present in which epithelial cells are diminished in size and number.

--Inflammation, Chronic, Preputial Gland: Aggregates of lymphocytes, perhaps accompanied by a few macrophages are present in the interstitium.

Adrenal

--Cortical Nodular Hypertrophy: A focus of cells with uniformly increased amounts of cytoplasm is present in the cortex.

--Accessory Adrenal: Well-organized, normal-appearing adrenal tissue outside the adrenal capsule.

Diaphragm

--Inflammation, Acute: Neutrophils are present in the interstitium and occasionally within the sarcolemma of myofibers.

--Inflammation, Subacute: The interstitium is infiltrated by lymphocytes, with a few neutrophils and macrophages.

--Inflammation, Chronic: The interstitium is infiltrated by lymphocytes and macrophages.

--Degeneration, Focal: Myofibers on longitudinal and cross section have an increase in eosinophilia, with loss of striation and clumping of the sarcoplasm.

Appendix O (cont.): PATHOLOGY

Exorbital Lacrimal Gland

--Atrophy: Decreased size of cells of the acini. Acinar lumens may appear patent, and acini are separated by increased distance.

--Inflammation, Chronic: Interstitial fibrosis is accompanied by aggregates of macrophages, lymphocytes and/or plasma cells.

Harderian Gland

--Inflammation, Chronic: Interstitial periductal tissue is infiltrated by lymphocytes and macrophages. Fibrosis may be present.

Heart

--Inflammation, Chronic: Myocardial interstitial tissue is infiltrated by lymphocytes and a few macrophages. Fibrosis may be present.

Kidney

--B- Adenoma: Benign, expansile, cortical proliferation of tubular epithelial cells.

--Dilation, Pelvis: Self-explanatory.

--Inflammation, Chronic: Interstitial cortical fibrosis accompanied by a few small aggregates of lymphocytes and/or plasma cells.

--Inflammation, Chronic-Active, Serosa: Infiltration of the capsule and surrounding retroperitoneal tissue by macrophages, lymphocytes and neutrophils, with or without fibrosis.

--Mineralization: Small mineralized foci, often intratubular, are present in the renal papilla.

--Nephropathy: Cortical tubules contain homogeneous, brightly eosinophilic material. Small interstitial aggregates of lymphocytes are occasionally present.

Appendix O (cont.): PATHOLOGY

Liver

--Fatty Change, Focal: Hepatocytes in a single contiguous group contain large discrete round clear vacuoles.

--Inflammation, Chronic, Multifocal: Multifocal infiltration of sinusoids and/or portal areas with a mixed population of mononuclear cells. Some fibrosis and/or slight bile duct hyperplasia may be present in these foci.

--M- Lymphoma / Lymphosarcoma: Infiltration and frequently obliteration of normal parenchymal and stromal components by a relatively homogeneous population of immature lymphocytes. Mitoses may be frequent.

--Necrosis, Focal: A contiguous group of necrotic hepatocytes.

--Vacuolization, Focal: Hepatocytes in a single contiguous group contain numerous irregular and poorly defined clear vacuoles.

Lungs

--Aggregates of Alveolar Macrophages (Histiocytosis): Self-explanatory.

--Inflammation, Acute, Perivascular: Increased numbers of neutrophils in perivascular connective tissue, and occasionally in adjacent alveoli.

--Inflammation, Chronic, Focal: A single aggregate of lymphocytes, plasma cells, and macrophages, without or without fibrosis.

--Inflammation, Chronic, Granulomatous: Focal macrophages, lymphocytes, and giant cells, often surrounding foreign material. Considered to be a reaction to inhaled bedding, etc.

--Inflammation, Chronic, Perivascular: Localized perivascular connective is infiltrated by lymphocytes and plasma cells, with a few macrophages.

Appendix O (cont.): PATHOLOGY

Mesenteric Lymph Node

--M- Lymphoma / Lymphosarcoma: Infiltration and, frequently, obliteration of normal parenchymal and stromal components by a relatively homogeneous population of immature lymphocytes. Mitoses may be frequent.

Mesentery

--Necrosis, Fat: Self-explanatory.

--Inflammation, Acute: Increased numbers of neutrophils are present in extravascular tissue, with or without concomitant edema.

Ovaries

--Para-ovarian Cyst(s): Thin-walled, fluid-filled cyst(s) in the mesovarium, adjacent to the ovary.

Pancreas

--Inflammation, Chronic: Interstitial fibrosis infiltration is accompanied by aggregates of macrophages, lymphocytes and/or plasma cells.

--Acinar (Exocrine) Atrophy: A focal decreased in numbers of exocrine acini result in an aggregation of ducts. Fibrous connective tissue may be locally increased.

Parotid Gland

--Inflammation, Chronic: Interstitial fibrosis is accompanied by aggregates of macrophages, lymphocytes and/or plasma cells.

Pituitary Gland

--Cyst(s): Ciliated or nonciliated, in any portion of the gland.

Soleus Muscle

--Degeneration, Focal: Myofibers on longitudinal and cross section have an increase in eosinophilia, with loss of striation and clumping of the sarcoplasm.

Appendix O (cont.): PATHOLOGY

--Inflammation, Acute: Neutrophils are present in the interstitium and occasionally within the sarcolemma of myofibers.

--Inflammation, Subacute: The interstitium is infiltrated by lymphocytes, with a few neutrophils and macrophages.

--Inflammation, Chronic: The interstitium is infiltrated by lymphocytes and macrophages.

Spleen

--M- Lymphoma/Lymphosarcoma: Infiltration and, frequently, obliteration of normal parenchymal and stromal components by a relatively homogeneous population of immature lymphocytes. Mitoses may be frequent.

--Necrogranuloma: A focus of eosinophilic debris is surrounded by macrophages.

Sublingual Gland

--Hyperplasia, Duct: Self-explanatory.

Submandibular Lymph Node

--Hyperplasia, Lymphoid: The size and number of follicles is increased, accompanied by an increase in secondary follicles and the number of lymphocytes in the paracortex.

--M- Lymphoma / Lymphosarcoma: Infiltration and frequently obliteration of normal parenchymal and stromal components by a relatively homogeneous population of immature lymphocytes. Mitoses may be frequent.

Testes

--Unilateral Organ Atrophy: Self-explanatory.

Thymus

--Hemorrhage, Multifocal: Self-explanatory.

Thyroid

--Cyst: Squamous epithelial-lined cyst.

Appendix O (cont.): PATHOLOGY

--Inflammation, Chronic: Interstitial infiltration of lymphocytes, often forming aggregates. A few macrophages may be present.

Tongue

--Mineralization, Focal: Self-explanatory.

Uterus

--Dilatation of the Uterine Lumen (Hydrometra): Self-explanatory.

--Squamous Metaplasia of the Mucosa: Self-explanatory.

Appendix O (cont.): PATHOLOGY

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LETTERMAN ARMY INSTITUTE OF RESEARCH
DIV OF RES SUPP, PATH SERV GP
PRESIDIO OF SAN FRANCISCO, CA 94129
SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS)
STUDY NUMBER: 86005
REPORT FOR FINAL SACRIFICE
STUDY START DATE: 04-NOV-86
STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: BRAIN

| GROUP | M A L E A N I M A L S | | | | | |
|---------------------|-----------------------|-------|-------|-------|-------|-------|
| | CONTROL | 2 | 3 | 4 | 5 | 6 |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 10 |
| WEIGHT MEANS | 2.00 | 2.07 | 1.97 | 2.17 | 1.98 | 1.97 |
| STANDARD DEVIATIONS | 0.08 | 0.10 | 0.18 | 0.56 | 0.13 | 0.10 |
| GROUP DIFF. @ P=.05 | | 0.091 | 0.144 | 0.407 | 0.108 | 0.092 |
| GROUP DIFF. @ P=.01 | | 0.131 | 0.207 | 0.585 | 0.155 | 0.132 |

CONTROLS FROM GROUP(S): 1 DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST)

ANALYSIS OF VARIANCE: F RATIO = 0.99 DF = 5/ 54 F PROBABILITY = 0.434
NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: LIVER

| GROUP | M A L E A N I M A L S | | | | | |
|---------------------|-----------------------|-------|-------|-------|-------|-------|
| | CONTROL | 2 | 3 | 4 | 5 | 6 |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 10 |
| WEIGHT MEANS | 18.77 | 23.93 | 18.62 | 19.15 | 17.60 | 17.63 |
| STANDARD DEVIATIONS | 2.37 | 16.21 | 2.99 | 2.41 | 2.45 | 2.02 |
| GROUP DIFF. @ P=.05 | | 11.75 | 2.74 | 2.43 | 2.45 | 2.23 |
| GROUP DIFF. @ P=.01 | | 16.90 | 3.94 | 3.49 | 3.52 | 3.21 |

CONTROLS FROM GROUP(S): 1 DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST)

ANALYSIS OF VARIANCE: F RATIO = 1.14 DF = 5/ 54 F PROBABILITY = 0.349
NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS)
 STUDY NUMBER: 86005
 REPORT FOR FINAL SACRIFICE

PRINTED: 06-FEB-89
 PAGE: 2

STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: KIDNEY

| GROUP | CONTROLS FROM GROUP(S): 1 | | | | | M A L E A N I M A L S | | | | |
|---------------------|---------------------------|-------|-------|-------|-------|-----------------------|-------|-------|-------|-------|
| | CONTROL | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| WEIGHT MEANS | 3.18 | 3.34 | 3.24 | 3.23 | 3.23 | 3.23 | 3.23 | 3.23 | 3.23 | 3.19 |
| STANDARD DEVIATIONS | 0.38 | 0.27 | 0.45 | 0.39 | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.36 |
| GROUP DIFF. @ P=.05 | | 0.440 | 0.440 | 0.440 | 0.440 | 0.440 | 0.440 | 0.440 | 0.440 | 0.440 |
| GROUP DIFF. @ P=.01 | | 0.538 | 0.538 | 0.538 | 0.538 | 0.538 | 0.538 | 0.538 | 0.538 | 0.538 |

ANALYSIS OF VARIANCE: F RATIO = 0.23 DF = 5/ 54 F PROBABILITY = 0.946
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: HEART

| GROUP | CONTROLS FROM GROUP(S): 1 | | | | | M A L E A N I M A L S | | | | |
|---------------------|---------------------------|-------|-------|-------|-------|-----------------------|-------|-------|-------|-------|
| | CONTROL | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| WEIGHT MEANS | 1.56 | 1.52 | 1.54 | 1.54 | 1.43 | 1.47 | 1.47 | 1.47 | 1.47 | 1.47 |
| STANDARD DEVIATIONS | 0.16 | 0.14 | 0.11 | 0.15 | 0.12 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 |
| GROUP DIFF. @ P=.05 | | 0.161 | 0.161 | 0.161 | 0.161 | 0.161 | 0.161 | 0.161 | 0.161 | 0.161 |
| GROUP DIFF. @ P=.01 | | 0.197 | 0.197 | 0.197 | 0.197 | 0.197 | 0.197 | 0.197 | 0.197 | 0.197 |

ANALYSIS OF VARIANCE: F RATIO = 1.33 DF = 5/ 54 F PROBABILITY = 0.265
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Pathology Table 1 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS) PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 3
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR FINAL SACRIFICE
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: SPLEEN

| GROUP | M A L E A N I M A L S | | | | | |
|---------------------|---------------------------|------|---|------|------|------|
| | CONTROLS FROM GROUP(S): 1 | | DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST) | | | |
| NUMBER/GROUP | 2 | 3 | 4 | 5 | 6 | |
| CONTROL | 10 | 10 | 10 | 10 | 10 | |
| WEIGHT MEANS | 1.09 | 0.74 | 0.76 | 0.75 | 0.75 | 0.75 |
| STANDARD DEVIATIONS | 1.00 | 0.12 | 0.14 | 0.13 | 0.11 | 0.11 |
| GROUP DIFF. @ P=.05 | 0.72 | 0.12 | 0.13 | 0.12 | 0.11 | 0.11 |
| GROUP DIFF. @ P=.01 | 1.04 | 0.17 | 0.18 | 0.17 | 0.16 | 0.16 |

ANALYSIS OF VARIANCE: F RATIO = 1.09 DF = 5/ 54 F PROBABILITY = 0.375
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: ADRENAL

| GROUP | M A L E A N I M A L S | | | | | |
|---------------------|---------------------------|--------|--|--------|--------|--------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | | |
| NUMBER/GROUP | 2 | 3 | 4 | 5 | 6 | |
| CONTROL | 10 | 10 | 10 | 10 | 10 | |
| WEIGHT MEANS | 0.0555 | 0.0591 | 0.0488 | 0.0485 | 0.0658 | 0.0658 |
| STANDARD DEVIATIONS | 0.0073 | 0.0155 | 0.0136 | 0.0237 | 0.0169 | 0.0169 |
| GROUP DIFF. @ P=.05 | 0.0191 | 0.0191 | 0.0191 | 0.0191 | 0.0191 | 0.0191 |
| GROUP DIFF. @ P=.01 | 0.0233 | 0.0233 | 0.0233 | 0.0233 | 0.0233 | 0.0233 |

ANALYSIS OF VARIANCE: F RATIO = 1.88 DF = 5/ 54 F PROBABILITY = 0.112
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS)
 STUDY NUMBER: 86005
 REPORT FOR FINAL SACRIFICE

PRINTED: 06-FEB-89
 PAGE: 4

STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: OVARIES

| GROUP | M A L E A N I M A L S | | | | | |
|---------------------|---------------------------|--------|--|--------|---------------------------|--------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | CONTROLS FROM GROUP(S): 5 | |
| CONTROL | 0 | 0 | 3 | 0 | 5 | 6 |
| NUMBER/GROUP | 0 | 0 | 0 | 0 | 0 | 0 |
| WEIGHT MEANS | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| STANDARD DEVIATIONS | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| GROUP DIFF. @ P=.05 | 0.0191 | 0.0191 | 0.0191 | 0.0191 | 0.0191 | 0.0191 |
| GROUP DIFF. @ P=.01 | 0.0233 | 0.0233 | 0.0233 | 0.0233 | 0.0233 | 0.0233 |

ANALYSIS OF VARIANCE: F RATIO = 0.00 DF = -1/ 0 F PROBABILITY = 0.112
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: TESTES

| GROUP | M A L E A N I M A L S | | | | | |
|---------------------|---------------------------|-------|--|-------|---------------------------|-------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | CONTROLS FROM GROUP(S): 5 | |
| CONTROL | 10 | 10 | 3 | 4 | 5 | 6 |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 10 |
| WEIGHT MEANS | 3.21 | 3.19 | 3.19 | 3.38 | 3.08 | 3.19 |
| STANDARD DEVIATIONS | 0.25 | 0.50 | 0.27 | 0.37 | 0.26 | 0.18 |
| GROUP DIFF. @ P=.05 | 0.378 | 0.378 | 0.378 | 0.378 | 0.378 | 0.378 |
| GROUP DIFF. @ P=.01 | 0.463 | 0.463 | 0.463 | 0.463 | 0.463 | 0.463 |

ANALYSIS OF VARIANCE: F RATIO = 0.89 DF = 5/ 54 F PROBABILITY = 0.497
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS) PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 1
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR INTERIM SACRIFICE NUMBER 2
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: BRAIN

| GROUP | M A L E A N I M A L S | | | | |
|---------------------|-----------------------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 |
| CONTROL | 5 | 5 | 5 | 5 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 1.95 | 1.97 | 1.95 | 1.88 | 1.94 |
| STANDARD DEVIATIONS | 0.08 | 0.15 | 0.10 | 0.15 | 0.07 |
| GROUP DIFF. @ P=.05 | | 0.190 | 0.190 | 0.190 | 0.190 |
| GROUP DIFF. @ P=.01 | | 0.237 | 0.237 | 0.237 | 0.237 |

DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

ANALYSIS OF VARIANCE: F RATIO = 0.72 DF = 5/ 24 F PROBABILITY = 0.617
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: LIVER

| GROUP | M A L E A N I M A L S | | | | |
|---------------------|-----------------------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 |
| CONTROL | 5 | 5 | 5 | 5 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 17.73 | 16.38 | 17.50 | 16.79 | 15.77 |
| STANDARD DEVIATIONS | 2.90 | 0.95 | 2.58 | 1.32 | 2.23 |
| GROUP DIFF. @ P=.05 | | 3.51 | 3.51 | 3.51 | 3.51* |
| GROUP DIFF. @ P=.01 | | 4.38 | 4.38 | 4.38 | 4.38 |

DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

ANALYSIS OF VARIANCE: F RATIO = 2.26 DF = 5/ 24 F PROBABILITY = 0.080
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS)
 STUDY NUMBER: 86005

PRINTED: 06-FEB-89
 PAGE: 2

REPORT FOR INTERIM SACRIFICE NUMBER 2

STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: KIDNEY

| GROUP | CONTROLS FROM GROUP(S): 1 | | | | | M A L E A N I M A L S DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | | | |
|---------------------|---------------------------|-------|-------|-------|-------|--|-------|-------|-------|-------|
| | CONTROL | 2 | 3 | 4 | 5 | 3 | 4 | 5 | 5 | 6 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 2.84 | 2.94 | 2.92 | 2.84 | 2.66 | 2.92 | 2.84 | 2.66 | 2.51 | 2.51 |
| STANDARD DEVIATIONS | 0.27 | 0.15 | 0.26 | 0.36 | 0.34 | 0.26 | 0.36 | 0.34 | 0.14 | 0.14 |
| GROUP DIFF. @ P=.05 | | 0.465 | 0.465 | 0.465 | 0.465 | 0.465 | 0.465 | 0.465 | 0.465 | 0.465 |
| GROUP DIFF. @ P=.01 | | 0.580 | 0.580 | 0.580 | 0.580 | 0.580 | 0.580 | 0.580 | 0.580 | 0.580 |

ANALYSIS OF VARIANCE: F RATIO = 1.98 DF = 5/ 24 F PROBABILITY = 0.118
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: HEART

| GROUP | CONTROLS FROM GROUP(S): 1 | | | | | M A L E A N I M A L S DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | | | |
|---------------------|---------------------------|-------|-------|-------|-------|--|-------|-------|-------|-------|
| | CONTROL | 2 | 3 | 4 | 5 | 3 | 4 | 5 | 5 | 6 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 1.38 | 1.55 | 1.38 | 1.12 | 1.27 | 1.38 | 1.12 | 1.27 | 1.15 | 1.15 |
| STANDARD DEVIATIONS | 0.21 | 0.34 | 0.10 | 0.35 | 0.23 | 0.10 | 0.35 | 0.23 | 0.13 | 0.13 |
| GROUP DIFF. @ P=.05 | | 0.424 | 0.424 | 0.424 | 0.424 | 0.424 | 0.424 | 0.424 | 0.424 | 0.424 |
| GROUP DIFF. @ P=.01 | | 0.529 | 0.529 | 0.529 | 0.529 | 0.529 | 0.529 | 0.529 | 0.529 | 0.529 |

ANALYSIS OF VARIANCE: F RATIO = 2.22 DF = 5/ 24 F PROBABILITY = 0.085
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS) PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 3
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR INTERIM SACRIFICE NUMBER 2
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: SPLEEN M A L E A N I M A L S

CONTROLS FROM GROUP(S): 1 DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST)

| GROUP | 2 | 3 | 4 | 5 | 6 |
|---------------------|-------|-------|-------|-------|-------|
| CONTROL | | | | | |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 0.743 | 0.696 | 0.958 | 0.695 | 0.592 |
| STANDARD DEVIATIONS | 0.094 | 0.102 | 0.503 | 0.067 | 0.049 |
| GROUP DIFF. @ P=.05 | 0.13 | 0.17 | 0.63 | 0.14 | 0.13* |
| GROUP DIFF. @ P=.01 | 0.22 | 0.28 | 1.04 | 0.23 | 0.22 |

ANALYSIS OF VARIANCE: F RATIO = 1.58 DF = 5/ 24 F PROBABILITY = 0.203
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: ADRENAL M A L E A N I M A L S

CONTROLS FROM GROUP(S): 1 DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST)

| GROUP | 2 | 3 | 4 | 5 | 6 |
|---------------------|-------|-------|-------|-------|-------|
| CONTROL | | | | | |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 0.199 | 0.066 | 0.051 | 0.057 | 0.044 |
| STANDARD DEVIATIONS | 0.329 | 0.004 | 0.022 | 0.007 | 0.013 |
| GROUP DIFF. @ P=.05 | 0.406 | 0.407 | 0.406 | 0.406 | 0.406 |
| GROUP DIFF. @ P=.01 | 0.668 | 0.670 | 0.669 | 0.669 | 0.668 |

ANALYSIS OF VARIANCE: F RATIO = 0.98 DF = 5/ 24 F PROBABILITY = 0.454
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS)
 STUDY NUMBER: 86005

PRINTED: 06-FEB-89
 PAGE: 4

REPORT FOR INTERIM SACRIFICE NUMBER 2

STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: OVARIES

| GROUP | M A L E A N I M A L S | | | | |
|---------------------|---------------------------|--------|--------|--------|--------|
| | CONTROLS FROM GROUP(S): 1 | 2 | 3 | 4 | 5 |
| CONTROL | 0 | 0 | 0 | 0 | 0 |
| NUMBER/GROUP | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| WEIGHT MEANS | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| STANDARD DEVIATIONS | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| GROUP DIFF. @ P=.05 | 0.406 | 0.407 | 0.406 | 0.406 | 0.406 |
| GROUP DIFF. @ P=.01 | 0.668 | 0.670 | 0.670 | 0.669 | 0.668 |

ANALYSIS OF VARIANCE: F RATIO = 0.00 DF = -1/ 0 F PROBABILITY = 0.454
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: TESTES

| GROUP | M A L E A N I M A L S | | | | |
|---------------------|---------------------------|------|------|------|------|
| | CONTROLS FROM GROUP(S): 1 | 2 | 3 | 4 | 5 |
| CONTROL | 5 | 4 | 5 | 5 | 5 |
| NUMBER/GROUP | 2.91 | 2.29 | 3.00 | 3.23 | 2.66 |
| WEIGHT MEANS | 0.24 | 1.50 | 0.11 | 0.26 | 0.12 |
| STANDARD DEVIATIONS | | 2.35 | 0.32 | 0.43 | 0.32 |
| GROUP DIFF. @ P=.05 | | 4.18 | 0.53 | 0.71 | 0.53 |
| GROUP DIFF. @ P=.01 | | | | | |

ANALYSIS OF VARIANCE: F RATIO = 1.41 DF = 5/ 23 F PROBABILITY = 0.258
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Pathology Table 2 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS)
 STUDY NUMBER: 26LP8605
 REPORT FOR FINAL SACRIFICE

STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

PRINTED: 06-FEB-89
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ORGAN: BRAIN

| GROUP | FEMALE ANIMALS | | | | | |
|---------------------|---------------------------|-------|--|-------|-------|-------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | | |
| NUMBER/GROUP | 2 | 3 | 4 | 5 | 6 | |
| WEIGHT MEANS | 10 | 10 | 10 | 10 | 10 | 10 |
| STANDARD DEVIATIONS | 1.81 | 1.84 | 1.92 | 1.83 | 1.87 | 1.93 |
| GROUP DIFF. @ P=.05 | 0.18 | 0.12 | 0.16 | 0.14 | 0.16 | 0.15 |
| GROUP DIFF. @ P=.01 | 0.177 | 0.177 | 0.177 | 0.177 | 0.177 | 0.177 |
| | 0.216 | 0.216 | 0.216 | 0.216 | 0.216 | 0.216 |

ANALYSIS OF VARIANCE: F RATIO = 1.07 DF = 5/ 54 F PROBABILITY = 0.387
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: LIVER

| GROUP | FEMALE ANIMALS | | | | | |
|---------------------|---------------------------|-------|--|-------|-------|-------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | | |
| NUMBER/GROUP | 2 | 3 | 4 | 5 | 6 | |
| WEIGHT MEANS | 10 | 10 | 10 | 10 | 10 | 10 |
| STANDARD DEVIATIONS | 10.76 | 11.78 | 11.94 | 11.42 | 11.62 | 11.23 |
| GROUP DIFF. @ P=.05 | 1.94 | 2.40 | 3.10 | 1.04 | 1.67 | 1.89 |
| GROUP DIFF. @ P=.01 | 2.49 | 2.49 | 2.49 | 2.49 | 2.49 | 2.49 |
| | 3.04 | 3.04 | 3.04 | 3.04 | 3.04 | 3.04 |

ANALYSIS OF VARIANCE: F RATIO = 0.41 DF = 5/ 54 F PROBABILITY = 0.842
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS)
 STUDY NUMBER: 2GLP8605
 REPORT FOR FINAL SACRIFICE

PRINTED: 06-FEB-89
 PAGE: 2

STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ORGAN: KIDNEY

| GROUP | FEMALE ANIMALS | | | | | |
|---------------------|---------------------------|-------|--|-------|-------|-------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | | |
| NUMBER/GROUP | 2 | 3 | 4 | 5 | 6 | |
| WEIGHT MEANS | 10 | 10 | 10 | 10 | 10 | 10 |
| STANDARD DEVIATIONS | 1.98 | 2.11 | 2.22 | 2.14 | 2.12 | 2.18 |
| GROUP DIFF. @ P=.05 | 0.29 | 0.34 | 0.41 | 0.23 | 0.21 | 0.35 |
| GROUP DIFF. @ P=.01 | 0.370 | 0.370 | 0.370 | 0.370 | 0.370 | 0.370 |
| | 0.453 | 0.453 | 0.453 | 0.453 | 0.453 | 0.453 |

ANALYSIS OF VARIANCE: F RATIO = 0.71 DF = 5/ 54 F PROBABILITY = 0.621
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: HEART

| GROUP | FEMALE ANIMALS | | | | | |
|---------------------|---------------------------|-------|---|-------|-------|-------|
| | CONTROLS FROM GROUP(S): 1 | | DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST) | | | |
| NUMBER/GROUP | 2 | 3 | 4 | 5 | 6 | |
| WEIGHT MEANS | 10 | 10 | 10 | 10 | 10 | 10 |
| STANDARD DEVIATIONS | 1.01 | 1.07 | 1.19 | 1.11 | 1.09 | 1.09 |
| GROUP DIFF. @ P=.05 | 0.13 | 0.13 | 0.23 | 0.31 | 0.06 | 0.13 |
| GROUP DIFF. @ P=.01 | 0.134 | 0.134 | 0.187 | 0.241 | 0.102 | 0.130 |
| | 0.193 | 0.193 | 0.270 | 0.347 | 0.147 | 0.186 |

ANALYSIS OF VARIANCE: F RATIO = 0.97 DF = 5/ 54 F PROBABILITY = 0.443
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS) PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 3
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR FINAL SACRIFICE
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ORGAN: SPLEEN

| GROUP | FEMALE ANIMALS | | | | | |
|---------------------|----------------|-------|-------|-------|-------|-------|
| | CONTROL | 2 | 3 | 4 | 5 | 6 |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 10 |
| WEIGHT MEANS | 0.521 | 0.600 | 0.877 | 0.620 | 0.591 | 0.581 |
| STANDARD DEVIATIONS | 0.094 | 0.099 | 1.002 | 0.158 | 0.114 | 0.088 |
| GROUP DIFF. @ P=.05 | | 0.10 | 0.72 | 0.13 | 0.11 | 0.09 |
| GROUP DIFF. @ P=.01 | | 0.14 | 1.04 | 0.19 | 0.15 | 0.13 |

ANALYSIS OF VARIANCE: F RATIO = 0.87 DF = 5/ 54 F PROBABILITY = 0.507
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: ADRENAL

| GROUP | FEMALE ANIMALS | | | | | |
|---------------------|----------------|--------|--------|--------|--------|--------|
| | CONTROL | 2 | 3 | 4 | 5 | 6 |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 10 |
| WEIGHT MEANS | 0.0758 | 0.0861 | 0.0839 | 0.0855 | 0.0864 | 0.0971 |
| STANDARD DEVIATIONS | 0.0146 | 0.0206 | 0.0295 | 0.0224 | 0.0245 | 0.0180 |
| GROUP DIFF. @ P=.05 | | 0.0261 | 0.0261 | 0.0261 | 0.0261 | 0.0261 |
| GROUP DIFF. @ P=.01 | | 0.0319 | 0.0319 | 0.0319 | 0.0319 | 0.0319 |

ANALYSIS OF VARIANCE: F RATIO = 0.95 DF = 5/ 54 F PROBABILITY = 0.458
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS)
 STUDY NUMBER: 2GLP8605
 REPORT FOR FINAL SACRIFICE

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STUDY START DATE: 10-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| ORGAN: OVARIES | FEMALE ANIMALS | | | | | |
|----------------|---------------------------|--------------|--|---------------------|---------------------|--|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | | |
| GROUP | NUMBER/GROUP | WEIGHT MEANS | STANDARD DEVIATIONS | GROUP DIFF. @ P=.05 | GROUP DIFF. @ P=.01 | |
| CONTROL | 10 | 0.115 | 0.025 | | | |
| 2 | 10 | 0.155 | 0.037 | 0.0389* | 0.0476 | |
| 3 | 10 | 0.150 | 0.035 | 0.0389 | 0.0476 | |
| 4 | 10 | 0.140 | 0.024 | 0.0389 | 0.0476 | |
| 5 | 10 | 0.143 | 0.033 | 0.0389 | 0.0476 | |
| 6 | 10 | 0.150 | 0.041 | 0.0389 | 0.0476 | |

ANALYSIS OF VARIANCE: F RATIO = 1.97 DF = 5/ 54 F PROBABILITY = 0.098
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS)

STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

REPORT FOR INTERIM SACRIFICE NUMBER 2
 STUDY NUMBER: 26LP8605
 PRINTED: 06-FEB-89
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ORGAN: BRAIN

| GROUP | FEMALE ANIMALS | | | | |
|---------------------|----------------|-------|-------|-------|-------|
| | CONTROL | 2 | 3 | 4 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 1.69 | 1.84 | 1.86 | 1.79 | 1.82 |
| STANDARD DEVIATIONS | 0.21 | 0.14 | 0.09 | 0.09 | 0.09 |
| GROUP DIFF. @ P=.05 | | 0.219 | 0.219 | 0.219 | 0.219 |
| GROUP DIFF. @ P=.01 | | 0.273 | 0.273 | 0.273 | 0.273 |

CONTROLS FROM GROUP(S): 1 DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

ANALYSIS OF VARIANCE: F RATIO = 1.21 DF = 5/ 24 F PROBABILITY = 0.336
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: LIVER

| GROUP | FEMALE ANIMALS | | | | |
|---------------------|----------------|------|-------|-------|------|
| | CONTROL | 2 | 3 | 4 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 9.64 | 9.90 | 11.20 | 10.60 | 9.84 |
| STANDARD DEVIATIONS | 0.69 | 2.31 | 1.25 | 2.15 | 1.49 |
| GROUP DIFF. @ P=.05 | | 2.79 | 2.79 | 2.79 | 2.79 |
| GROUP DIFF. @ P=.01 | | 3.48 | 3.48 | 3.48 | 3.48 |

CONTROLS FROM GROUP(S): 1 DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

ANALYSIS OF VARIANCE: F RATIO = 0.99 DF = 5/ 24 F PROBABILITY = 0.445
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS)
 STUDY NUMBER: 26LP8605
 REPORT FOR INTERIM SACRIFICE NUMBER 2
 STUDY START DATE: 10-DEC-86

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STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ORGAN: KIDNEY

| GROUP | F E M A L E A N I M A L S | | | | |
|---------------------|---------------------------|-------|-------|-------|-------|
| | 2 | 3 | 4 | 5 | 6 |
| CONTROL | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 1.86 | 1.82 | 1.94 | 1.98 | 1.89 |
| STANDARD DEVIATIONS | 0.21 | 0.20 | 0.11 | 0.26 | 0.17 |
| GROUP DIFF. @ P=.05 | | 0.337 | 0.337 | 0.337 | 0.337 |
| GROUP DIFF. @ P=.01 | | 0.420 | 0.420 | 0.420 | 0.420 |

CONTROLS FROM GROUP(S): 1 DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

ANALYSIS OF VARIANCE: F RATIO = 0.46 DF = 5/ 24 F PROBABILITY = 0.802
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: HEART

| GROUP | F E M A L E A N I M A L S | | | | |
|---------------------|---------------------------|-------|-------|-------|-------|
| | 2 | 3 | 4 | 5 | 6 |
| CONTROL | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 0.91 | 0.92 | 0.98 | 1.01 | 1.00 |
| STANDARD DEVIATIONS | 0.12 | 0.17 | 0.09 | 0.16 | 0.15 |
| GROUP DIFF. @ P=.05 | | 0.246 | 0.246 | 0.246 | 0.246 |
| GROUP DIFF. @ P=.01 | | 0.307 | 0.307 | 0.307 | 0.307 |

CONTROLS FROM GROUP(S): 1 DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

ANALYSIS OF VARIANCE: F RATIO = 0.52 DF = 5/ 24 F PROBABILITY = 0.758
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS) PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 3
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR INTERIM SACRIFICE NUMBER 2
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ORGAN: SPLEEN

| GROUP | FEMALE ANIMALS | | | | |
|---------------------|----------------|-------|-------|-------|-------|
| | CONTROL | 2 | 3 | 4 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 0.582 | 0.564 | 0.618 | 0.568 | 0.562 |
| STANDARD DEVIATIONS | 0.049 | 0.071 | 0.078 | 0.089 | 0.123 |
| GROUP DIFF. @ P=.05 | | 0.145 | 0.145 | 0.145 | 0.145 |
| GROUP DIFF. @ P=.01 | | 0.181 | 0.181 | 0.181 | 0.181 |

ANALYSIS OF VARIANCE: F RATIO = 2.34 DF = 5/ 24 F PROBABILITY = 0.072
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: ADRENAL

| GROUP | FEMALE ANIMALS | | | | |
|---------------------|----------------|--------|--------|--------|--------|
| | CONTROL | 2 | 3 | 4 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 0.0898 | 0.0726 | 0.0748 | 0.0844 | 0.0792 |
| STANDARD DEVIATIONS | 0.0174 | 0.0122 | 0.0127 | 0.0302 | 0.0185 |
| GROUP DIFF. @ P=.05 | | 0.0314 | 0.0314 | 0.0314 | 0.0314 |
| GROUP DIFF. @ P=.01 | | 0.0391 | 0.0391 | 0.0391 | 0.0391 |

ANALYSIS OF VARIANCE: F RATIO = 0.65 DF = 5/ 24 F PROBABILITY = 0.668
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR ABSOLUTE ORGAN WEIGHTS (GMS)
 STUDY NUMBER: 26LP8605
 REPORT FOR INTERIM SACRIFICE NUMBER 2

PRINTED: 06-FEB-89
 PAGE: 4

STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| ORGAN: OVARIES | FEMALE ANIMALS | | | | | |
|---------------------|---------------------------|--------|-------------------------------------|--------|------------------|--------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST | | DUNNETT'S t TEST | |
| GROUP | 2 | 3 | 4 | 5 | 6 | |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 0.160 | 0.176 | 0.157 | 0.166 | 0.143 | 0.161 |
| STANDARD DEVIATIONS | 0.020 | 0.056 | 0.036 | 0.023 | 0.016 | 0.025 |
| GROUP DIFF. @ P=.05 | | 0.0566 | 0.0566 | 0.0566 | 0.0566 | 0.0566 |
| GROUP DIFF. @ P=.01 | | 0.0706 | 0.0706 | 0.0706 | 0.0706 | 0.0706 |

ANALYSIS OF VARIANCE: F RATIO = 0.54 DF = 5/ 24 F PROBABILITY = 0.743
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 1
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR FINAL SACRIFICE
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: BRAIN

| GROUP | M A L E A N I M A L S | | | | | |
|---------------------|---------------------------|-------|---|-------|-------|-------|
| | CONTROLS FROM GROUP(S): 1 | | DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST) | | | |
| NUMBER/GROUP | 2 | 3 | 4 | 5 | 6 | |
| CONTROL | 10 | 10 | 10 | 10 | 10 | |
| WEIGHT MEANS | 0.368 | 0.397 | 0.364 | 0.397 | 0.368 | 0.365 |
| STANDARD DEVIATIONS | 0.036 | 0.035 | 0.046 | 0.105 | 0.036 | 0.036 |
| GROUP DIFF. @ P=.05 | | 0.036 | 0.042 | 0.080 | 0.036 | 0.036 |
| GROUP DIFF. @ P=.01 | | 0.052 | 0.060 | 0.115 | 0.052 | 0.052 |

ANALYSIS OF VARIANCE: F RATIO = 0.82 DF = 5/ 54 F PROBABILITY = 0.546
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: LIVER

| GROUP | M A L E A N I M A L S | | | | | |
|---------------------|---------------------------|------|---|------|------|------|
| | CONTROLS FROM GROUP(S): 1 | | DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST) | | | |
| NUMBER/GROUP | 2 | 3 | 4 | 5 | 6 | |
| CONTROL | 10 | 10 | 10 | 10 | 10 | |
| WEIGHT MEANS | 3.42 | 3.41 | 3.48 | 3.25 | 3.24 | 3.24 |
| STANDARD DEVIATIONS | 0.23 | 0.28 | 0.33 | 0.34 | 0.23 | 0.23 |
| GROUP DIFF. @ P=.05 | | 3.04 | 0.26 | 0.29 | 0.24 | 0.24 |
| GROUP DIFF. @ P=.01 | | 4.37 | 0.37 | 0.42 | 0.34 | 0.34 |

ANALYSIS OF VARIANCE: F RATIO = 1.24 DF = 5/ 54 F PROBABILITY = 0.304
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO
 STUDY NUMBER: 86005
 REPORT FOR FINAL SACRIFICE

PRINTED: 06-FEB-89
 PAGE: 2

STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: KIDNEY

| GROUP | M A L E A N I M A L S | | | | | |
|---------------------|---------------------------|--------|-------------------------------------|--------|------------------|--------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST | | DUNNETT'S t TEST | |
| NUMBER/GROUP | 2 | 3 | 4 | 5 | 6 | |
| WEIGHT MEANS | 10 | 10 | 10 | 10 | 10 | 0.588 |
| STANDARD DEVIATIONS | 0.581 | 0.643 | 0.595 | 0.587 | 0.596 | 0.048 |
| GROUP DIFF. @ P=.05 | 0.046 | 0.098 | 0.049 | 0.050 | 0.043 | 0.0695 |
| GROUP DIFF. @ P=.01 | | 0.0695 | 0.0695 | 0.0695 | 0.0695 | 0.0850 |
| | | 0.0850 | 0.0850 | 0.0850 | 0.0850 | 0.0850 |

ANALYSIS OF VARIANCE: F RATIO = 1.48 DF = 5/ 54 F PROBABILITY = 0.211
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: HEART

| GROUP | M A L E A N I M A L S | | | | | |
|---------------------|---------------------------|--------|---|--------|-------------------|--------|
| | CONTROLS FROM GROUP(S): 1 | | DATA NON-HOMOGENEOUS BY BARTLETT'S TEST | | (MODIFIED t TEST) | |
| NUMBER/GROUP | 2 | 3 | 4 | 5 | 6 | |
| WEIGHT MEANS | 10 | 10 | 10 | 10 | 10 | 0.271 |
| STANDARD DEVIATIONS | 0.286 | 0.291 | 0.285 | 0.280 | 0.265 | 0.020 |
| GROUP DIFF. @ P=.05 | 0.039 | 0.031 | 0.028 | 0.011 | 0.023 | 0.0314 |
| GROUP DIFF. @ P=.01 | | 0.0356 | 0.0346 | 0.0291 | 0.0326 | 0.0452 |
| | | 0.0512 | 0.0498 | 0.0419 | 0.0468 | |

ANALYSIS OF VARIANCE: F RATIO = 1.39 DF = 5/ 54 F PROBABILITY = 0.242
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 3
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR FINAL SACRIFICE
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: SPLEEN M A L E A N I M A L S

| GROUP | CONTROLS FROM GROUP(S): 1 | | | | | DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST) | | | | |
|---------------------|---------------------------|-------|-------|-------|-------|---|-------|-------|-------|-------|
| | CONTROL | 2 | 3 | 4 | 5 | 6 | 10 | 10 | 10 | 10 |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| WEIGHT MEANS | 0.131 | 0.224 | 0.136 | 0.138 | 0.139 | 0.139 | 0.139 | 0.139 | 0.139 | 0.139 |
| STANDARD DEVIATIONS | 0.022 | 0.255 | 0.014 | 0.018 | 0.017 | 0.017 | 0.017 | 0.017 | 0.021 | 0.021 |
| GROUP DIFF. @ P=.05 | | 0.184 | 0.019 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.022 | 0.022 |
| GROUP DIFF. @ P=.01 | | 0.264 | 0.027 | 0.029 | 0.029 | 0.029 | 0.029 | 0.029 | 0.031 | 0.031 |

ANALYSIS OF VARIANCE: F RATIO = 1.15 DF = 5/ 54 F PROBABILITY = 0.344
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: ADRENAL M A L E A N I M A L S

| GROUP | CONTROLS FROM GROUP(S): 1 | | | | | DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST) | | | | |
|---------------------|---------------------------|--------|--------|--------|--------|---|--------|--------|---------|---------|
| | CONTROL | 2 | 3 | 4 | 5 | 6 | 10 | 10 | 10 | 10 |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| WEIGHT MEANS | 0.0091 | 0.0108 | 0.0110 | 0.0089 | 0.0090 | 0.0120 | 0.0090 | 0.0090 | 0.0120 | 0.0120 |
| STANDARD DEVIATIONS | 0.0016 | 0.0041 | 0.0032 | 0.0023 | 0.0048 | 0.0024 | 0.0048 | 0.0048 | 0.0024 | 0.0024 |
| GROUP DIFF. @ P=.05 | | 0.0032 | 0.0026 | 0.0020 | 0.0036 | 0.0021* | 0.0036 | 0.0036 | 0.0021* | 0.0021* |
| GROUP DIFF. @ P=.01 | | 0.0046 | 0.0037 | 0.0029 | 0.0052 | 0.0030 | 0.0052 | 0.0052 | 0.0030 | 0.0030 |

ANALYSIS OF VARIANCE: F RATIO = 1.63 DF = 5/ 54 F PROBABILITY = 0.167
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 4
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR FINAL SACRIFICE
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: OVARIES

| GROUP | M A L E A N I M A L S | | | | |
|---------------------|--------------------------|--------|--------|--------|--------|
| | 1 | 2 | 3 | 4 | 5 |
| CONTROL | 0 | 0 | 0 | 0 | 0 |
| NUMBER/GROUP | 0 | 0 | 0 | 0 | 0 |
| WEIGHT MEANS | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| STANDARD DEVIATIONS | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| GROUP DIFF. @ P=.05 | 0.0032 | 0.0026 | 0.0020 | 0.0036 | 0.0021 |
| GROUP DIFF. @ P=.01 | 0.0046 | 0.0037 | 0.0029 | 0.0052 | 0.0030 |

ANALYSIS OF VARIANCE: F RATIO = 0.00 DF = 1/ 0 F PROBABILITY = 0.167
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: TESTES

| GROUP | M A L E A N I M A L S | | | | | |
|---------------------|--------------------------|-------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| CONTROL | 10 | 10 | 10 | 10 | 10 | 10 |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 10 |
| WEIGHT MEANS | 0.589 | 0.614 | 0.588 | 0.615 | 0.571 | 0.591 |
| STANDARD DEVIATIONS | 0.059 | 0.118 | 0.049 | 0.072 | 0.047 | 0.062 |
| GROUP DIFF. @ P=.05 | 0.095 | 0.095 | 0.055 | 0.066 | 0.054 | 0.061 |
| GROUP DIFF. @ P=.01 | 0.136 | 0.136 | 0.079 | 0.096 | 0.078 | 0.088 |

ANALYSIS OF VARIANCE: F RATIO = 0.55 DF = 5/ 54 F PROBABILITY = 0.737
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO
 STUDY NUMBER: 86005
 REPORT FOR INTERIM SACRIFICE NUMBER 2
 STUDY START DATE: 04-NOV-86

PRINTED: 06-FEB-89
 PAGE: 1

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: BRAIN

| GROUP | M A L E A N I M A L S | | | | |
|---------------------|-----------------------|--------|--------|--------|--------|
| | CONTROL | 2 | 3 | 4 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 0.496 | 0.501 | 0.483 | 0.461 | 0.523 |
| STANDARD DEVIATIONS | 0.035 | 0.043 | 0.053 | 0.051 | 0.036 |
| GROUP DIFF. @ P=.05 | | 0.0749 | 0.0749 | 0.0749 | 0.0749 |
| GROUP DIFF. @ P=.01 | | 0.0934 | 0.0934 | 0.0934 | 0.0934 |

CONTROLS FROM GROUP(S): 1 DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

ANALYSIS OF VARIANCE: F RATIO = 2.07 DF = 5/ 24 F PROBABILITY = 0.103
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: LIVER

| GROUP | M A L E A N I M A L S | | | | |
|---------------------|-----------------------|-------|-------|-------|-------|
| | CONTROL | 2 | 3 | 4 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 4.47 | 4.17 | 4.29 | 4.10 | 4.22 |
| STANDARD DEVIATIONS | 0.51 | 0.34 | 0.27 | 0.45 | 0.30 |
| GROUP DIFF. @ P=.05 | | 0.634 | 0.634 | 0.634 | 0.634 |
| GROUP DIFF. @ P=.01 | | 0.790 | 0.790 | 0.790 | 0.790 |

CONTROLS FROM GROUP(S): 1 DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

ANALYSIS OF VARIANCE: F RATIO = 0.91 DF = 5/ 24 F PROBABILITY = 0.493
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 2
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR INTERIM SACRIFICE NUMBER 2
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 06-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: KIDNEY

| GROUP | M A L E A N I M A L S | | | | |
|---------------------|---------------------------|-------|--|-------|-------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | |
| CONTROL | 2 | 3 | 4 | 5 | 6 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 0.721 | 0.748 | 0.718 | 0.694 | 0.712 |
| STANDARD DEVIATIONS | 0.079 | 0.048 | 0.031 | 0.089 | 0.043 |
| GROUP DIFF. @ P=.05 | | 0.102 | 0.102 | 0.102 | 0.102 |
| GROUP DIFF. @ P=.01 | | 0.128 | 0.128 | 0.128 | 0.128 |

ANALYSIS OF VARIANCE: F RATIO = 0.46 DF = 5/ 24 F PROBABILITY = 0.805
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: HEART

| GROUP | M A L E A N I M A L S | | | | |
|---------------------|---------------------------|-------|--|-------|-------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | |
| CONTROL | 2 | 3 | 4 | 5 | 6 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 0.350 | 0.394 | 0.341 | 0.273 | 0.340 |
| STANDARD DEVIATIONS | 0.045 | 0.088 | 0.028 | 0.084 | 0.042 |
| GROUP DIFF. @ P=.05 | | 0.102 | 0.102 | 0.102 | 0.102 |
| GROUP DIFF. @ P=.01 | | 0.128 | 0.128 | 0.128 | 0.128 |

ANALYSIS OF VARIANCE: F RATIO = 2.19 DF = 5/ 24 F PROBABILITY = 0.088
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 3
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR INTERIM SACRIFICE NUMBER 2
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: SPLEEN M A L E A N I M A L S

| GROUP | CONTROLS FROM GROUP(S): 1 DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST) | | | | |
|---------------------|--|-------|-------|-------|-------|
| | 2 | 3 | 4 | 5 | 6 |
| CONTROL | | | | | |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 0.188 | 0.194 | 0.170 | 0.232 | 0.187 |
| STANDARD DEVIATIONS | 0.018 | 0.007 | 0.012 | 0.115 | 0.009 |
| GROUP DIFF. @ P=.05 | | 0.024 | 0.027 | 0.144 | 0.025 |
| GROUP DIFF. @ P=.01 | | 0.039 | 0.044 | 0.237 | 0.041 |

ANALYSIS OF VARIANCE: F RATIO = 1.07 DF = 5/ 24 F PROBABILITY = 0.401
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: ADRENAL M A L E A N I M A L S

| GROUP | CONTROLS FROM GROUP(S): 1 DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST) | | | | |
|---------------------|--|--------|--------|--------|--------|
| | 2 | 3 | 4 | 5 | 6 |
| CONTROL | | | | | |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 0.0518 | 0.0169 | 0.0123 | 0.0138 | 0.0127 |
| STANDARD DEVIATIONS | 0.0863 | 0.0012 | 0.0045 | 0.0014 | 0.0014 |
| GROUP DIFF. @ P=.05 | | 0.106 | 0.107 | 0.106 | 0.106 |
| GROUP DIFF. @ P=.01 | | 0.175 | 0.176 | 0.175 | 0.176 |

ANALYSIS OF VARIANCE: F RATIO = 0.96 DF = 5/ 24 F PROBABILITY = 0.461
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO
 STUDY NUMBER: 86005
 REPORT FOR INTERIM SACRIFICE NUMBER 2

PRINTED: 06-FEB-89
 PAGE: 4

STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: OVARIES

| GROUP | M A L E A N I M A L S | | | | | |
|---------------------|---------------------------|--------|--|--------|--------|--------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | | |
| NUMBER/GROUP | 0 | 0 | 3 | 0 | 5 | 6 |
| WEIGHT MEANS | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| STANDARD DEVIATIONS | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| GROUP DIFF. @ P=.05 | 0.106 | 0.107 | 0.107 | 0.106 | 0.107 | 0.106 |
| GROUP DIFF. @ P=.01 | 0.175 | 0.175 | 0.175 | 0.175 | 0.176 | 0.175 |

ANALYSIS OF VARIANCE: F RATIO = 0.00 DF = -1/ 0 F PROBABILITY = 0.461
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: TESTES

| GROUP | M A L E A N I M A L S | | | | | |
|---------------------|---------------------------|-------|---|-------|-------|-------|
| | CONTROLS FROM GROUP(S): 1 | | DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST) | | | |
| NUMBER/GROUP | 5 | 2 | 3 | 4 | 5 | 6 |
| WEIGHT MEANS | 0.738 | 0.586 | 0.741 | 0.789 | 0.716 | 0.805 |
| STANDARD DEVIATIONS | 0.060 | 0.384 | 0.061 | 0.073 | 0.039 | 0.074 |
| GROUP DIFF. @ P=.05 | | 0.60 | 0.11 | 0.12 | 0.09 | 0.12 |
| GROUP DIFF. @ P=.01 | | 1.07 | 0.17 | 0.19 | 0.14 | 0.19 |

ANALYSIS OF VARIANCE: F RATIO = 1.15 DF = 5/ 23 F PROBABILITY = 0.363
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Pathology Table 6 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 1
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR FINAL SACRIFICE
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ORGAN: BRAIN

| GROUP | F E M A L E A N I M A L S | | | | | |
|---------------------|--------------------------------|--------|--|--------|------------------|--------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | DUNNETT'S t TEST | |
| NUMBER/GROUP | 2 | 3 | 4 | 5 | 6 | |
| CONTROL | 10 | 10 | 10 | 10 | 10 | |
| WEIGHT MEANS | 0.614 | 0.557 | 0.568 | 0.581 | 0.570 | 0.592 |
| STANDARD DEVIATIONS | 0.070 | 0.070 | 0.070 | 0.048 | 0.058 | 0.045 |
| GROUP DIFF. @ P=.05 | 0.0699 | 0.0699 | 0.0699 | 0.0699 | 0.0699 | 0.0699 |
| GROUP DIFF. @ P=.01 | 0.0855 | 0.0855 | 0.0855 | 0.0855 | 0.0855 | 0.0855 |

ANALYSIS OF VARIANCE: F RATIO = 1.20 DF = 5/ 54 F PROBABILITY = 0.320
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: LIVER

| GROUP | F E M A L E A N I M A L S | | | | | |
|---------------------|--------------------------------|-------|--|-------|------------------|-------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | DUNNETT'S t TEST | |
| NUMBER/GROUP | 2 | 3 | 4 | 5 | 6 | |
| CONTROL | 10 | 10 | 10 | 10 | 10 | |
| WEIGHT MEANS | 3.62 | 3.50 | 3.46 | 3.63 | 3.52 | 3.41 |
| STANDARD DEVIATIONS | 0.50 | 0.36 | 0.57 | 0.40 | 0.29 | 0.38 |
| GROUP DIFF. @ P=.05 | 0.503 | 0.503 | 0.503 | 0.503 | 0.503 | 0.503 |
| GROUP DIFF. @ P=.01 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 |

ANALYSIS OF VARIANCE: F RATIO = 0.41 DF = 5/ 54 F PROBABILITY = 0.838
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO

PRINTED: 06-FEB-89
 PAGE: 2

STUDY NUMBER: 2GLP8605

REPORT FOR FINAL SACRIFICE

STUDY START DATE: 10-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ORGAN: KIDNEY

| GROUP | FEMALE ANIMALS | | | | |
|---------------------|---------------------------|--|--------|--------|--------|
| | CONTROLS FROM GROUP(S): 1 | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | | |
| CONTROL | | | | | |
| 10 | 0.666 | 2 | 3 | 4 | 5 |
| WEIGHT MEANS | 0.066 | 10 | 10 | 10 | 10 |
| STANDARD DEVIATIONS | | 0.628 | 0.651 | 0.680 | 0.645 |
| GROUP DIFF. @ P=.05 | | 0.040 | 0.078 | 0.072 | 0.036 |
| GROUP DIFF. @ P=.01 | | 0.0761 | 0.0761 | 0.0761 | 0.0761 |
| | | 0.0931 | 0.0931 | 0.0931 | 0.0931 |

ANALYSIS OF VARIANCE: F RATIO = 0.79 DF = 5/ 54 F PROBABILITY = 0.561
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: HEART

| GROUP | FEMALE ANIMALS | | | | |
|---------------------|---------------------------|---|-------|-------|-------|
| | CONTROLS FROM GROUP(S): 1 | DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST) | | | |
| CONTROL | | | | | |
| 10 | 0.341 | 2 | 3 | 4 | 5 |
| WEIGHT MEANS | 0.029 | 10 | 10 | 10 | 10 |
| STANDARD DEVIATIONS | | 0.323 | 0.347 | 0.351 | 0.332 |
| GROUP DIFF. @ P=.05 | | 0.039 | 0.041 | 0.095 | 0.021 |
| GROUP DIFF. @ P=.01 | | 0.035 | 0.036 | 0.071 | 0.026 |
| | | 0.050 | 0.052 | 0.102 | 0.037 |

ANALYSIS OF VARIANCE: F RATIO = 0.48 DF = 5/ 54 F PROBABILITY = 0.791
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 26LP8605 PAGE: 3
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR FINAL SACRIFICE
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ORGAN: SPLEEN CONTROLS FROM GROUP(S): 1 DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST)

| GROUP | F E M A L E A N I M A L S | | | | | |
|---------------------|--------------------------------|-------|-------|-------|-------|-------|
| | 2 | 3 | 4 | 5 | 6 | |
| CONTROL | 10 | 10 | 10 | 10 | 10 | |
| NUMBER/GROUP | | | | | | |
| WEIGHT MEANS | 0.181 | 0.248 | 0.196 | 0.179 | 0.177 | 0.177 |
| STANDARD DEVIATIONS | 0.027 | 0.257 | 0.044 | 0.026 | 0.020 | 0.020 |
| GROUP DIFF. @ P=.05 | 0.025 | 0.185 | 0.035 | 0.024 | 0.021 | 0.021 |
| GROUP DIFF. @ P=.01 | 0.036 | 0.266 | 0.051 | 0.035 | 0.030 | 0.030 |

ANALYSIS OF VARIANCE: F RATIO = 0.67 DF = 5/ 54 F PROBABILITY = 0.651
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: ADRENAL CONTROLS FROM GROUP(S): 1 DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

| GROUP | F E M A L E A N I M A L S | | | | | |
|---------------------|--------------------------------|--------|--------|--------|--------|--------|
| | 2 | 3 | 4 | 5 | 6 | |
| CONTROL | 10 | 10 | 10 | 10 | 10 | |
| NUMBER/GROUP | | | | | | |
| WEIGHT MEANS | 0.0259 | 0.0245 | 0.0273 | 0.0261 | 0.0297 | 0.0297 |
| STANDARD DEVIATIONS | 0.0055 | 0.0078 | 0.0074 | 0.0059 | 0.0052 | 0.0052 |
| GROUP DIFF. @ P=.05 | 0.0072 | 0.0072 | 0.0072 | 0.0072 | 0.0072 | 0.0072 |
| GROUP DIFF. @ P=.01 | 0.0088 | 0.0088 | 0.0088 | 0.0088 | 0.0088 | 0.0088 |

ANALYSIS OF VARIANCE: F RATIO = 0.90 DF = 5/ 54 F PROBABILITY = 0.487
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO
 STUDY NUMBER: 2GLP8605
 REPORT FOR FINAL SACRIFICE

PRINTED: 06-FEB-89
 PAGE: 4

STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| ORGAN: OVARIES | F E M A L E A N I M A L S | | | | |
|---------------------|---------------------------|--------|--------|--------|--------|
| | CONTROLS FROM GROUP(S): 1 | 2 | 3 | 4 | 5 |
| NUMBER/GROUP | CONTROL 10 | 10 | 10 | 10 | 10 |
| WEIGHT MEANS | 0.0389 | 0.0465 | 0.0439 | 0.0447 | 0.0436 |
| STANDARD DEVIATIONS | 0.0093 | 0.0092 | 0.0083 | 0.0081 | 0.0097 |
| GROUP DIFF. @ P=.05 | | 0.0112 | 0.0112 | 0.0112 | 0.0112 |
| GROUP DIFF. @ P=.01 | | 0.0137 | 0.0137 | 0.0137 | 0.0137 |

ANALYSIS OF VARIANCE: F RATIO = 0.82 DF = 5/ 54 F PROBABILITY = 0.544
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO
 STUDY NUMBER: 2GLP8605
 REPORT FOR INTERIM SACRIFICE NUMBER 2
 STUDY START DATE: 10-DEC-86

PRINTED: 06-FEB-89
 PAGE: 1

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ORGAN: BRAIN

| GROUP | F E M A L E A N I M A L S | | | | | |
|--------------|---------------------------|--------------|-------------------------------------|---------------------|---------------------|---------------------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST | | DUNNETT'S t TEST | |
| NUMBER/GROUP | WEIGHT MEANS | WEIGHT MEANS | STANDARD DEVIATIONS | STANDARD DEVIATIONS | GROUP DIFF. @ P=.05 | GROUP DIFF. @ P=.01 |
| CONTROL | 5 | 0.674 | 0.079 | 0.697 | 0.632 | 0.723 |
| | 5 | 0.056 | 0.134 | 0.050 | 0.072 | 0.118 |
| | 5 | 0.168 | 0.168 | 0.134 | 0.134 | 0.134 |
| | 5 | 0.168 | 0.168 | 0.168 | 0.168 | 0.168 |

ANALYSIS OF VARIANCE: F RATIO = 0.81 DF = 5/ 24 F PROBABILITY = 0.557
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: LIVER

| GROUP | F E M A L E A N I M A L S | | | | | |
|--------------|---------------------------|--------------|-------------------------------------|---------------------|---------------------|---------------------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST | | DUNNETT'S t TEST | |
| NUMBER/GROUP | WEIGHT MEANS | WEIGHT MEANS | STANDARD DEVIATIONS | STANDARD DEVIATIONS | GROUP DIFF. @ P=.05 | GROUP DIFF. @ P=.01 |
| CONTROL | 5 | 3.84 | 0.20 | 3.70 | 3.70 | 3.57 |
| | 5 | 0.20 | 0.42 | 0.26 | 0.45 | 0.19 |
| | 5 | 0.656 | 0.526 | 0.526 | 0.526 | 0.526 |
| | 5 | 0.656 | 0.656 | 0.656 | 0.656 | 0.656 |

ANALYSIS OF VARIANCE: F RATIO = 2.50 DF = 5/ 24 F PROBABILITY = 0.058
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 2
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR INTERIM SACRIFICE NUMBER 2
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ORGAN: KIDNEY

| GROUP | FEMALE ANIMALS | | | | | |
|---------------------|--|-------|-------|-------|-------|-------|
| | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | | | | |
| NUMBER/GROUP | CONTROLS FROM GROUP(S): 1 | 2 | 3 | 4 | 5 | |
| WEIGHT MEANS | CONTROL | 0.690 | 0.719 | 0.693 | 0.672 | 0.733 |
| STANDARD DEVIATIONS | 5 | 0.058 | 0.057 | 0.035 | 0.029 | 0.077 |
| GROUP DIFF. @ P=.05 | | 0.096 | 0.096 | 0.096 | 0.096 | 0.096 |
| GROUP DIFF. @ P=.01 | | 0.119 | 0.119 | 0.119 | 0.119 | 0.119 |

ANALYSIS OF VARIANCE: F RATIO = 1.20 DF = 5/ 24 F PROBABILITY = 0.339
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: HEART

| GROUP | FEMALE ANIMALS | | | | | |
|---------------------|--|--------|--------|--------|--------|--------|
| | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | | | | |
| NUMBER/GROUP | CONTROLS FROM GROUP(S): 1 | 2 | 3 | 4 | 5 | |
| WEIGHT MEANS | CONTROL | 0.345 | 0.339 | 0.346 | 0.368 | 0.387 |
| STANDARD DEVIATIONS | 5 | 0.037 | 0.051 | 0.019 | 0.046 | 0.061 |
| GROUP DIFF. @ P=.05 | | 0.0801 | 0.0801 | 0.0801 | 0.0801 | 0.0801 |
| GROUP DIFF. @ P=.01 | | 0.0999 | 0.0999 | 0.0999 | 0.0999 | 0.0999 |

ANALYSIS OF VARIANCE: F RATIO = 0.80 DF = 5/ 24 F PROBABILITY = 0.565
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Pathology Table 8 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 3
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR INTERIM SACRIFICE NUMBER 2
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

.....

ORGAN: SPLEEN

F E M A L E A N I M A L S

CONTROLS FROM GROUP(S): 1 DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

| GROUP | 2 | 3 | 4 | 5 | 6 |
|---------------------|-------|--------|--------|--------|--------|
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 0.232 | 0.215 | 0.228 | 0.199 | 0.204 |
| STANDARD DEVIATIONS | 0.018 | 0.036 | 0.015 | 0.021 | 0.038 |
| GROUP DIFF. @ P=.05 | | 0.0496 | 0.0496 | 0.0496 | 0.0496 |
| GROUP DIFF. @ P=.01 | | 0.0619 | 0.0619 | 0.0619 | 0.0619 |

ANALYSIS OF VARIANCE: F RATIO = 4.72 DF = 5/ 24 F PROBABILITY = 0.004
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

.....

ORGAN: ADRENAL

F E M A L E A N I M A L S

CONTROLS FROM GROUP(S): 1 DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

| GROUP | 2 | 3 | 4 | 5 | 6 |
|---------------------|--------|--------|--------|--------|--------|
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 0.0358 | 0.0276 | 0.0279 | 0.0295 | 0.0288 |
| STANDARD DEVIATIONS | 0.0074 | 0.0053 | 0.0057 | 0.0095 | 0.0055 |
| GROUP DIFF. @ P=.05 | | 0.0119 | 0.0119 | 0.0119 | 0.0119 |
| GROUP DIFF. @ P=.01 | | 0.0148 | 0.0148 | 0.0148 | 0.0148 |

ANALYSIS OF VARIANCE: F RATIO = 0.99 DF = 5/ 24 F PROBABILITY = 0.446
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BODY WEIGHT RATIO PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 4
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR INTERIM SACRIFICE NUMBER 2
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| ORGAN: OVARIES | CONTROLS FROM GROUP(S): | | F E M A L E A N I M A L S | | | | | |
|---------------------|-------------------------|--------|------------------------------|--------|--------|--------|--------|--------|
| | 2 | 5 | 3 | 4 | 5 | 5 | 6 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 0.0635 | 0.0694 | 0.0581 | 0.0587 | 0.0525 | 0.0525 | 0.0525 | 0.0626 |
| STANDARD DEVIATIONS | 0.0069 | 0.0291 | 0.0129 | 0.0107 | 0.0065 | 0.0065 | 0.0065 | 0.0096 |
| GROUP DIFF. @ P=.05 | | 0.0370 | 0.0180 | 0.0158 | 0.0117 | 0.0117 | 0.0117 | 0.0146 |
| GROUP DIFF. @ P=.01 | | 0.0609 | 0.0297 | 0.0260 | 0.0193 | 0.0193 | 0.0193 | 0.0241 |

ANALYSIS OF VARIANCE: F RATIO = 0.75 DF = 5/ 24 F PROBABILITY = 0.593
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR % ORGAN TO BRAIN WEIGHT RATIO

STUDY NUMBER: 86005
 REPORT FOR FINAL SACRIFICE
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

PRINTED: 02-FEB-89
 PAGE: 1

ORGAN: BRAIN M A L E A N I M A L S DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

| GROUP | CONTROLS FROM GROUP(S): 1 | | 2 | | 3 | | 4 | | 5 | | 6 | |
|---------------------|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | CONTROL | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| NUMBER/GROUP | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| WEIGHT MEANS | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| STANDARD DEVIATIONS | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| GROUP DIFF. @ P=.05 | | 0.0491 | 0.0402 | 0.0402 | 0.0402 | 0.0402 | 0.0402 | 0.0402 | 0.0402 | 0.0402 | 0.0402 | 0.0402 |
| GROUP DIFF. @ P=.01 | | 0.0491 | 0.0491 | 0.0491 | 0.0491 | 0.0491 | 0.0491 | 0.0491 | 0.0491 | 0.0491 | 0.0491 | 0.0491 |

ANALYSIS OF VARIANCE: F RATIO = 0.00 DF = 5/ 54 F PROBABILITY = 1.000
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: LIVER M A L E A N I M A L S DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST)

| GROUP | CONTROLS FROM GROUP(S): 1 | | 2 | | 3 | | 4 | | 5 | | 6 | |
|---------------------|---------------------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | CONTROL | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| NUMBER/GROUP | 940.62 | 1164.55 | 950.45 | 914.50 | 892.53 | 892.53 | 892.53 | 892.53 | 892.53 | 892.53 | 892.53 | 892.53 |
| WEIGHT MEANS | 126.72 | 814.94 | 151.66 | 182.76 | 142.88 | 142.88 | 142.88 | 142.88 | 142.88 | 142.88 | 142.88 | 142.88 |
| STANDARD DEVIATIONS | | 591.83 | 141.83 | 159.59 | 137.05 | 137.05 | 137.05 | 137.05 | 137.05 | 137.05 | 137.05 | 137.05 |
| GROUP DIFF. @ P=.05 | | 851.18 | 203.98 | 229.53 | 197.11 | 197.11 | 197.11 | 197.11 | 197.11 | 197.11 | 197.11 | 197.11 |
| GROUP DIFF. @ P=.01 | | | | | | | | | | | | |

ANALYSIS OF VARIANCE: F RATIO = 0.83 DF = 5/ 54 F PROBABILITY = 0.533
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR X ORGAN TO BRAIN WEIGHT RATIO
 STUDY NUMBER: 86005
 REPORT FOR FINAL SACRIFICE

PRINTED: 02-FEB-89
 PAGE: 2

STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

| ORGAN: KIDNEY | CONTROLS FROM GROUP(S): | | M A L E A N I M A L S | | | | | |
|---------------------|-------------------------|---------|--------------------------|---------|---------|---------|---------|--|
| | 2 | 3 | 4 | 5 | 6 | 6 | 10 | |
| GROUP | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL | |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| WEIGHT MEANS | 159.42 | 162.00 | 165.98 | 153.21 | 163.32 | 161.99 | 161.99 | |
| STANDARD DEVIATIONS | 19.10 | 17.39 | 25.95 | 24.77 | 19.11 | 18.43 | 18.43 | |
| GROUP DIFF. @ P=.05 | 24.86 | 24.86 | 24.86 | 24.86 | 24.86 | 24.86 | 24.86 | |
| GROUP DIFF. @ P=.01 | 30.41 | 30.41 | 30.41 | 30.41 | 30.41 | 30.41 | 30.41 | |

ANALYSIS OF VARIANCE: F RATIO = 0.43 DF = 5/ 54 F PROBABILITY = 0.827
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

| ORGAN: HEART | CONTROLS FROM GROUP(S): | | M A L E A N I M A L S | | | | | |
|---------------------|-------------------------|---------|--------------------------|---------|---------|---------|---------|--|
| | 2 | 3 | 4 | 5 | 6 | 6 | 10 | |
| GROUP | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL | CONTROL | |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| WEIGHT MEANS | 77.87 | 73.44 | 78.90 | 73.52 | 72.35 | 74.58 | 74.58 | |
| STANDARD DEVIATIONS | 6.54 | 5.20 | 7.59 | 12.72 | 6.81 | 6.18 | 6.18 | |
| GROUP DIFF. @ P=.05 | 9.32 | 9.32 | 9.32 | 9.32 | 9.32 | 9.32 | 9.32 | |
| GROUP DIFF. @ P=.01 | 11.40 | 11.40 | 11.40 | 11.40 | 11.40 | 11.40 | 11.40 | |

ANALYSIS OF VARIANCE: F RATIO = 1.13 DF = 5/ 54 F PROBABILITY = 0.355
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BRAIN WEIGHT RATIO PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 3
 PRESIDJO OF SAN FRANCISCO, CA 94129 REPORT FOR FINAL SACRIFICE
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: SPLEEN M A L E A N I M A L S

| GROUP | CONTROLS FROM GROUP(S): 1 DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST) | | | | | |
|---------------------|--|-------|-------|-------|-------|-------|
| | 2 | 3 | 4 | 5 | 6 | |
| CONTROL | 10 | 10 | 10 | 10 | 10 | 10 |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 10 |
| WEIGHT MEANS | 35.78 | 38.14 | 36.84 | 38.00 | 38.10 | 38.10 |
| STANDARD DEVIATIONS | 5.15 | 7.83 | 9.57 | 5.94 | 5.27 | 5.27 |
| GROUP DIFF. @ P=.05 | 36.28 | 6.73 | 7.80 | 5.64 | 5.29 | 5.29 |
| GROUP DIFF. @ P=.01 | 52.18 | 9.68 | 11.22 | 8.12 | 7.60 | 7.60 |

ANALYSIS OF VARIANCE: F RATIO = 0.91 DF = 5/ 54 F PROBABILITY = 0.485
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: ADRENAL M A L E A N I M A L S

| GROUP | CONTROLS FROM GROUP(S): 1 DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | | | | |
|---------------------|---|------|------|------|------|------|
| | 2 | 3 | 4 | 5 | 6 | |
| CONTROL | 10 | 10 | 10 | 10 | 10 | 10 |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 10 |
| WEIGHT MEANS | 2.47 | 2.70 | 2.33 | 2.46 | 3.35 | 3.35 |
| STANDARD DEVIATIONS | 0.43 | 3.06 | 0.80 | 1.23 | 0.93 | 0.93 |
| GROUP DIFF. @ P=.05 | 1.07 | 1.00 | 1.07 | 1.07 | 1.07 | 1.07 |
| GROUP DIFF. @ P=.01 | 1.31 | 1.31 | 1.31 | 1.31 | 1.31 | 1.31 |

ANALYSIS OF VARIANCE: F RATIO = 1.94 DF = 5/ 54 F PROBABILITY = 0.101
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR % ORGAN TO BRAIN WEIGHT RATIO
 STUDY NUMBER: 86005
 REPORT FOR FINAL SACRIFICE

PRINTED: 02-FEB-89
 PAGE: 4
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

| ORGAN: TESTES | M A L E A N I M A L S | | | | | |
|---------------|---------------------------|--------|---|---------------------|---------------------|--------|
| | CONTROLS FROM GROUP(S): 1 | | DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST) | | | |
| GROUP | NUMBER | MEANS | STANDARD DEVIATIONS | GROUP DIFF. @ P=.05 | GROUP DIFF. @ P=.01 | |
| CONTROL | 10 | 160.95 | 15.28 | | | |
| 2 | 10 | 154.82 | 162.81 | 161.20 | 155.91 | 161.80 |
| 3 | 10 | 26.86 | 13.78 | 30.06 | 13.57 | 9.69 |
| 4 | 10 | 22.17 | 14.77 | 24.19 | 14.66 | 12.98 |
| 5 | 10 | 31.89 | 21.24 | 34.80 | 21.09 | 18.67 |
| 6 | 10 | | | | | |

ANALYSIS OF VARIANCE: F RATIO = 0.29 OF = 5/ 54 F PROBABILITY = 0.916
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR % ORGAN TO BRAIN WEIGHT RATIO
 STUDY NUMBER: 86005
 REPORT FOR INTERIM SACRIFICE NUMBER 2
 STUDY START DATE: 04-NOV-86

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

PRINTED: 06-FEB-89
 PAGE: 1

ORGAN: BRAIN

| GROUP | M A L E A N I M A L S | | | | |
|---------------------|-----------------------|---------|---------|---------|---------|
| | CONTROL | 2 | 3 | 4 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| STANDARD DEVIATIONS | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 |
| GROUP DIFF. @ P=.05 | | 0.0000* | 0.0000* | 0.0000* | 0.0000* |
| GROUP DIFF. @ P=.01 | | 0.0000* | 0.0000* | 0.0000* | 0.0000* |

CONTROLS FROM GROUP(S): 1 DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

ANALYSIS OF VARIANCE: F RATIO = 0.00 DF = 5/ 24 F PROBABILITY = 1.000
 NOTE: * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: LIVER

| GROUP | M A L E A N I M A L S | | | | |
|---------------------|-----------------------|--------|--------|--------|--------|
| | CONTROL | 2 | 3 | 4 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 908.97 | 835.18 | 900.51 | 892.72 | 811.80 |
| STANDARD DEVIATIONS | 153.03 | 84.37 | 142.41 | 56.69 | 94.48 |
| GROUP DIFF. @ P=.05 | | 185.33 | 185.33 | 185.33 | 185.33 |
| GROUP DIFF. @ P=.01 | | 231.06 | 231.06 | 231.06 | 231.06 |

CONTROLS FROM GROUP(S): 1 DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

ANALYSIS OF VARIANCE: F RATIO = 1.71 DF = 5/ 24 F PROBABILITY = 0.170
 NOTE: * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR % ORGAN TO BRAIN WEIGHT RATIO
 STUDY NUMBER: 86005
 REPORT FOR INTERIM SACRIFICE NUMBER 2

PRINTED: 06-FEB-89
 PAGE: 2

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: KIDNEY

| GROUP | M A L E A N I M A L S | | | | |
|---------------------|---------------------------|--------|--------|--------|--------|
| | CONTROLS FROM GROUP(S): 1 | 2 | 3 | 4 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 145.33 | 150.13 | 150.16 | 150.65 | 136.88 |
| STANDARD DEVIATIONS | 10.80 | 15.29 | 15.78 | 11.21 | 14.73 |
| GROUP DIFF. @ P=.05 | | 23.09 | 23.09 | 23.09 | 23.09 |
| GROUP DIFF. @ P=.01 | | 28.79 | 28.79 | 28.79 | 28.79 |

DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

ANALYSIS OF VARIANCE: F RATIO = 1.47 DF = 5/ 24 F PROBABILITY = 0.235
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: HEART

| GROUP | M A L E A N I M A L S | | | | |
|---------------------|---------------------------|-------|-------|-------|-------|
| | CONTROLS FROM GROUP(S): 1 | 2 | 3 | 4 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 71.14 | 78.41 | 70.82 | 60.17 | 65.37 |
| STANDARD DEVIATIONS | 12.24 | 14.46 | 3.40 | 20.64 | 10.42 |
| GROUP DIFF. @ P=.05 | | 22.27 | 22.27 | 22.27 | 22.27 |
| GROUP DIFF. @ P=.01 | | 27.77 | 27.77 | 27.77 | 27.77 |

DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST)

ANALYSIS OF VARIANCE: F RATIO = 1.45 DF = 5/ 24 F PROBABILITY = 0.243
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BRAIN WEIGHT RATIO PRINTED: 06-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 3
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR INTERIM SACRIFICE NUMBER 2
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: SPLEEN

| GROUP | M A L E A N I M A L S | | | | |
|---------------------|-----------------------|-------|-------|-------|-------|
| | 2 | 3 | 4 | 5 | 6 |
| CONTROL | 5 | 5 | 5 | 5 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 38.03 | 35.77 | 50.42 | 35.84 | 31.74 |
| STANDARD DEVIATIONS | 4.65 | 3.07 | 5.48 | 2.78 | 3.03 |
| GROUP DIFF. @ P=.05 | | 6.88 | 8.88 | 6.69 | 6.86 |
| GROUP DIFF. @ P=.01 | | 11.34 | 14.63 | 11.02 | 11.29 |

ANALYSIS OF VARIANCE: F RATIO = 1.85 DF = 5/ 24 F PROBABILITY = 0.141
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: ADRENAL

| GROUP | M A L E A N I M A L S | | | | |
|---------------------|-----------------------|-------|-------|-------|-------|
| | 2 | 3 | 4 | 5 | 6 |
| CONTROL | 5 | 5 | 5 | 5 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 9.92 | 3.37 | 2.60 | 3.03 | 2.37 |
| STANDARD DEVIATIONS | 16.12 | 0.13 | 1.03 | 0.46 | 0.35 |
| GROUP DIFF. @ P=.05 | | 19.89 | 19.93 | 19.90 | 19.90 |
| GROUP DIFF. @ P=.01 | | 32.77 | 32.83 | 32.78 | 32.77 |

ANALYSIS OF VARIANCE: F RATIO = 0.97 DF = 5/ 24 F PROBABILITY = 0.456
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAMLEY

GROUP COMPARISON STATISTICS FOR % ORGAN TO BRAIN WEIGHT RATIO
 STUDY NUMBER: 86005
 REPORT FOR INTERIM SACRIFICE NUMBER 2
 STUDY START DATE: 04-NOV-86

PRINTED: 06-FEB-89
 PAGE: 4

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ORGAN: OVARIES

| GROUP | M A L E A N I M A L S | | | | | |
|--------------|---------------------------|--------------|-------------------------------------|---------------------|---------------------|---------------------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST | | DUNNETT'S t TEST | |
| NUMBER/GROUP | WEIGHT MEANS | WEIGHT MEANS | STANDARD DEVIATIONS | STANDARD DEVIATIONS | GROUP DIFF. @ P=.05 | GROUP DIFF. @ P=.01 |
| CONTROL | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| | 2 | 19.89 | 19.93 | 19.90 | 19.91 | 19.90 |
| | 0 | 32.77 | 32.83 | 32.78 | 32.80 | 32.77 |

ANALYSIS OF VARIANCE: F RATIO = 0.00 DF = -1/ 0 F PROBABILITY = 0.456
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: TESTES

| GROUP | M A L E A N I M A L S | | | | | |
|--------------|---------------------------|--------------|---|---------------------|---------------------|---------------------|
| | CONTROLS FROM GROUP(S): 1 | | DATA NON-HOMOGENEOUS BY BARTLETT'S TEST | | (MODIFIED t TEST) | |
| NUMBER/GROUP | WEIGHT MEANS | WEIGHT MEANS | STANDARD DEVIATIONS | STANDARD DEVIATIONS | GROUP DIFF. @ P=.05 | GROUP DIFF. @ P=.01 |
| CONTROL | 5 | 149.25 | 154.17 | 172.04 | 137.05 | 149.93 |
| | 5 | 13.90 | 10.43 | 15.09 | 2.77 | 14.53 |
| | 2 | 117.08 | 21.45 | 25.32 | 17.50 | 24.82 |
| | 4 | 208.35 | 35.34 | 41.71 | 28.82 | 40.88 |

ANALYSIS OF VARIANCE: F RATIO = 1.99 DF = 5/ 23 F PROBABILITY = 0.117
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BRAIN WEIGHT RATIO PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 1
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR FINAL SACRIFICE
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ORGAN: BRAIN

| GROUP | FEMALE ANIMALS | | | | | |
|---------------------|---------------------------|---------|-------------------------------------|---------|------------------|---------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST | | DUNNETT'S t TEST | |
| CONTROL | 2 | 3 | 4 | 5 | 6 | |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 100.00 |
| WEIGHT MEANS | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 0.00 |
| STANDARD DEVIATIONS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0000* |
| GROUP DIFF. @ P=.05 | 0.0000* | 0.0000* | 0.0000* | 0.0000* | 0.0000* | 0.0000* |
| GROUP DIFF. @ P=.01 | 0.0000* | 0.0000* | 0.0000* | 0.0000* | 0.0000* | 0.0000* |

ANALYSIS OF VARIANCE: F RATIO = 0.00 DF = 5/ 54 F PROBABILITY = 1.000
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: LIVER

| GROUP | FEMALE ANIMALS | | | | | |
|---------------------|---------------------------|--------|-------------------------------------|--------|------------------|--------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST | | DUNNETT'S t TEST | |
| CONTROL | 2 | 3 | 4 | 5 | 6 | |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | 581.66 |
| WEIGHT MEANS | 598.54 | 621.12 | 626.43 | 625.50 | 625.50 | 91.37 |
| STANDARD DEVIATIONS | 128.31 | 145.67 | 53.19 | 100.99 | 100.99 | 126.61 |
| GROUP DIFF. @ P=.05 | 126.61 | 126.61 | 126.61 | 126.61 | 126.61 | 154.88 |
| GROUP DIFF. @ P=.01 | 154.88 | 154.88 | 154.88 | 154.88 | 154.88 | 154.88 |

ANALYSIS OF VARIANCE: F RATIO = 0.37 DF = 5/ 54 F PROBABILITY = 0.869
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARM; INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BRAIN WEIGHT RATIO PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 2
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR FINAL SACRIFICE
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ORGAN: KIDNEY

| GROUP | FEMALE ANIMALS | | | | | |
|---------------------|---------------------------|--------|--|--------|--------|--------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | | |
| NUMBER/GROUP | 2 | 3 | 4 | 5 | 6 | |
| CONTROL | 10 | 10 | 10 | 10 | 10 | |
| WEIGHT MEANS | 109.72 | 113.98 | 116.43 | 117.16 | 114.32 | 112.79 |
| STANDARD DEVIATIONS | 16.80 | 13.53 | 21.30 | 9.31 | 15.03 | 14.75 |
| GROUP DIFF. @ P=.05 | | 18.35 | 18.35 | 18.35 | 18.35 | 18.35 |
| GROUP DIFF. @ P=.01 | | 22.45 | 22.45 | 22.45 | 22.45 | 22.45 |

ANALYSIS OF VARIANCE: F RATIO = 0.30 DF = 5/ 54 F PROBABILITY = 0.913
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: HEART

| GROUP | FEMALE ANIMALS | | | | | |
|---------------------|---------------------------|-------|---|-------|-------|-------|
| | CONTROLS FROM GROUP(S): 1 | | DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST) | | | |
| NUMBER/GROUP | 2 | 3 | 4 | 5 | 6 | |
| CONTROL | 10 | 10 | 10 | 10 | 10 | |
| WEIGHT MEANS | 56.14 | 58.18 | 62.26 | 61.09 | 58.50 | 56.61 |
| STANDARD DEVIATIONS | 7.66 | 5.53 | 12.09 | 18.78 | 4.55 | 4.57 |
| GROUP DIFF. @ P=.05 | | 6.78 | 10.27 | 14.55 | 6.39 | 6.40 |
| GROUP DIFF. @ P=.01 | | 9.75 | 14.78 | 20.93 | 9.19 | 9.20 |

ANALYSIS OF VARIANCE: F RATIO = 0.56 DF = 5/ 54 F PROBABILITY = 0.730
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BRAIN WEIGHT RATIO PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 26LP8605 PAGE: 3
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR FINAL SACRIFICE
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ORGAN: SPLEEN

| GROUP | FEMALE ANIMALS | | | | | |
|---------------------|---------------------------|-------|---|-------|-------|--|
| | CONTROLS FROM GROUP(S): 1 | | DATA NON-HOMOGENEOUS BY BARTLETT'S TEST (MODIFIED t TEST) | | | |
| | 2 | 3 | 4 | 5 | 6 | |
| CONTROL | 10 | 10 | 10 | 10 | 10 | |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | |
| WEIGHT MEANS | 32.63 | 45.61 | 34.08 | 31.63 | 30.09 | |
| STANDARD DEVIATIONS | 5.23 | 50.98 | 9.17 | 5.41 | 4.07 | |
| GROUP DIFF. @ P=.05 | 4.96 | 36.73 | 7.34 | 5.06 | 4.37 | |
| GROUP DIFF. @ P=.01 | 7.14 | 52.82 | 10.55 | 7.28 | 6.28 | |

ANALYSIS OF VARIANCE: F RATIO = 0.80 DF = 5/ 54 F PROBABILITY = 0.557
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: ADRENAL

| GROUP | FEMALE ANIMALS | | | | | |
|---------------------|---------------------------|------|--|------|------|--|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | | |
| | 2 | 3 | 4 | 5 | 6 | |
| CONTROL | 10 | 10 | 10 | 10 | 10 | |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | |
| WEIGHT MEANS | 4.18 | 4.44 | 4.72 | 4.66 | 5.03 | |
| STANDARD DEVIATIONS | 0.73 | 1.01 | 1.34 | 1.44 | 0.80 | |
| GROUP DIFF. @ P=.05 | 1.45 | 1.45 | 1.45 | 1.45 | 1.45 | |
| GROUP DIFF. @ P=.01 | 1.77 | 1.77 | 1.77 | 1.77 | 1.77 | |

ANALYSIS OF VARIANCE: F RATIO = 0.54 DF = 5/ 54 F PROBABILITY = 0.748
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR % ORGAN TO BRAIN WEIGHT RATIO
 STUDY NUMBER: 2GLP8605
 REPORT FOR FINAL SACRIFICE

PRINTED: 02-FEB-89
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STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| ORGAN: OVARIES | FEMALE ANIMALS | | | | | |
|---------------------|---------------------------|-------|--|------|------|------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | | |
| GROUP | 2 | 3 | 4 | 5 | 6 | |
| NUMBER/GROUP | 10 | 10 | 10 | 10 | 10 | |
| WEIGHT MEANS | 6.28 | 8.41 | 7.89 | 7.72 | 7.78 | 7.77 |
| STANDARD DEVIATIONS | 0.97 | 1.78 | 2.00 | 1.35 | 2.12 | 1.93 |
| GROUP DIFF. @ P=.05 | | 2.05* | 2.05 | 2.05 | 2.05 | 2.05 |
| GROUP DIFF. @ P=.01 | | 2.51 | 2.51 | 2.51 | 2.51 | 2.51 |

ANALYSIS OF VARIANCE: F RATIO = 1.69 DF = 5/ 54 F PROBABILITY = 0.152
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH GROUP COMPARISON STATISTICS FOR % ORGAN TO BRAIN WEIGHT RATIO PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 1
 PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR INTERIM SACRIFICE NUMBER 2
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ORGAN: BRAIN

| GROUP | FEMALE ANIMALS | | | | |
|---------------------|----------------|--------|--------|--------|--------|
| | CONTROL | 2 | 3 | 4 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| STANDARD DEVIATIONS | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 |
| GROUP DIFF. @ P=.05 | | 0.0631 | 0.0631 | 0.0631 | 0.0631 |
| GROUP DIFF. @ P=.01 | | 0.0786 | 0.0786 | 0.0786 | 0.0786 |

ANALYSIS OF VARIANCE: F RATIO = 0.00 DF = 5/ 24 F PROBABILITY = 1.000
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: LIVER

| GROUP | FEMALE ANIMALS | | | | |
|---------------------|----------------|--------|--------|--------|--------|
| | CONTROL | 2 | 3 | 4 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 577.21 | 534.65 | 603.05 | 592.84 | 542.72 |
| STANDARD DEVIATIONS | 88.87 | 81.60 | 84.88 | 124.31 | 87.84 |
| GROUP DIFF. @ P=.05 | | 160.42 | 160.42 | 160.42 | 160.42 |
| GROUP DIFF. @ P=.01 | | 200.00 | 200.00 | 200.00 | 200.00 |

ANALYSIS OF VARIANCE: F RATIO = 0.89 DF = 5/ 24 F PROBABILITY = 0.508
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR % ORGAN TO BRAIN WEIGHT RATIO
 STUDY NUMBER: 2GLP8605
 REPORT FOR INTERIM SACRIFICE NUMBER 2
 STUDY START DATE: 10-DEC-86

PRINTED: 02-FEB-89
 PAGE: 2

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ORGAN: KIDNEY

| GROUP | FEMALE ANIMALS | | | | |
|---------------------|---------------------------|--------|--|--------|--------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | |
| CONTROL | 2 | 3 | 4 | 5 | 6 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 99.11 | 104.35 | 110.38 | 101.64 | 102.37 |
| STANDARD DEVIATIONS | 4.24 | 10.95 | 14.29 | 9.94 | 10.93 |
| GROUP DIFF. @ P=.05 | 19.88 | 19.88 | 19.88 | 19.88 | 19.88 |
| GROUP DIFF. @ P=.01 | 24.79 | 24.79 | 24.79 | 24.79 | 24.79 |

ANALYSIS OF VARIANCE: F RATIO = 0.90 DF = 5/ 24 F PROBABILITY = 0.496
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: HEART

| GROUP | FEMALE ANIMALS | | | | |
|---------------------|---------------------------|-------|--|-------|-------|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST (DUNNETT'S t TEST) | | |
| CONTROL | 2 | 3 | 4 | 5 | 6 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 54.05 | 49.78 | 49.71 | 55.75 | 54.33 |
| STANDARD DEVIATIONS | 3.76 | 6.90 | 11.16 | 5.01 | 8.85 |
| GROUP DIFF. @ P=.05 | 14.34 | 14.34 | 14.34 | 14.34 | 14.34 |
| GROUP DIFF. @ P=.01 | 17.87 | 17.87 | 17.87 | 17.87 | 17.87 |

ANALYSIS OF VARIANCE: F RATIO = 0.53 DF = 5/ 24 F PROBABILITY = 0.755
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR % ORGAN TO BRAIN WEIGHT RATIO
 STUDY NUMBER: 26LP8605
 REPORT FOR INTERIM SACRIFICE NUMBER 2
 STUDY START DATE: 10-DEC-86

PRINTED: 02-FEB-89
 PAGE: 3
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ORGAN: SPLEEN

| GROUP | FEMALE ANIMALS | | | | |
|---------------------|---------------------------|-------|-------|-------|-------|
| | CONTROLS FROM GROUP(S): 1 | 2 | 3 | 4 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 34.71 | 30.89 | 33.19 | 31.64 | 30.83 |
| STANDARD DEVIATIONS | 4.15 | 4.78 | 4.49 | 3.89 | 5.88 |
| GROUP DIFF. @ P=.05 | | 8.40 | 8.40 | 8.40 | 8.40 |
| GROUP DIFF. @ P=.01 | | 10.47 | 10.47 | 10.47 | 10.47 |

ANALYSIS OF VARIANCE: F RATIO = 1.91 DF = 5/ 24 F PROBABILITY = 0.129
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

ORGAN: ADRENAL

| GROUP | FEMALE ANIMALS | | | | |
|---------------------|---------------------------|------|------|------|------|
| | CONTROLS FROM GROUP(S): 1 | 2 | 3 | 4 | 5 |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 5.36 | 3.98 | 4.03 | 4.75 | 4.40 |
| STANDARD DEVIATIONS | 1.14 | 0.76 | 0.76 | 1.80 | 1.21 |
| GROUP DIFF. @ P=.05 | | 1.94 | 1.94 | 1.94 | 1.94 |
| GROUP DIFF. @ P=.01 | | 2.41 | 2.41 | 2.41 | 2.41 |

ANALYSIS OF VARIANCE: F RATIO = 1.15 DF = 5/ 24 F PROBABILITY = 0.361
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

GROUP COMPARISON STATISTICS FOR % ORGAN TO BRAIN WEIGHT RATIO

STUDY NUMBER: 2GLP8605
 REPORT FOR INTERIM SACRIFICE NUMBER 2
 STUDY START DATE: 10-DEC-86

PRINTED: 02-FEB-89
 PAGE: 4

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| ORGAN: OVARIES | F E M A L E A M I M A L S | | | | | |
|---------------------|---------------------------|------|-------------------------------------|------|------------------|---|
| | CONTROLS FROM GROUP(S): 1 | | DATA HOMOGENEOUS BY BARTLETT'S TEST | | DUNNETT'S t TEST | |
| GROUP | 2 | 3 | 4 | 5 | 6 | |
| NUMBER/GROUP | 5 | 5 | 5 | 5 | 5 | 5 |
| WEIGHT MEANS | 9.59 | 8.50 | 9.29 | 7.91 | 8.74 | |
| STANDARD DEVIATIONS | 1.93 | 2.35 | 1.59 | 0.88 | 1.33 | |
| GROUP DIFF. @ P=.05 | 3.64 | 3.64 | 3.64 | 3.64 | 3.64 | |
| GROUP DIFF. @ P=.01 | 4.54 | 4.54 | 4.54 | 4.54 | 4.54 | |

ANALYSIS OF VARIANCE: F RATIO = 0.57 DF = 5/ 24 F PROBABILITY = 0.720
 NOTE: A * INDICATES GROUP MEAN IS SIGNIFICANTLY DIFFERENT FROM CONTROL AT LEVEL OF SIGNIFICANCE SHOWN.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

INCIDENCE SUMMARY REPORT FOR GROSS NECROPSY OBSERVATIONS
 STUDY NUMBER: 86005
 REPORT FOR FINAL SACRIFICE

STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

PRINTED: 08-DEC-88
 PAGE: 1

NOTE: CTLs = CONTROLS ANIMAL SEX:
 FROM GROUP(S): 1 GROUP:
 NO. IN GROUP:

| | CTLs | 2 | 3 | 4 | 5 | 6 |
|--------------------------------|------|---|----|----|---|---|
| WHOLE BODY | | | | | | |
| NO GROSS LESIONS RECOGNIZED | 9 | 8 | 10 | 10 | 9 | 9 |
| TOTAL: | 9 | 8 | 10 | 10 | 9 | 9 |
| | | | | | | |
| LIVER | | | | | | |
| ABNORMAL COLOR | 1 | 0 | 0 | 0 | 0 | 0 |
| ENLARGED | 0 | 1 | 0 | 0 | 0 | 0 |
| DISSEMINATED FOCI | 0 | 1 | 0 | 0 | 0 | 0 |
| TOTAL: | 1 | 2 | 0 | 0 | 0 | 0 |
| | | | | | | |
| LYMPH NODES | | | | | | |
| HEMORRHAGE(S) | 0 | 1 | 0 | 0 | 0 | 0 |
| ENLARGED | 0 | 0 | 0 | 0 | 1 | 0 |
| TOTAL: | 0 | 1 | 0 | 0 | 1 | 0 |
| | | | | | | |
| SPLEEN | | | | | | |
| ENLARGED (SPLENOHEGALY) | 0 | 1 | 0 | 0 | 0 | 0 |
| TOTAL: | 0 | 1 | 0 | 0 | 0 | 0 |
| | | | | | | |
| TESTES | | | | | | |
| ATROPHIC / SMALL, UNILATERALLY | 0 | 1 | 0 | 0 | 0 | 0 |
| TOTAL: | 0 | 1 | 0 | 0 | 0 | 0 |

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

INCIDENCE SUMMARY REPORT FOR GROSS NECROPSY OBSERVATIONS
 STUDY NUMBER: 86005
 REPORT FOR INTERIM SACRIFICE NUMBER 2

PRINTED: 08-DEC-88
 PAGE: 1

STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTE: CTLS = CONTROLS ANIMAL SEX:
 FROM GROUP(S): 1 GROUP:
 NO. IN GROUP:

..... MALES

| | | | | | |
|------|---|---|---|---|---|
| CTLS | 2 | 3 | 4 | 5 | 6 |
| | 5 | 5 | 5 | 5 | 5 |

WHOLE BODY

NO GROSS LESIONS RECOGNIZED. 5 5 5 5 5 5
 TOTAL: 5 5 5 5 5 5

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY REPORT FOR GROSS NECROPSY OBSERVATIONS PRINTED: 08-DEC-88
DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 1
PRESIDIO OF SAN FRANCISCO, CA 94129 REPORT FOR FINAL SACRIFICE
SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

NOTE: CTLS = CONTROLS ANIMAL SEX: --- FEMALES
FROM GROUP(S): 1 GROUP: CTLS 2 3 4 5 6
NO. IN GROUP: 10 10 10 10 10 10

WHOLE BODY
NO GROSS LESIONS RECOGNIZED. 9 9 9 9 10 10 9
TOTAL: 9 9 9 9 10 10 9

ADRENAL
GROWTH(S) / MASSES) 0 1 0 0 0 0
TOTAL: 0 1 0 0 0 0

LIVER
ABNORMAL COLOR 1 0 0 0 0 0
TOTAL: 1 0 0 0 0 0

SKIN
ALOPECIA 0 0 0 0 0 1
TOTAL: 0 0 0 0 0 1

SPLEEN
ENLARGED (SPLENOMEGALY) 0 0 1 0 0 0
FIBROUS ADHESION(S) 0 0 1 0 0 0
TOTAL: 0 0 2 0 0 0

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

INCIDENCE SUMMARY REPORT FOR GROSS NECROPSY OBSERVATIONS
 STUDY NUMBER: 2GLP8605
 REPORT FOR INTERIM SACRIFICE NUMBER 2
 STUDY START DATE: 10-DEC-86

PRINTED: 08-DEC-88
 PAGE: 1
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

NOTE: CTLS = CONTROLS FROM GROUP(S): 1 ANIMAL SEX: CTLS 2 3 4 5 6
 GROUP: NO. IN GROUP: 5 5 5 5 5

.....
 WHOLE BODY
 NO GROSS LESIONS RECOGNIZED. 5 4 5 5 5 4
 TOTAL: 5 4 5 5 5 4

OVARIES
 PARA-OVARIAN CYST(S) 0 1 0 0 0 0
 TOTAL: 0 1 0 0 0 0

SKIN
 ALOPECIA 0 0 0 0 0 1
 TOTAL: 0 0 0 0 0 1

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: B6005 PAGE: 1
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY
 PATHOLOGIST(S): WALKER, HARRY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = ALL DEAD FROM 01-FEB-87 TO 06-FEB-87
 CTLS = CONTROLS FROM GROUP(S): 1
 ANIMAL SEX: A N I M A L S A F F E C T E D
 CTLS 2 3 4 5 6
 10 10 10 10 10 10
 ... M A L E S ...

T I S S U E S W I T H F I N D I N G S

ACCESSORY SEX OR NUMBER EXAMINED:
 -INFLAMMATION,CHRONIC,PROSTATE

-INFLAMMATION,ACUTE

-ATROPHY,PROSTATE

-INFLAMMATION,CHRONIC,PREPUTIAL GLAND

ADRENAL NUMBER EXAMINED:

AORTA NUMBER EXAMINED:

BONE, FEMUR NUMBER EXAMINED:

BRAIN NUMBER EXAMINED:

BONE, STERNUM NUMBER EXAMINED:

CECUM NUMBER EXAMINED:

COLON NUMBER EXAMINED:

DIAPHRAGM NUMBER EXAMINED:

-INFLAMMATION,SUBACUTE

-INFLAMMATION,ACUTE

-INFLAMMATION,CHRONIC

-DEGENERATION,FOCAL

| | | | | | | |
|-----|----|----|-----|----|-----|-----|
| 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| 40% | 0% | 0% | 0% | 0% | 0% | 40% |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0% | 0% | 0% | 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 |
| 0% | 0% | 0% | 0% | 0% | 0% | 10% |
| 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 0% | 0% | 0% | 10% | 0% | 10% | 0% |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0% | 0% | 0% | 0% | 0% | 0% | 0% |

Pathology Table 17

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(ALL FINDING)
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY
 PATHOLOGIST(S): WALKER, HARRY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

Appendix O (cont.): **PATHOLOGY**
 PRINTED: 02-FEB-89
 PAGE: 2

NOTES: ANIMALS = ALL DEAD FROM 01-FEB-87 TO 06-FEB-87
 CTLs = CONTROLS FROM GROUP(S): 1

T I S S U E S W I T H F I N D I N G S

.. A N I M A L S A F F E C T E D ..
 .. M A L E S ..
 CTLs 2 3 4 5 6
 10 10 10 10 10

| | | | | | | | |
|------------------------|------------------|-----|-----|-----|-----|-----|-----|
| DUODENUM | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 10 |
| EAR | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 10 |
| EX DIGITORUM LON | NUMBER EXAMINED: | 9 | 10 | 10 | 10 | 10 | 10 |
| EXORBITAL LACRIM | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 10 |
| -INFLAMMATION,CHRONIC | | 5 | 0 | 0 | 0 | 0 | 5 |
| | | 50% | 0% | 0% | 0% | 0% | 50% |
| -ATROPHY | | 0 | 0 | 0 | 0 | 0 | 1 |
| | | 0% | 0% | 0% | 0% | 0% | 10% |
| ESOPHAGUS | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 10 |
| EYES & OPTIC N. | NUMBER EXAMINED: | 9 | 0 | 0 | 0 | 0 | 10 |
| MADERIAN GLAND | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 10 |
| -INFLAMMATION,CHRONIC | | 2 | 0 | 0 | 0 | 0 | 0 |
| | | 20% | 0% | 0% | 0% | 0% | 0% |
| HEART | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 10 |
| -INFLAMMATION,CHRONIC | | 1 | 0 | 0 | 0 | 0 | 3 |
| | | 10% | 0% | 0% | 0% | 0% | 30% |
| ILEUM | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 10 |
| JEJUNUM | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 10 |
| KIDNEY | NUMBER EXAMINED: | 10 | 10 | 10 | 10 | 10 | 10 |
| -NEPHROPATHY | | 1 | 2 | 1 | 2 | 2 | 0 |
| | | 10% | 20% | 10% | 20% | 20% | 0% |
| -INFLAMMATION,CHRONIC | | 0 | 1 | 1 | 0 | 0 | 1 |
| | | 0% | 10% | 10% | 0% | 0% | 10% |
| -DILATION, PELVIS | | 0 | 1 | 0 | 0 | 1 | 0 |
| | | 0% | 10% | 0% | 0% | 10% | 0% |

Pathology Table 17 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 3
 PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = ALL DEAD FROM 01-FEB-87 TO 06-FEB-87
 CTLs = CONTROLS FROM GROUP(S): 1

T I S U E S W I T H F I N D I N G S A N I M A L S A F F E C T E D ..
 D O S A G E G R O U P : M A L E S ..
 N O . I N G R O U P : 2 3 4 5 6
 10 10 10 10 10 10

L I V E R N U M B E R E X A M I N E D :
 - I N F L A M M A T I O N , C H R O N I C , M U L T I F O C A L

- M - L Y M P H O M A / L Y M P H O S A R C O M A

- N E C R O S I S , F O C A L

L U N G S N U M B E R E X A M I N E D :
 - I N F L A M M A T I O N , C H R O N I C , P E R I V A S C U L A R

- I N F L A M M A T I O N , C H R O N I C , F O C A L

- I N F L A M M A T I O N , A C U T E , P E R I V A S C U L A R

M E S E N T E R Y N U M B E R E X A M I N E D :
 - N E C R O S I S , F A T

- I N F L A M M A T I O N , A C U T E

M A M M A R Y G L A N D N U M B E R E X A M I N E D :
 M E S E N T E R I C L Y M P H

- M - L Y M P H O M A / L Y M P H O S A R C O M A

M A N D I B U L A R G L N D N U M B E R E X A M I N E D :
 N O S E / T U R B I N A T E S N U M B E R E X A M I N E D :

Pathology Table 17 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 4
 PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = ALL DEAD FROM 01-FEB-87 TO 06-FEB-87 ANIMAL SEX:
 CTLs = CONTROLS FROM GROUP(S): 1 DOSAGE GROUP:
 NO. IN GROUP:

| T I S S U E S | W I T H | F I N D I N G S | A N I M A L S | A F F E C T E D |
|---------------|---------|-----------------|---------------|-----------------|
| | | | 2 | 3 |
| | | | 10 | 10 |
| | | | 4 | 5 |
| | | | 6 | 10 |

| PANCREAS | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 10 |
|------------------------------|------------------|------|----|----|----|------|-----|
| -INFLAMMATION, CHRONIC | | 5 | 0 | 0 | 0 | 0 | 2 |
| | | 50% | 0% | 0% | 0% | 0% | 20% |
| -ACINAR (EXOCRINE) ATROPHY | | 1 | 0 | 0 | 0 | 0 | 3 |
| | | 10% | 0% | 0% | 0% | 0% | 30% |
| PAROTID GLAND | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 10 |
| -INFLAMMATION, CHRONIC | | 0 | 0 | 0 | 0 | 0 | 1 |
| | | 0% | 0% | 0% | 0% | 0% | 10% |
| PITUITARY GLAND | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 8 |
| PARATHYROID | NUMBER EXAMINED: | 9 | 0 | 0 | 0 | 0 | 9 |
| RECTUM | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 9 |
| SPINAL CORD | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 10 |
| SUBMANDIBULAR LN | NUMBER EXAMINED: | 1 | 0 | 0 | 0 | 1 | 0 |
| -HYPERPLASIA, LYMPHOID | | 1 | 0 | 0 | 0 | 0 | 0 |
| | | 100% | 0% | 0% | 0% | 0% | 0% |
| -M. LYMPHOMA / LYMPHOSARCOMA | | 0 | 0 | 0 | 0 | 1 | 0 |
| | | 0% | 0% | 0% | 0% | 100% | 0% |
| SKIN | NUMBER EXAMINED: | 9 | 0 | 0 | 0 | 0 | 8 |
| SUB-LINGUAL GLND | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 10 |
| -HYPERPLASIA, DUCT | | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0% | 0% | 0% | 0% | 0% | 0% |
| SKELETAL MUSCLE | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 9 |
| SCIATIC NERVE | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 9 |

Pathology Table 17 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 5
 PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = ALL DEAD FROM 01-FEB-87 TO 06-FEB-87 -- ANIMALS AFFECTED --
 CTLS = CONTROLS FROM GROUP(S): 1 ANIMAL SEX: MALES
 DOSAGE GROUP: CTLS 2 3 4 5 6
 NO. IN GROUP: 10 10 10 10 10 10

| T I S S U E S | W I T H | F I N D I N G S | NUMBER EXAMINED: | NUMBER EXAMINED: |
|------------------------------|---------|-----------------|------------------------|--------------------|
| SOLEUS | | | 10 10 10 10 10 10 | 10 10 10 10 10 10 |
| -INFLAMMATION,CHRONIC | | | 3 3 3 5 1 2 | 0 0 0 0 0 0 |
| | | | 30% 30% 50% 10% 20% 0% | 0% 0% 0% 0% 0% 0% |
| -INFLAMMATION,ACUTE | | | 1 0 0 0 0 0 | 0 0 0 0 0 0 |
| | | | 10% 0% 0% 0% 0% 0% | 0% 0% 0% 0% 0% 0% |
| -INFLAMMATION,SUBACUTE | | | 0 1 0 1 0 0 | 0 0 0 0 0 0 |
| | | | 0% 10% 0% 10% 0% 0% | 0% 0% 0% 0% 0% 0% |
| -DEGENERATION,FOCAL | | | 0 0 0 0 0 0 | 0 0 0 0 0 0 |
| | | | 0% 0% 0% 0% 0% 0% | 0% 0% 0% 0% 0% 0% |
| SPLEEN | | | 10 1 0 0 0 10 | 10 1 0 0 0 10 |
| -M- LYMPHOMA / LYMPHOSARCOMA | | | 0 1 0 0 0 0 | 0 0 0 0 0 0 |
| | | | 0% 100% 0% 0% 0% 0% | 0% 0% 0% 0% 0% 0% |
| STOMACH | | | 10 0 0 0 0 10 | 10 0 0 0 0 10 |
| TESTES | | | 10 1 0 0 0 10 | 10 1 0 0 0 10 |
| -UNILATERAL ORGAN ATROPHY | | | 0 1 0 0 0 0 | 0 0 0 0 0 0 |
| | | | 0% 100% 0% 0% 0% 0% | 0% 0% 0% 0% 0% 0% |
| THYROID GLANDS | | | 10 0 0 0 0 9 | 10 0 0 0 0 9 |
| -CYST | | | 3 0 0 0 0 1 | 3 0 0 0 0 1 |
| | | | 30% 0% 0% 0% 0% 11% | 0% 0% 0% 0% 0% 11% |
| THYMUS | | | 9 0 0 0 0 9 | 9 0 0 0 0 9 |
| -HEMORRHAGE,MULTIFOCAL | | | 2 0 0 0 0 3 | 2 0 0 0 0 3 |
| | | | 22% 0% 0% 0% 0% 33% | 0% 0% 0% 0% 0% 33% |
| TONGUE | | | 10 0 0 0 0 9 | 10 0 0 0 0 9 |
| TRACHEA | | | 10 0 0 0 0 10 | 10 0 0 0 0 10 |

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 6
 PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = ALL DEAD FROM 01-FEB-87 TO 06-FEB-87
 CTLS = CONTROLS FROM GROUP(S): 1
 .. ANIMALS AFFECTED ..
 ANIMAL SEX: CTLS 2 3 4 5 6
 DOSAGE GROUP: 10 10 10 10 10 10
 NO. IN GROUP: 10 0 0 0 0 10
 T I S S U E S W I T H F I N D I N G S
 URINARY BLADDER

Pathology Table 17 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 1
 PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = INTERIM SACRIFICE 2
 CTLS = CONTROLS FROM GROUP(S): 1

ANIMAL SEX: ANIMAL SEX: 5 0 0 0 0 5
 DOSAGE GROUP: 0 0 0 0 0 1
 NO. IN GROUP: 0% 0% 0% 0% 0% 20%

CTLS 2 3 4 5 6
 5 5 5 5 5

MALES
 .. ANIMALS AFFECTED ..

T I S S U E S W I T H F I N D I N G S

ACCESSORY SEX OR

-INFLAMMATION,ACUTE

-ATROPHY, PROSTATE

-INFLAMMATION,CHRONIC,PREPUTIAL GLAND

ADRENAL

AORTA

BONE, FEMUR

BRAIN

BONE, STERNUM

CECUM

COLON

DIAPHRAGM

-INFLAMMATION, SUBACUTE

-INFLAMMATION,ACUTE

-INFLAMMATION,CHRONIC

-DEGENERATION, FOCAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 2
 PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = INTERIM SACRIFICE 2 ... ANIMALS AFFECTED ..
 CTLs = CONTROLS FROM GROUP(S): 1 ANIMAL SEX: MALES ..

T I S S U E S W I T H F I N D I N G S D O S A G E G R O U P : N O . I N G R O U P :
 CTLs 2 3 4 5 6
 5 5 5 5 5

| Tissue | Number Examined | Number with Finding | % |
|------------------------|-----------------|---------------------|------|
| DUODENUM | 5 | 0 | 0% |
| EAR | 5 | 0 | 0% |
| EX DIGITORUM LON | 5 | 5 | 100% |
| EXORBITAL LACRIM | 5 | 0 | 0% |
| -INFLAMMATION, CHRONIC | 2 | 0 | 0% |
| -ATROPHY | 1 | 0 | 0% |
| ESOPHAGUS | 5 | 0 | 0% |
| EYES & OPTIC N. | 1 | 0 | 0% |
| HARDERIAN GLAND | 5 | 0 | 0% |
| -INFLAMMATION, CHRONIC | 1 | 0 | 0% |
| HEART | 5 | 0 | 0% |
| -INFLAMMATION, CHRONIC | 0 | 0 | 0% |
| ILEUM | 5 | 0 | 0% |
| JEJUNUM | 5 | 0 | 0% |
| KIDNEY | 5 | 5 | 100% |
| -NEPHROPATHY | 0 | 0 | 0% |
| -INFLAMMATION, CHRONIC | 1 | 0 | 0% |
| -DILATION, PELVIS | 0 | 0 | 0% |

Pathology Table 18 (cont.)

Appendix O (cont.): PATHOLOGY

PRINTED: 02-FEB-89
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LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(ALL FINDING)
DIV OF RES SUPP, PATII SERV GP
PRESIDIO OF SAN FRANCISCO, CA 94129
SPECIES: RAT/SPRAGUE-DAWLEY
STUDY START DATE: 04-NOV-86
STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
STUDY NUMBER: 86005
PATHOLOGIST(S): WALKER, HARRY

NOTES: ANIMALS = INTERIM SACRIFICE 2
CTLS = CONTROLS FROM GROUP(S): 1

ANIMAL SEX: MALES
DOSAGE GROUP: CTLS 2 3 4 5 6
NO. IN GROUP: 5 5 5 5 5

T I S S U E S W I T H F I N D I N G S N U M B E R E X A M I N E D
L I V E R N U M B E R E X A M I N E D

-M- LYMPHOMA / LYMPHOSARCOMA

- NECROSIS, FOCAL

L U N G S N U M B E R E X A M I N E D
- INFLAMMATION, CHRONIC, PERIVASCULAR

- INFLAMMATION, CHRONIC, FOCAL

- INFLAMMATION, ACUTE, PERIVASCULAR

M E S E N T E R Y N U M B E R E X A M I N E D
- NECROSIS, FAT

- INFLAMMATION, ACUTE

M A M M A R Y G L A N D N U M B E R E X A M I N E D
M E S E N T E R I C L Y M P H N U M B E R E X A M I N E D

-M- LYMPHOMA / LYMPHOSARCOMA

M A N D I B U L A R G L A N D N U M B E R E X A M I N E D
N O S E / T U R B I N A T E S N U M B E R E X A M I N E D

Pathology Table 18 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 4
 PRESIDIO OF CARLETON, CA 91229 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = INTERIM SACRIFICE 2
 CTLS = CONTROLS FROM GROUP(S): 1 ANIMAL SEX: ... ANIMALS AFFECTED ...
 CTLS WITH FINDINGS NO. IN GROUP: ... MALES ...

| TISSUES WITH FINDINGS | CTLS | 2 | 3 | 4 | 5 | 6 |
|------------------------------|------|----|----|----|----|------|
| PANCREAS | 5 | 0 | 0 | 0 | 0 | 5 |
| -INFLAMMATION, CHRONIC | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| -ACINAR (EXOCRINE) ATROPHY | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| PAROTID GLAND | 5 | 0 | 0 | 0 | 0 | 5 |
| -INFLAMMATION, CHRONIC | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| PITUITARY GLAND | 5 | 0 | 0 | 0 | 0 | 5 |
| PARATHYROID | 5 | 0 | 0 | 0 | 0 | 5 |
| RECTUM | 5 | 0 | 0 | 0 | 0 | 5 |
| SPINAL CORD | 5 | 0 | 0 | 0 | 0 | 5 |
| SUBMANDIBULAR LN | 0 | 0 | 0 | 0 | 0 | 1 |
| -HYPERPLASIA, LYMPHOID | 0 | 0 | 0 | 0 | 0 | 1 |
| | 0% | 0% | 0% | 0% | 0% | 100% |
| -M- LYMPHOMA / LYMPHOSARCOMA | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| SKIN | 5 | 0 | 0 | 0 | 0 | 5 |
| SUB-LINGUAL GLAND | 5 | 0 | 0 | 0 | 0 | 5 |
| -HYPERPLASIA, DUCT | 1 | 0 | 0 | 0 | 0 | 0 |
| | 20% | 0% | 0% | 0% | 0% | 0% |
| SKELETAL MUSCLE | 5 | 0 | 0 | 0 | 0 | 5 |
| SCIATIC NERVE | 5 | 0 | 0 | 0 | 0 | 4 |

Pathology Table 18 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(ALL FINDING)
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 STUDY START DATE: 04-NOV-86
 SPECIES: RAT/SPRAGUE-DAWLEY

STUDY NUMBER: 86005
 PATHOLOGIST(S): WALKER, HARRY
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

PRINTED: 02-FEB-89
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NOTES: ANIMALS = INTERIM SACRIFICE 2
 CTLS = CONTROLS FROM GROUP(S): 1

ANIMAL SEX:
 DOSAGE GROUP:
 NO. IN GROUP:

T I S S U E S W I T H F I N D I N G S

... A N I M A L S A F F E C T E D ...

... M A L E S ...

CTLS 2 3 4 5 6

5 5 5 5 5

1 2 1 0 0

20% 40% 20% 0% 0%

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

0% 0% 0% 0% 20%

5 0 0 0 5

0 0 0 0 0

0% 0% 0% 0% 0%

5 0 0 0 5

0 0 0 0 0

0% 0% 0% 0% 0%

5 0 0 0 5

0 0 0 0 0

0% 0% 0% 0% 0%

SOLEUS NUMBER EXAMINED:

-INFLAMMATION,CHRONIC

-INFLAMMATION,ACUTE

-INFLAMMATION,SUBACUTE

-DEGENERATION,FOCAL

SPLEEN NUMBER EXAMINED:

-M. LYMPHOMA / LYMPHOSARCOMA

STOMACH NUMBER EXAMINED:

TESTES NUMBER EXAMINED:

-UNILATERAL ORGAN ATROPHY

THYROID GLANDS NUMBER EXAMINED:

-CYST

THYMS NUMBER EXAMINED:

-HEMORRHAGE,MULTIFOCAL

TONGUE NUMBER EXAMINED:

TRACHEA NUMBER EXAMINED:

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH X) OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 6
 PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = INTERIM SACRIFICE 2 .. ANIMALS AFFECTED ..
 CTLs = CONTROLS FROM GROUP(S): 1 ANIMAL SEX: .. MALES ..

| T I S S U E S | W I T H | F I N D I N G S | NO. IN GROUP: | CTLs | 2 | 3 | 4 | 5 | 6 |
|---------------|---------------|-----------------|------------------|------|---|---|---|---|---|
| U R I N A R Y | B L A D D E R | | N U M B E R | 5 | 0 | 0 | 0 | 0 | 5 |
| | | | E X A M I N E D: | 5 | 0 | 0 | 0 | 0 | 5 |

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH X) OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 1
 PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

NOTES: ANIMALS = FINAL SACRIFICE
 CTLS = CONTROLS FROM GROUP(S): 1 ANIMAL SEX: ... A N I M A L S A F F E C T E D ...
 T I S S U E S W I T H F I N D I N G S NO. IN GROUP: ... F E M A L E S ...

| T I S S U E S | W I T H | F I N D I N G S | NO. IN GROUP | NO. EXAMINED | NO. WITH FINDING | PERCENTAGE |
|-------------------------------|---------|-----------------|--------------|--------------|------------------|------------|
| ADRENAL | | | 9 | 1 | 0 | 0 |
| -CORTICAL NODULAR HYPERTROPHY | | | 0 | 0 | 0 | 0 |
| | | | 0% | 0% | 0% | 0% |
| -ACCESSORY ADRENAL | | | 0 | 0 | 0 | 0 |
| | | | 0% | 0% | 0% | 0% |
| AORTA | | | 10 | 0 | 0 | 0 |
| BONE, FEMUR | | | 10 | 0 | 0 | 0 |
| BRAIN | | | 10 | 0 | 0 | 0 |
| BONE, STERNUM | | | 10 | 0 | 0 | 0 |
| CECUM | | | 10 | 0 | 0 | 0 |
| COLON | | | 10 | 0 | 0 | 0 |
| DIAPHRAGM | | | 9 | 10 | 10 | 10 |
| -INFLAMMATION, CHRONIC | | | 0 | 0 | 1 | 0 |
| | | | 0% | 0% | 10% | 0% |
| DUODENUM | | | 10 | 0 | 0 | 0 |
| EAR | | | 8 | 0 | 0 | 0 |
| EX DIGITORUM LON | | | 10 | 10 | 10 | 10 |
| EXORBITAL LACRIM | | | 10 | 0 | 0 | 0 |
| INFLAMMATION, CHRONIC | | | 2 | 0 | 0 | 0 |
| | | | 20% | 0% | 0% | 0% |
| ESOPHAGUS | | | 10 | 0 | 0 | 0 |
| EYES & OPTIC N. | | | 10 | 0 | 0 | 0 |

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 2
 PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

NOTES: ANIMALS = FINAL SACRIFICE ... ANIMALS AFFECTED ...
 CTLS = CONTROLS FROM GROUP(S): 1 ANIMAL SEX: ... FEMALES ...

| T I S S U E S | W I T H | F I N D I N G S | N O. I N G R O U P | N U M B E R E X A M I N E D |
|---------------|---------|-----------------|--------------------|-----------------------------|
| | | | CTLS | 2 3 4 5 6 |
| | | | | 10 10 10 10 10 |

| | | | | | | |
|---------------------------------------|-----|-----|-----|-----|-----|-----|
| HARDERIAN GLAND | 10 | 0 | 0 | 0 | 0 | 10 |
| -INFLAMMATION, CHRONIC | 0 | 0 | 0 | 0 | 0 | 3 |
| | 0% | 0% | 0% | 0% | 0% | 30% |
| HEART | 10 | 0 | 0 | 0 | 0 | 10 |
| ILEUM | 10 | 0 | 0 | 0 | 0 | 10 |
| JEJUNUM | 10 | 0 | 0 | 0 | 0 | 10 |
| KIDNEY | 10 | 10 | 10 | 10 | 9 | 10 |
| -INFLAMMATION, CHRONIC | 2 | 0 | 0 | 0 | 1 | 0 |
| | 20% | 0% | 0% | 0% | 11% | 0% |
| -MINERALIZATION | 3 | 3 | 6 | 2 | 1 | 4 |
| | 30% | 30% | 60% | 20% | 11% | 40% |
| -NEPHROPATHY | 0 | 0 | 0 | 0 | 1 | 0 |
| | 0% | 0% | 0% | 0% | 11% | 0% |
| -INFLAMMATION, CHRONIC-ACTIVE, SEROSA | 0 | 0 | 1 | 0 | 0 | 0 |
| | 0% | 0% | 10% | 0% | 0% | 0% |
| -B-ADENOMA | 0 | 0 | 0 | 0 | 1 | 0 |
| | 0% | 0% | 0% | 0% | 11% | 0% |
| LIVER | 10 | 10 | 10 | 10 | 10 | 10 |
| -INFLAMMATION, CHRONIC, MULTIFOCAL | 2 | 1 | 2 | 0 | 1 | 4 |
| | 20% | 10% | 20% | 0% | 10% | 40% |
| -FATTY CHANGE, FOCAL | 1 | 0 | 0 | 0 | 0 | 0 |
| | 10% | 0% | 0% | 0% | 0% | 0% |
| -VACUOLIZATION, FOCAL | 0 | 0 | 0 | 1 | 0 | 0 |
| | 0% | 0% | 0% | 10% | 0% | 0% |
| LUNGS | 10 | 10 | 10 | 10 | 10 | 10 |
| -INFLAMMATION, CHRONIC, FOCAL | 0 | 0 | 0 | 0 | 0 | 1 |
| | 0% | 0% | 0% | 0% | 0% | 10% |

Pathology Table 19 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH % OF MICROSCOPIC OBSERVATIONS(ALL FINDING))
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

STUDY NUMBER: 26LP8605
 PATHOLOGIST(S): WALKER, HARRY
 STUDY START DATE: 10-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

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--- ANIMALS AFFECTED ---

CTLS 2 3 4 5 6
 10 10 10 10 10 10

ANIMAL SEX:
 DOSAGE GROUP:
 NO. IN GROUP:

CTLS = CONTROLS FROM GROUP(S): 1
 T I S S U E S W I T H F I N D I N G S

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|------|-----|----|-----|-----|------|
| LUNGS | 0 | 1 | 0 | 0 | 0 | 0 |
| -INFLAMMATION, CHRONIC, GRANULOMATOUS | 0% | 10% | 0% | 0% | 0% | 0% |
| -INFLAMMATION, CHRONIC, PERIVASCULAR | 0 | 0 | 0 | 0 | 0 | 0 |
| -AGGREGATIONS OF ALVEOLAR MACROPHAGES (HISTIOCYTOSIS) | 0 | 0 | 0 | 1 | 1 | 0 |
| | 0% | 0% | 0% | 10% | 10% | 0% |
| SUBMANDIBULAR LN | 2 | 0 | 0 | 0 | 0 | 1 |
| -HYPERPLASIA, LYMPHOID | 2 | 0 | 0 | 0 | 0 | 1 |
| | 100% | 0% | 0% | 0% | 0% | 100% |
| MAMMARY GLAND | 7 | 0 | 0 | 0 | 0 | 8 |
| MESENTERIC LYM N | 10 | 0 | 0 | 0 | 0 | 8 |
| MANDIBULAR GLND | 10 | 0 | 0 | 0 | 0 | 10 |
| NOSE/TURBINATES | 10 | 0 | 0 | 0 | 0 | 10 |
| OVARIES | 10 | 0 | 0 | 0 | 0 | 10 |
| -PARA-OVARIAN CYST(S) | 1 | 0 | 0 | 0 | 0 | 0 |
| | 10% | 0% | 0% | 0% | 0% | 0% |
| PANCREAS | 10 | 0 | 0 | 0 | 0 | 10 |
| -ACINAR (EXOCRINE) ATROPHY | 1 | 0 | 0 | 0 | 0 | 0 |
| | 10% | 0% | 0% | 0% | 0% | 0% |
| -CHRONIC INFLAMMATION | 1 | 0 | 0 | 0 | 0 | 1 |
| | 10% | 0% | 0% | 0% | 0% | 10% |
| PAROTID GLAND | 10 | 0 | 0 | 0 | 0 | 10 |
| PITUITARY GLAND | 9 | 0 | 0 | 0 | 0 | 9 |
| -CYST(S) | 1 | 0 | 0 | 0 | 0 | 0 |
| | 11% | 0% | 0% | 0% | 0% | 0% |

Pathology Table 19 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 4
 PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

NOTES: ANIMALS = FINAL SACRIFICE
 CTLS = CONTROLS FROM GROUP(S): 1 ANIMAL SEX:
 CTLS WITH FINDINGS NO. IN GROUP: DOSAGE GROUP:
 ... ANIMALS AFFECTED ...
 ... FEMALES ...

| T I S S U E S | W I T H | F I N D I N G S | NO. IN GROUP: | CTLS | 2 | 3 | 4 | 5 | 6 |
|-------------------------|---------|------------------|---------------|------|------|-----|-----|----|-----|
| PARATHYROID | | NUMBER EXAMINED: | 9 | 0 | 0 | 0 | 0 | 0 | 10 |
| RECTUM | | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 0 | 9 |
| SPINAL CORD | | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| SKIN | | NUMBER EXAMINED: | 9 | 0 | 0 | 0 | 0 | 0 | 9 |
| SUB-LINGUAL GLND | | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| SKELETAL MUSCLE | | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 0 | 9 |
| SCIATIC NERVE | | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 0 | 9 |
| SOLEUS | | NUMBER EXAMINED: | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| -INFLAMMATION, CHRONIC | | NUMBER EXAMINED: | 2 | 0 | 2 | 1 | 2 | 0 | 0 |
| | | | 20% | 0% | 20% | 10% | 20% | 0% | 0% |
| -INFLAMMATION, ACUTE | | NUMBER EXAMINED: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| -DEGENERATION, FOCAL | | NUMBER EXAMINED: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| -INFLAMMATION, SUBACUTE | | NUMBER EXAMINED: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| SPLEEN | | NUMBER EXAMINED: | 10 | 0 | 1 | 0 | 0 | 0 | 10 |
| -NECROGRANULOMA | | NUMBER EXAMINED: | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | | | 0% | 0% | 100% | 0% | 0% | 0% | 0% |
| STOMACH | | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 0 | 9 |
| THYROID GLANDS | | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| -CYST | | NUMBER EXAMINED: | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| | | | 10% | 0% | 0% | 0% | 0% | 0% | 20% |
| -INFLAMMATION, CHRONIC | | NUMBER EXAMINED: | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | | | 0% | 0% | 0% | 0% | 0% | 0% | 10% |

Pathology Table 19 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 5

RESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

NOTES: ANIMALS = FINAL SACRIFICE ANIMAL SEX: 1
 CTLS = CONTROLS FROM GROUP(S): 1
 T I S S U E S W I T H F I N D I N G S

| T I S S U E S | W I T H | F I N D I N G S | NO. IN GROUP: | CTLS | 2 | 3 | 4 | 5 | 6 | ANIMALS AFFECTED |
|-------------------------|---------|-----------------|---------------|------|----|----|----|----|-----|------------------|
| THYMUS | | | 10 | 0 | 0 | 0 | 0 | 0 | 8 | |
| -HEMORRHAGE, MULTIFOCAL | | | 1 | 0 | 0 | 0 | 0 | 0 | 1 | |
| | | | 10% | 0% | 0% | 0% | 0% | 0% | 12% | |

| TONGUE | NUMBER EXAMINED: | CTLS | 2 | 3 | 4 | 5 | 6 |
|------------------------|------------------|------|----|----|----|----|----|
| -MINERALIZATION, FOCAL | 10 | 0 | 0 | 0 | 0 | 0 | 9 |
| | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 10% | 0% | 0% | 0% | 0% | 0% | 0% |

| TRACHEA | NUMBER EXAMINED: | CTLS | 2 | 3 | 4 | 5 | 6 |
|---------|------------------|------|---|---|---|---|----|
| | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| | 9 | 0 | 0 | 0 | 0 | 0 | 9 |

| URINARY BLADDER | NUMBER EXAMINED: | CTLS | 2 | 3 | 4 | 5 | 6 |
|-----------------|------------------|------|----|----|----|----|----|
| | 9 | 0 | 0 | 0 | 0 | 0 | 9 |
| | 9 | 0 | 0 | 0 | 0 | 0 | 9 |
| | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 11% | 0% | 0% | 0% | 0% | 0% | 0% |

| UTERUS | NUMBER EXAMINED: | CTLS | 2 | 3 | 4 | 5 | 6 |
|------------------------------------|------------------|------|----|----|----|----|-----|
| -SQUAMOUS METAPLASIA OF THE MUCOSA | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 0% | 0% | 0% | 0% | 0% | 0% | 11% |

| -DILATATION OF THE UTERINE LUMEN (HYDROMETRA) | NUMBER EXAMINED: | CTLS | 2 | 3 | 4 | 5 | 6 |
|---|------------------|------|---|---|---|---|----|
| | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| | 9 | 0 | 0 | 0 | 0 | 0 | 9 |

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(NON-NEOPLASMS)
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

STUDY NUMBER: 2GLPB605
 PATHOLOGIST(S): WALKER, HARRY
 STUDY START DATE: 10-DEC-86

PRINTED: 02-FEB-89
 PAGE: 1

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

.. ANIMALS AFFECTED ..
 .. FEMALES ..

CTLS 2 3 4 5 6
 5 5 5 5 5

NOTES: ANIMALS = INTERIM SACRIFICE 2
 CTLS = CONTROLS FROM GROUP(S): 1

ANIMAL SEX:
 DOSAGE GROUP:
 NO. IN GROUP:

T I S S U E S W I T H F I N D I N G S

| T I S S U E S | W I T H | F I N D I N G S | NO. EXAMINED | NO. WITH FINDINGS | % |
|-------------------------------|---------|-----------------|--------------|-------------------|------|
| ADRENAL | | | 5 | 0 | 0% |
| -CORTICAL MODULAR HYPERTROPHY | | | 5 | 0 | 0% |
| -ACCESSORY ADRENAL | | | 5 | 0 | 0% |
| AORTA | | | 5 | 0 | 0% |
| BONE, FEMUR | | | 5 | 0 | 0% |
| BRAIN | | | 5 | 0 | 0% |
| BONE, STERNUM | | | 5 | 0 | 0% |
| CECUM | | | 5 | 0 | 0% |
| COLON | | | 5 | 0 | 0% |
| DIAPHRAGM | | | 5 | 5 | 100% |
| -INFLAMMATION, CHRONIC | | | 5 | 5 | 100% |
| DUODENUM | | | 5 | 0 | 0% |
| EAR | | | 5 | 0 | 0% |
| EX DIGITORUM LON | | | 5 | 5 | 100% |
| EXORBITAL LACRIM | | | 5 | 0 | 0% |
| -INFLAMMATION, CHRONIC | | | 5 | 0 | 0% |
| ESOPHAGUS | | | 5 | 0 | 0% |
| EYES & OPTIC N. | | | 5 | 0 | 0% |

Pathology Table 20

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(NON-NEOPLASMS)
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

STUDY NUMBER: 2GLP8605
 PATHOLOGIST(S): WALKER, HARRY
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

NOTES: ANIMALS = INTERIM SACRIFICE 2
 CTLS = CONTROLS FROM GROUP(S): 1

ANIMALS AFFECTED --
 CTLS 2 3 4 5 6
 -- FEMALES --
 5 5 5 5 5

T I S S U E S W I T H F I N D I N G S

HARDERIAN GLAND NUMBER EXAMINED: 5 0 0 0 0 5
 -INFLAMMATION, CHRONIC 0 0 0 0 0 0
 0% 0% 0% 0% 0% 0%

HEART NUMBER EXAMINED: 5 0 0 0 0 5

ILEUM NUMBER EXAMINED: 5 0 0 0 0 5

JEJUNUM NUMBER EXAMINED: 5 0 0 0 0 5

KIDNEY NUMBER EXAMINED: 5 5 5 5 5 5
 -INFLAMMATION, CHRONIC 0 1 1 0 0 0
 0% 20% 20% 0% 0% 0%

-MINERALIZATION 1 3 3 2 2 4
 20% 60% 60% 40% 40% 80%

-NEPHROPATHY 0 0 0 0 0 1
 0% 0% 0% 0% 0% 20%

-INFLAMMATION, CHRONIC-ACTIVE, SEROSA 0 0 0 0 0 0
 0% 0% 0% 0% 0% 0%

LIVER NUMBER EXAMINED: 5 5 5 5 5 5
 -INFLAMMATION, CHRONIC, MULTIFOCAL 3 0 0 2 2 2
 60% 0% 0% 40% 40% 40%

-FATTY CHANGE, FOCAL 0 0 0 0 0 0
 0% 0% 0% 0% 0% 0%

-VACUOLIZATION, FOCAL 0 0 0 0 0 0
 0% 0% 0% 0% 0% 0%

LUNGS NUMBER EXAMINED: 5 5 5 5 5 5
 -INFLAMMATION, CHRONIC, FOCAL 0 0 0 0 0 1
 0% 0% 0% 0% 0% 20%

-INFLAMMATION, CHRONIC, GRANULOMATOUS 0 0 0 0 0 0
 0% 0% 0% 0% 0% 0%

Pathology Table 20 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(NON-NEOPLASMS) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 26LP8605 PAGE: 3
 PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: R17/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

NOTES: ANIMALS = INTERIM SACRIFICE 2 ... ANIMALS AFFECTED ..
 CTLs = CONTROLS FROM GROUP(S): 1 ANIMAL SEX: ... FEMALES ...
 TISSUES WITH FINDINGS NO. IN GROUP: DOSAGE GROUP: ...
 LUNGS NUMBER EXAMINED: ...
 -INFLAMMATION, CHRONIC, PERIVASCULAR

-AGGREGATIONS OF ALVEOLAR MACROPHAGES (HISTIOCYTOSIS)

SUBMANDIBULAR LN NUMBER EXAMINED: 0 0 0 0 0 1
 -HYPERPLASIA, LYMPHOID 0 0 0 0 0 1
 0% 0% 0% 0% 0% 100%

MAMMARY GLAND NUMBER EXAMINED: 3 0 0 0 0 5

MESENTERIC LYMN NUMBER EXAMINED: 5 0 0 0 0 5

MANDIBULAR GLND NUMBER EXAMINED: 5 0 0 0 0 5

NOSE/TURBINATES NUMBER EXAMINED: 5 0 0 0 0 5

OVARIES NUMBER EXAMINED: 5 1 0 0 0 5

-PARA-OVARIAN CYST(S) 0 1 0 0 0 0
 0% 100% 0% 0% 0% 0%

PANCREAS NUMBER EXAMINED: 5 0 0 0 0 5

-ACINAR (EXOCRINE) ATROPHY 0 0 0 0 0 1
 0% 0% 0% 0% 0% 20%

-CHRONIC INFLAMMATION 1 0 0 0 0 2
 20% 0% 0% 0% 0% 40%

PAROTID GLAND NUMBER EXAMINED: 5 0 0 0 0 5

PITUITARY GLAND NUMBER EXAMINED: 5 0 0 0 0 5

-CYST(S) 0 0 0 0 0 0
 0% 0% 0% 0% 0% 0%

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS (NON-NEOPLASMS)
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129

STUDY NUMBER: 76LP8605
 PATHOLOGIST(S): W. KER, HARRY

STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

PRINTED: 02-FEB-89
 PAGE: 4

NOTES: ANIMALS = INTERIM SACRIFICE 2
 CTLS = CONTROLS FROM GROUP(S): 1

T I S S U E S W I T H F I N D I N G S

| ANIMAL SEX: | CTLS | 2 | 3 | 4 | 5 | 6 |
|---------------|------|---|---|---|---|---|
| DOSE GROUP: | 5 | 5 | 5 | 5 | 5 | 5 |
| NO. IN GROUP: | | | | | | |

.. ANIMALS AFFECTED ..

| | | | | | | |
|-------------------------|-----|----|-----|-----|-----|-----|
| PARATHYROID | 3 | 0 | 0 | 0 | 0 | 5 |
| RECTUM | 5 | 0 | 0 | 0 | 0 | 5 |
| SPINAL CORD | 5 | 0 | 0 | 0 | 0 | 5 |
| SKIN | 5 | 0 | 0 | 0 | 0 | 5 |
| SUB-LINGUAL GLND | 5 | 0 | 0 | 0 | 0 | 5 |
| SKELETAL MUSCLE | 5 | 0 | 0 | 0 | 0 | 5 |
| SCIATIC NERVE | 5 | 0 | 0 | 0 | 0 | 5 |
| SOLEUS | 5 | 5 | 5 | 5 | 5 | 5 |
| -INFLAMMATION, CHRONIC | 0 | 0 | 1 | 0 | 0 | 0 |
| | 0% | 0% | 20% | 20% | 0% | 0% |
| -INFLAMMATION, ACUTE | 0 | 0 | 0 | 0 | 1 | 1 |
| | 0% | 0% | 0% | 0% | 20% | 20% |
| -DEGENERATION, FOCAL | 0 | 0 | 0 | 1 | 0 | 0 |
| | 0% | 0% | 0% | 20% | 0% | 0% |
| -INFLAMMATION, SUBACUTE | 0 | 0 | 0 | 1 | 0 | 0 |
| | 0% | 0% | 0% | 20% | 0% | 0% |
| SPLEEN | 5 | 0 | 0 | 0 | 0 | 5 |
| -NECROGRANULOMA | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| STOMACH | 5 | 0 | 0 | 0 | 0 | 5 |
| THYROID GLANDS | 5 | 0 | 0 | 0 | 0 | 5 |
| -CYST | 3 | 0 | 0 | 0 | 0 | 2 |
| | 60% | 0% | 0% | 0% | 0% | 40% |
| -INFLAMMATION, CHRONIC | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0% | 0% | 0% | 0% | 0% | 0% |

Pathology Table 20 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY (WITH %) OF MICROSCOPIC OBSERVATIONS(NON-NEOPLASMS) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 5
 PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

NOTES: ANIMALS = INTERIM SACRIFICE 2
 CTLS = CONTROLS FROM GROUP(S): 1 ANIMAL SEX:
 DOSAGE GROUP:
 NO. IN GROUP:
 T I S S U E S W I T H F I N D I N G S

| | CTLS | 2 | 3 | 4 | 5 | 5 | 5 | 5 | 5 | |
|---|------------------------|----|----|----|----|---------------|----|-----|-----|--|
| | .. ANIMALS AFFECTED .. | | | | | .. FEMALES .. | | | | |
| THYMUS | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | |
| -HEMORRHAGE, MULTIFOCAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| TONGUE | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | |
| -MINERALIZATION, FOCAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| TRACHEA | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | |
| URINARY BLADDER | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | |
| UTERUS | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | |
| -SQUAMOUS METAPLASIA OF THE MUCOSA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| -DILATATION OF THE UTERINE LUMEN (HYDROMETRA) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 20 | |
| | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 20% | 20% | |

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(ALL FINDING)
 STUDY NUMBER: 86005
 PATHOLOGIST(S): WALKER, HARRY

PRINTED: 02-FEB-89
 PAGE: 1

STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = ALL DEAD FROM 01-FEB-87 TO 06-FEB-87
 CTLS = CONTROLS FROM GROUP(S): 1 ANIMAL SEX:
 DOSAGE GROUP:
 NO. IN GROUP:

T I S S U E S W I T H F I N D I N G S

..... A N I M A L S A F F E C T E D ..

..... M A L E S ..

CTLS 2 3 4 5 6
 10 10 10 10 10 10

| ACCESSORY SEX OR | NUMBER EXAMINED: | NUMBER EXAMINED: | NUMBER EXAMINED: |
|---------------------------------------|------------------|------------------|------------------|
| -INFLAMMATION,CHRONIC,PROSTATE | 10 | 0 | 0 |
| -INFLAMMATION,ACUTE | 4 | 0 | 0 |
| -ATROPHY,PROSTATE | 0 | 0 | 0 |
| -INFLAMMATION,CHRONIC,PREPUTIAL GLAND | 0 | 0 | 0 |
| ADRENAL | 10 | 0 | 0 |
| AORTA | 10 | 0 | 0 |
| BONE, FEMUR | 10 | 0 | 0 |
| BRAIN | 10 | 0 | 0 |
| BONE, STERNUM | 10 | 0 | 0 |
| CECUM | 10 | 0 | 0 |
| COLON | 10 | 0 | 0 |
| DIAPHRAGM | 10 | 10 | 10 |
| -INFLAMMATION,SUBACUTE | 0 | 0 | 1 |
| -INFLAMMATION,ACUTE | 0 | 0 | 0 |
| -INFLAMMATION,CHRONIC | 0 | 0 | 0 |
| -DEGENERATION,FOCAL | 0 | 0 | 0 |
| DUODENUM | 10 | 0 | 0 |
| EAR | 10 | 0 | 0 |
| EX DIGITRUM LON | 9 | 10 | 10 |
| EXORBITAL LACRIM | 10 | 0 | 0 |
| -INFLAMMATION,CHRONIC | 5 | 0 | 0 |
| -ATROPHY | 0 | 0 | 0 |

NOTE: ENTRIES FLAGGED WITH A . (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SMIRNOV TWO-TAILED TEST.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 2
 PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = ALL DEAD FROM 01-FEB-87 TO 06-FEB-87 -- ANIMALS AFFECTED --
 CTLs = CONTROLS FROM GROUP(S): 1 ANIMAL SEX: MALES
 TISSUES WITH FINDINGS NO. IN GROUP NO. IN GROUP

| TISSUES WITH FINDINGS | NUMBER EXAMINED | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
|--------------------------------------|------------------|----|----|----|----|----|----|----|
| ESOPHAGUS | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| EYES & OPTIC N. | NUMBER EXAMINED: | 9 | 0 | 0 | 0 | 0 | 0 | 10 |
| HARDERIAN GLAND | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| -INFLAMMATION, CHRONIC | | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| HEART | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| -INFLAMMATION, CHRONIC | | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| ILEUM | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| JEJUNUM | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| KIDNEY | NUMBER EXAMINED: | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| -NEPHROPATHY | | 1 | 2 | 1 | 2 | 2 | 2 | 0 |
| -INFLAMMATION, CHRONIC | | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| -DILATION, PELVIS | | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| LIVER | NUMBER EXAMINED: | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| -INFLAMMATION, CHRONIC, MULTIFOCAL | | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| -M- LYMPHOMA / LYMPHOSARCOMA | | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| -NECROSIS, FOCAL | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| LUNGS | NUMBER EXAMINED: | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| -INFLAMMATION, CHRONIC, PERIVASCULAR | | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| -INFLAMMATION, CHRONIC, FOCAL | | 1 | 1 | 0 | 0 | 0 | 1 | 0 |
| -INFLAMMATION, ACUTE, PERIVASCULAR | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MESENTERY | NUMBER EXAMINED: | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| -NECROSIS, FAT | | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| -INFLAMMATION, ACUTE | | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| MAMMARY GLAND | NUMBER EXAMINED: | 7 | 0 | 0 | 0 | 0 | 0 | 6 |
| MESENTERIC LYM N | NUMBER EXAMINED: | 10 | 1 | 0 | 0 | 0 | 0 | 9 |
| -M- LYMPHOMA / LYMPHOSARCOMA | | 0 | 1 | 0 | 0 | 0 | 0 | 0 |

NOTE: ENTRIES FLAGGED WITH A - (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SMIRNOV TWO-TAILED TEST.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
DIV OF RES SUPP, PATH SERV GP
PRESIDIO OF SAN FRANCISCO, CA 94129
SPECIES: RAT/SPRAGUE-DAWLEY

INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(ALL FINDING)
STUDY NUMBER: 86005
PATHOLOGIST(S): WALKER, HARRY
STUDY START DATE: 04-NOV-86

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = ALL DEAD FROM 01-FEB-87 TO 06-FEB-87
CTLs = CONTROLS FROM GROUP(S): 1 ANIMAL SEX: MALES

T I S S U E S W I T H F I N D I N G S N O . I N G R O U P :
CTLs 2 3 4 5 6
10 10 10 10 10

| T I S S U E S W I T H F I N D I N G S | N O . I N G R O U P | N O . I N G R O U P | N O . I N G R O U P | N O . I N G R O U P | N O . I N G R O U P |
|---------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| MANDIBULAR GLND | 10 | 0 | 0 | 0 | 0 |
| NOSE/TURBINATES | 10 | 0 | 0 | 0 | 0 |
| PANCREAS | 10 | 0 | 0 | 0 | 0 |
| -INFLAMMATION, CHRONIC | 5 | 0 | 0 | 0 | 2 |
| -ACINAR (EXOCRINE) ATROPHY | 1 | 0 | 0 | 0 | 3 |
| PAROTID GLAND | 10 | 0 | 0 | 0 | 0 |
| -INFLAMMATION, CHRONIC | 0 | 0 | 0 | 0 | 1 |
| PITUITARY GLAND | 10 | 0 | 0 | 0 | 0 |
| PARATHYROID | 9 | 0 | 0 | 0 | 0 |
| RECTUM | 10 | 0 | 0 | 0 | 0 |
| SPINAL CORD | 10 | 0 | 0 | 0 | 0 |
| SUBMANDIBULAR LN | 1 | 0 | 0 | 0 | 0 |
| -HYPERPLASIA, LYMPHOID | 1 | 0 | 0 | 0 | 0 |
| -M- LYMPHOMA / LYMPHOSARCOMA | 0 | 0 | 0 | 0 | 0 |
| SKIN | 9 | 0 | 0 | 0 | 0 |
| SUB-LINGUAL GLND | 10 | 0 | 0 | 0 | 0 |
| -HYPERPLASIA, DUCT | 0 | 0 | 0 | 0 | 0 |
| SKELETAL MUSCLE | 10 | 0 | 0 | 0 | 0 |
| SCIATIC NERVE | 10 | 0 | 0 | 0 | 0 |
| SOLEUS | 10 | 10 | 10 | 10 | 10 |
| -INFLAMMATION, CHRONIC | 3 | 3 | 5 | 1 | 2 |
| -INFLAMMATION, ACUTE | 1 | 0 | 0 | 0 | 0 |
| -INFLAMMATION, SUBACUTE | 0 | 1 | 0 | 1 | 0 |
| -DEGENERATION, FOCAL | 0 | 0 | 0 | 0 | 0 |

NOTE: ENTRIES FLAGGED WITH A (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SMIRNOV TWO-TAILED TEST.

Pathology Table 21 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(CALL FINDING)
 STUDY NUMBER: 86005
 PATHOLOGIST(S): WALKER, HARRY

PRINTED: 02-FEB-89
 PAGE: 4

STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = ALL DEAD FROM 01-FEB-87 TO 06-FEB-87
 CTLs = CONTROLS FROM GROUP(S): 1

... ANIMALS AFFECTED ...
 ... MALES ...

| TISSUES WITH FINDINGS | ANIMAL SEX | CTLs | 2 | 3 | 4 | 5 | 6 |
|-----------------------|--------------|------|----|----|----|----|----|
| | DOSAGE GROUP | 10 | 10 | 10 | 10 | 10 | 10 |
| | NO. IN GROUP | | | | | | |

| | | | | | | | |
|------------------------------|------------------|----|---|---|---|---|----|
| SPLEEN | NUMBER EXAMINED: | 10 | 1 | 0 | 0 | 0 | 10 |
| -M. LYMPHOMA / LYMPHOSARCOMA | | 0 | 1 | 0 | 0 | 0 | 0 |
| STOMACH | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 10 |
| TESTES | NUMBER EXAMINED: | 10 | 1 | 0 | 0 | 0 | 10 |
| -UNILATERAL ORGAN ATROPHY | | 0 | 1 | 0 | 0 | 0 | 0 |
| THYROID GLANDS | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 9 |
| -CYST | | 3 | 0 | 0 | 0 | 0 | 1 |
| THYMUS | NUMBER EXAMINED: | 9 | 0 | 0 | 0 | 0 | 9 |
| -HEMORRHAGE, MULTIFOCAL | | 2 | 0 | 0 | 0 | 0 | 3 |
| TONGUE | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 9 |
| TRACHEA | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 10 |
| URINARY BLADDER | NUMBER EXAMINED: | 10 | 0 | 0 | 0 | 0 | 10 |

NOTE: ENTRIES FLAGGED WITH A - (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SMIRNOV TWO-TAILED TEST.

Pathology Table 21 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(ALL FINDING)
 STUDY NUMBER: 86005
 PATHOLOGIST(S): WALKER, HARRY
 STUDY START DATE: 04-NOV-86

PRINTED: 02-FEB-89
 PAGE: 1
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = INTERIM SACRIFICE 2
 CTLS = CONTROLS FROM GROUP(S): 1 ANIMAL SEX: ...
 CTLS WITH FINDINGS NO. IN GROUP: ...
 .. ANIMALS AFFECTED ..

| TISSUES WITH FINDINGS | CTLS | MALES | MALES | MALES | MALES |
|---|------|-------|-------|-------|-------|
| ACCESSORY SEX OR | 5 | 0 | 0 | 0 | 5 |
| -INFLAMMATION, CHRONIC, PROSTATE | 0 | 0 | 0 | 0 | 1 |
| -INFLAMMATION, ACUTE | 1 | 0 | 0 | 0 | 0 |
| -ATROPHY, PROSTATE | 1 | 0 | 0 | 0 | 1 |
| -INFLAMMATION, CHRONIC, PREPUTIAL GLAND | 0 | 0 | 0 | 0 | 0 |
| ADRENAL | 5 | 0 | 0 | 0 | 5 |
| AORTA | 5 | 0 | 0 | 0 | 5 |
| BONE, FEMUR | 5 | 0 | 0 | 0 | 5 |
| BRAIN | 5 | 0 | 0 | 0 | 5 |
| BONE, STERNUM | 5 | 0 | 0 | 0 | 5 |
| CECUM | 5 | 0 | 0 | 0 | 5 |
| COLON | 5 | 0 | 0 | 0 | 5 |
| DIAPHRAGM | 5 | 5 | 5 | 5 | 5 |
| -INFLAMMATION, SUBACUTE | 0 | 0 | 0 | 0 | 0 |
| -INFLAMMATION, ACUTE | 0 | 0 | 0 | 1 | 0 |
| -INFLAMMATION, CHRONIC | 0 | 0 | 0 | 0 | 1 |
| -DEGENERATION, FOCAL | 0 | 0 | 0 | 0 | 0 |
| DUODENUM | 5 | 0 | 0 | 0 | 5 |
| EAR | 5 | 0 | 0 | 0 | 4 |
| EX DIGITORUM LON | 5 | 5 | 5 | 5 | 5 |
| EXORBITAL LACRIM | 5 | 0 | 0 | 0 | 4 |
| -INFLAMMATION, CHRONIC | 2 | 0 | 0 | 0 | 0 |
| -ATROPHY | 1 | 0 | 0 | 0 | 0 |

NOTE: ENTRIES FLAGGED WITH A - (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SMIRNOV TWO-TAILED TEST.

Appendix O (cont.): PATHOLOGY

PRINTED: 02-FEB-89
PAGE: 2

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(ALL FINDING)
DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005
PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = INTERIM SACRIFICE 2 ANIMAL SEX: .. ANIMALS AFFECTED ..
CTLS = CONTROLS FROM GROUP(S): 1 DOSAGE GROUP: .. MALES ..
T I S S U E S W I T H F I N D I N G S N O . I N G R O U P C T L S 2 3 4 5 6

| T I S S U E S | W I T H | F I N D I N G S | N O . | I N | G R O U P | C T L S | 2 | 3 | 4 | 5 | 6 |
|--------------------------------------|---------|------------------|-------|-----|-----------|---------|---|---|---|---|---|
| ESOPHAGUS | | NUMBER EXAMINED: | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| EYES & OPTIC N. | | NUMBER EXAMINED: | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| HARDERIAN GLAND | | NUMBER EXAMINED: | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| -INFLAMMATION, CHRONIC | | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HEART | | NUMBER EXAMINED: | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| -INFLAMMATION, CHRONIC | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| ILEUM | | NUMBER EXAMINED: | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| JEJUNUM | | NUMBER EXAMINED: | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| KIDNEY | | NUMBER EXAMINED: | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| -NEPHROPATHY | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -INFLAMMATION, CHRONIC | | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -DILATION, PELVIS | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| LIVER | | NUMBER EXAMINED: | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| -INFLAMMATION, CHRONIC, MULTIFOCAL | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -M- LYMPHOMA / LYMPHOSARCOMA | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -NECROSIS, FOCAL | | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| LUNGS | | NUMBER EXAMINED: | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| -INFLAMMATION, CHRONIC, PERIVASCULAR | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -INFLAMMATION, CHRONIC, FOCAL | | | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| -INFLAMMATION, ACUTE, PERIVASCULAR | | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| MESENTERY | | NUMBER EXAMINED: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -NECROSIS, FAT | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -INFLAMMATION, ACUTE | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MAMMARY GLAND | | NUMBER EXAMINED: | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| MESENTERIC LYM N | | NUMBER EXAMINED: | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| -M- LYMPHOMA / LYMPHOSARCOMA | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NOTE: ENTRIES FLAGGED WITH A - (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SMIRNOV TWO-TAILED TEST.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH DIV OF RES SUPP, PATH SERV GP
 PRESDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(ALL FINDING)
 STUDY NUMBER: 86005
 PATHOLOGIST(S): WALKER, HARRY
 STUDY START DATE: 04-NOV-86

PRINTED: 02-FEB-89
 PAGE: 3

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = INTERIM SACRIFICE 2
 CTLS = CONTROLS FROM GROUP(S): 1

ANIMAL SEX:
 DOSAGE GROUP:
 NO. IN GROUP:

TISSUES WITH FINDINGS

--- ANIMALS AFFECTED ---
 CTLS 2 3 4 5 6
 5 5 5 5 5

| TISSUES WITH FINDINGS | NUMBER EXAMINED | MALES | MALES |
|------------------------------|-----------------|-------|-------|
| MANDIBULAR GLND | 5 | 0 | 0 |
| NOSE/TURBINATES | 5 | 0 | 0 |
| PANCREAS | 5 | 0 | 0 |
| -INFLAMMATION, CHRONIC | 0 | 0 | 0 |
| -ACINAR (EXOCRINE) ATROPHY | 0 | 0 | 0 |
| PAROTID GLAND | 5 | 0 | 0 |
| -INFLAMMATION, CHRONIC | 0 | 0 | 0 |
| PITUITARY GLAND | 5 | 0 | 0 |
| PARATHYROID | 5 | 0 | 0 |
| RECTUM | 5 | 0 | 0 |
| SPINAL CORD | 5 | 0 | 0 |
| SUBMANDIBULAR LN | 0 | 0 | 0 |
| -HYPERPLASIA, LYMPHOID | 0 | 0 | 0 |
| -H- LYMPHOMA / LYMPHOSARCOMA | 0 | 0 | 0 |
| SKIN | 5 | 0 | 0 |
| SUB-LINGUAL GLND | 5 | 0 | 0 |
| -HYPERPLASIA, DUCT | 1 | 0 | 0 |
| SKELETAL MUSCLE | 5 | 0 | 0 |
| SCIATIC NERVE | 5 | 0 | 0 |
| SOLEUS | 5 | 5 | 5 |
| -INFLAMMATION, CHRONIC | 1 | 2 | 1 |
| -INFLAMMATION, ACUTE | 0 | 0 | 0 |
| -INFLAMMATION, SUBACUTE | 0 | 0 | 0 |
| -DEGENERATION, FOCAL | 0 | 0 | 0 |

NOTE: ENTRIES FLAGGED WITH A - (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SMIRNOV TWO-TAILED TEST.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
 DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 4
 PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
 SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

NOTES: ANIMALS = INTERIM SACRIFICE 2 -- ANIMALS AFFECTED --
 CTLS = CONTROLS FROM GROUP(S): 1 ANIMAL SEX: MALES

| T I S S U E S | W I T H | F I N D I N G S | NO. IN GROUP | CTLS | 2 | 3 | 4 | 5 | 6 |
|---------------|---------|-----------------|--------------|------|---|---|---|---|---|
| | | | | 5 | 5 | 5 | 5 | 5 | 5 |

| | NUMBER EXAMINED | NUMBER EXAMINED | NUMBER EXAMINED | NUMBER EXAMINED | NUMBER EXAMINED | NUMBER EXAMINED | NUMBER EXAMINED | NUMBER EXAMINED | NUMBER EXAMINED |
|------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| SPLEEN | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| -M- LYMPHOMA / LYMPHOSARCOMA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| STOMACH | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| TESTES | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| -UNILATERAL ORGAN ATROPHY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| THYROID GLANDS | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| -CYST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| THYMUS | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| -HEMORRHAGE, MULTIFOCAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TONGUE | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| TRACHEA | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| URINARY BLADDER | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |

NOTE: ENTRIES FLAGGED WITH A - (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SHIRNOV TWO-TAILED TEST.

Appendix O (cont.): PATHOLOGY

PRINTED: 02-FEB-89
PAGE: 1

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(ALL FINDING)
DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605
PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
SPECIFS: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

NOTES: ANIMALS = FINAL SACRIFICE ANIMAL SEX: ANIMALS AFFECTED
 CTLs = CONTROLS FROM GROUP(S): 1 DOSAGE GROUP: Males Females
T I S S U E S W I T H F I N D I N G S N O . I N G R O U P : M A L E S F E M A L E S

| T I S S U E S | W I T H | F I N D I N G S | N O . I N | G R O U P : | M A L E S | F E M A L E S |
|-------------------------------|---------|-----------------|-----------|-------------|-----------|---------------|
| ADRENAL | | | 9 | 1 | 0 | 0 |
| -CORTICAL MODULAR HYPERTROPHY | | | 0 | 0 | 0 | 0 |
| -ACCESSORY ADRENAL | | | 0 | 0 | 0 | 0 |
| AORTA | | | 10 | 0 | 0 | 0 |
| BONE, FEMUR | | | 10 | 0 | 0 | 0 |
| BRAIN | | | 10 | 0 | 0 | 0 |
| BONE, STERNUM | | | 10 | 0 | 0 | 0 |
| CECUM | | | 10 | 0 | 0 | 0 |
| COLON | | | 10 | 0 | 0 | 0 |
| DIAPHRAGM | | | 9 | 10 | 10 | 10 |
| -INFLAMMATION,CHRONIC | | | 0 | 0 | 1 | 0 |
| DUODENUM | | | 10 | 0 | 0 | 0 |
| EAR | | | 8 | 0 | 0 | 0 |
| EX DIGITORUM LON | | | 10 | 10 | 10 | 10 |
| EXORBITAL LACRIM | | | 10 | 0 | 0 | 0 |
| -INFLAMMATION,CHRONIC | | | 2 | 0 | 0 | 0 |
| ESOPHAGUS | | | 10 | 0 | 0 | 0 |
| EYES & OPTIC N. | | | 10 | 0 | 0 | 0 |
| HARDERIAN GLAND | | | 10 | 0 | 0 | 0 |
| -INFLAMMATION,CHRONIC | | | 0 | 0 | 0 | 0 |
| HEART | | | 10 | 0 | 0 | 0 |

NOTE: ENTRIES FLAGGED WITH A - (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SMIRNOV TWO-TAILED TEST.

Pathology Table 23

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(ALL FINDING) PRINTED: 02-FEB-89
DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 2GLP8605 PAGE: 2
PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

NOTES: ANIMALS = FINAL SACRIFICE ANIMAL SEX: ANIMALS AFFECTED
CTLS = CONTROLS FROM GROUP(S): 1 ANIMAL SEX: FEMALES
CTLS 2 3 4 5 6
T I S S U E S W I T H F I N D I N G S N O. I N G R O U P 10 10 10 10 10

Table with 3 columns: Tissue, Number Examined, and Affected Count. Rows include ILEUM, JEJUNUM, KIDNEY, LIVER, LUNGS, SUBMANDIBULAR LN, MAMMARY GLAND, MESENTERIC LYMN, MANDIBULAR GLND, NOSE/TURBINATES, OVARIES, and PARA-OVARIAN CYST(S).

NOTE: ENTRIES FLAGGED WITH A . (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SMIRNOV TWO-TAILED TEST.

Pathology Table 23 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(ALL FINDING)
 STUDY NUMBER: 2GLP8605
 PATHOLOGIST(S): WALKER, HARRY

PRINTED: 02-FEB-89
 PAGE: 3

STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

NOTES: ANIMALS = FINAL SACRIFICE
 CTLS = CONTROLS FROM GROUP(S): 1 ANIMAL SEX:
 DOSAGE GROUP:
 NO. IN GROUP:

CTLS 2 3 4 5 6
 10 10 10 10 10 10

.. ANIMALS AFFECTED ..
 FEMALES ..

| T I S S U E S | W I T H | F I N D I N G S | NUM. | EXAMINED: |
|----------------------------|---------|-----------------|------|-------------------|
| PANCREAS | | | 10 | 0 0 0 0 0 10 |
| -ACINAR (EXOCRINE) ATROPHY | | | 1 | 0 0 0 0 0 0 |
| -CHRONIC INFLAMMATION | | | 1 | 0 0 0 0 0 1 |
| PAROTID GLAND | | | 10 | 0 0 0 0 0 10 |
| PITUITARY GLAND | | | 9 | 0 0 0 0 0 9 |
| -CYST(S) | | | 1 | 0 0 0 0 0 0 |
| PARATHYROID | | | 9 | 0 0 0 0 0 10 |
| RECTUM | | | 10 | 0 0 0 0 0 9 |
| SPINAL CORD | | | 10 | 0 0 0 0 0 10 |
| SKIN | | | 9 | 0 0 0 0 0 9 |
| SUB-LINGUAL GLND | | | 10 | 0 0 0 0 0 10 |
| SKELETAL MUSCLE | | | 10 | 0 0 0 0 0 9 |
| SCIATIC NERVE | | | 10 | 0 0 0 0 0 9 |
| SOLEUS | | | 10 | 10 10 10 10 10 10 |
| -INFLAMMATION, CHRONIC | | | 2 | 0 2 1 2 0 0 |
| -INFLAMMATION, ACUTE | | | 0 | 0 0 0 0 0 0 |
| -DEGENERATION, FOCAL | | | 0 | 0 0 0 0 0 0 |
| -INFLAMMATION, SUBACUTE | | | 0 | 0 0 0 0 0 0 |
| SPLEEN | | | 10 | 0 1 0 0 0 10 |
| -NECROGRANULOMA | | | 0 | 0 1 0 0 0 0 |
| STOMACH | | | 10 | 0 0 0 0 0 9 |
| THYROID GLANDS | | | 10 | 0 0 0 0 0 10 |
| -CYST | | | 1 | 0 0 0 0 0 2 |
| -INFLAMMATION, CHRONIC | | | 0 | 0 0 0 0 0 1 |

NOTE: ENTRIES FLAGGED WITH A . (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SMIRNOV TWO-TAILED TEST.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(ALL FINDING)
 STUDY NUMBER: ZGLP8605
 PATHOLOGIST(S): WALKER, HARRY

STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

PRINTED: 02-FEB-89
 PAGE: 4

NOTES: ANIMALS = FINAL SACRIFICE
 CTLS = CONTROLS FROM GROUP(S): 1 ANIMAL SEX:
 DOSAGE GROUP:
 NO. IN GROUP:

| T I S S U E S | W I T H | F I N D I N G S | CTLS | 2 | 3 | 4 | 5 | 6 |
|---|---------|-----------------|------|---|---|---|---|----|
| THYMUS | | | 10 | 0 | 0 | 0 | 0 | 8 |
| -HEMORRHAGE, MULTIFOCAL | | | 1 | 0 | 0 | 0 | 0 | 1 |
| TONGUE | | | 10 | 0 | 0 | 0 | 0 | 9 |
| -MINERALIZATION, FOCAL | | | 1 | 0 | 0 | 0 | 0 | 0 |
| TRACHEA | | | 10 | 0 | 0 | 0 | 0 | 10 |
| URINARY BLADDER | | | 9 | 0 | 0 | 0 | 0 | 9 |
| UTERUS | | | 9 | 0 | 0 | 0 | 0 | 9 |
| -SQUAMOUS METAPLASIA OF THE MUCOSA | | | 1 | 0 | 0 | 0 | 0 | 0 |
| -DILATATION OF THE UTERINE LUMEN (HYDROMETRA) | | | 0 | 0 | 0 | 0 | 0 | 1 |

NOTE: ENTRIES FLAGGED WITH A - (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SMIRNOV TWO-TAILED TEST.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(ALL FINDING)

STUDY NUMBER: 26LP8605
 PATHOLOGIST(S): WALKER, HARRY
 STUDY START DATE: 10-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

.. ANIMALS AFFECTED ..

NOTES: ANIMALS = INTERIM SACRIFICE 2
 CTLS = CONTROLS FROM GROUP(S): 1 ANIMAL SEX:
 CTLS WITH FINDINGS NO. IN GROUP:

| TISSUES WITH FINDINGS | CTLS | 2 | 3 | 4 | 5 | 6 | SEX |
|-------------------------------|------|---|---|---|---|---|-------|
| | 5 | 5 | 5 | 5 | 5 | 5 | MALES |
| ADRENAL | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| -CORTICAL MODULAR HYPERTROPHY | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -ACCESSORY ADRENAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AORTA | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| BONE, FEMUR | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| BRAIN | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| BONE, STERNUM | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| CECUM | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| COLON | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| DIAPHRAGM | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| -INFLAMMATION,CHRONIC | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| DUODENUM | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| EAR | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| EX DIGITORUM LON | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| EXORBITAL LACRIM | 5 | 0 | 0 | 0 | 0 | 0 | 4 |
| -INFLAMMATION,CHRONIC | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| ESOPHAGUS | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| EYES & OPTIC N. | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| HARDERIAN GLAND | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| -INFLAMMATION,CHRONIC | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HEART | 5 | 0 | 0 | 0 | 0 | 0 | 5 |

NOTE: ENTRIES FLAGGED WITH A - (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SMIRNOV TWO-TAILED TEST.

Pathology Table 24

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(ALL FINDING)
 STUDY NUMBER: 2GLP8605
 PATHOLOGIST(S): WALKER, HARRY
 STUDY START DATE: 10-DEC-86

PRINTED: 02-FEB-89
 PAGE: 2

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

NOTES: ANIMALS = INTERIM SACRIFICE 2
 CTL5 = CONTROLS FROM GROUP(S): 1

ANIMALS AFFECTED ..
 .. M A L E S ..
 .. F E M A L E S ..
 CTL5 2 3 4 5 6
 5 5 5 5 5

| T I S S U E S W I T H F I N D I N G S | ANIMAL SEX | NUMBER EXAMINED |
|---|--------------|-----------------|
| | DOSAGE GROUP | |
| | NO. IN GROUP | |
| ILEUM | | 5 0 0 0 0 5 |
| JEJUNUM | | 5 0 0 0 0 5 |
| KIDNEY | | 5 5 5 5 5 5 |
| -INFLAMMATION, CHRONIC | | 0 1 1 0 0 0 |
| -MINERALIZATION | | 1 3 3 2 2 4 |
| -NEPHROPATHY | | 0 0 0 0 0 1 |
| -INFLAMMATION, CHRONIC-ACTIVE, SEROSA | | 0 0 0 0 0 0 |
| -B-ADENOMA | | 0 0 0 0 0 0 |
| LIVER | | 5 5 5 5 5 5 |
| -INFLAMMATION, CHRONIC, MULTIFOCAL | | 3 0 0 2 2 0 |
| -FATTY CHANGE, FOCAL | | 0 0 0 0 0 0 |
| -VACUOLIZATION, FOCAL | | 0 0 0 0 0 0 |
| LUNGS | | 5 5 5 5 5 5 |
| -INFLAMMATION, CHRONIC, FOCAL | | 0 0 0 0 0 1 |
| -INFLAMMATION, CHRONIC, GRANULOMATOUS | | 0 0 0 0 0 0 |
| -INFLAMMATION, CHRONIC, PERIVASCULAR | | 0 1 1 0 0 0 |
| -AGGREGATIONS OF ALVEOLAR MACROPHAGES (HISTIOCYTOSIS) | | 0 0 0 0 0 0 |
| SUBMANDIBULAR LN | | 0 0 0 0 0 1 |
| -HYPERPLASIA, LYMPHOID | | 0 0 0 0 0 1 |
| MAMMARY GLAND | | 3 0 0 0 0 5 |
| MESENTERIC LYM N | | 5 0 0 0 0 5 |
| MANDIBULAR GLND | | 5 0 0 0 0 5 |
| NOSE/TURBINATES | | 5 0 0 0 0 5 |
| OVARIES | | 5 1 0 0 0 5 |
| -PARA-OVARIAN CYST(3) | | 0 1 0 0 0 0 |

NOTE: ENTRIES FLAGGED WITH A - (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SMIRNOV TWO-TAILED TEST.

Pathology Table 24 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(ALL FINDING)
 STUDY NUMBER: 2GLP8605
 PATHOLOGIST(S): WALKER, HARRY
 STUDY START DATE: 10-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

.. ANIMALS AFFECTED ..

CTLS 2 3 4 5 6
 5 5 5 5 5

ANIMAL SEX:
 DOSAGE GROUP:
 NO. IN GROUP:

1
 1
 1

1
 1
 1

1
 1
 1

1
 1
 1

| TISSUES WITH FINDINGS | NUMBER EXAMINED | MALES | FEMALES |
|----------------------------|-----------------|-------|---------|
| PANCREAS | 5 | 0 | 0 |
| -ACINAR (EXOCRINE) ATROPHY | 0 | 0 | 0 |
| -CHRONIC INFLAMMATION | 1 | 0 | 0 |
| PAROTID GLAND | 5 | 0 | 0 |
| PITUITARY GLAND | 5 | 0 | 0 |
| -CYST(S) | 0 | 0 | 0 |
| PARATHYROID | 3 | 0 | 0 |
| RECTUM | 5 | 0 | 0 |
| SPINAL CORD | 5 | 0 | 0 |
| SKIN | 5 | 0 | 0 |
| SUB-LINGUAL GLAND | 5 | 0 | 0 |
| SKELETAL MUSCLE | 5 | 0 | 0 |
| SCIATIC NERVE | 5 | 0 | 0 |
| SOLEUS | 5 | 5 | 5 |
| -INFLAMMATION, CHRONIC | 0 | 1 | 1 |
| -INFLAMMATION, ACUTE | 0 | 0 | 0 |
| -DEGENERATION, FOCAL | 0 | 0 | 0 |
| -INFLAMMATION, SUBACUTE | 0 | 0 | 0 |
| SPLEEN | 5 | 0 | 0 |
| -NECROGRANULOMA | 0 | 0 | 0 |
| STOMACH | 5 | 0 | 0 |
| THYROID GLANDS | 5 | 0 | 0 |
| -CYST | 3 | 0 | 0 |
| -INFLAMMATION, CHRONIC | 0 | 0 | 0 |

NOTE: ENTRIES FLAGGED WITH A - (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SHIRNOV TWO-TAILED TEST.

Pathology Table 24 (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

INCIDENCE SUMMARY OF MICROSCOPIC OBSERVATIONS(ALL FINDING)
 STUDY NUMBER: 2GLP8605
 PATHOLOGIST(S): WALKER, HARRY

PRINTED: 02-FEB-89
 PAGE: 4

STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

NOTES: ANIMALS = INTERIM SACRIFICE 2

.. A N I M A L S A F F E C T E D ..

CTLs = CONTROLS FROM GROUP(S): 1

ANIMAL SEX:

DOSE GROUP:

NO. IN GROUP:

CTLs 2 3 4 5 6

.. FEMALES ..

5 5 5 5 5

T I S S U E S W I T H F I N D I N G S

THYMUS NUMBER EXAMINED: 5 0 0 0 0 0 5
 -HEMORRHAGE, MULTIFOCAL
 TONGUE NUMBER EXAMINED: 5 0 0 0 0 0 5
 -MINERALIZATION, FOCAL
 TRACHEA NUMBER EXAMINED: 5 0 0 0 0 0 5
 URINARY BLADDER NUMBER EXAMINED: 5 0 0 0 0 0 5
 UTERUS NUMBER EXAMINED: 5 0 0 0 0 0 5
 -SQUAMOUS METAPLASIA OF THE MUCOSA
 -DILATATION OF THE UTERINE LUMEN (HYDROMETRA)

NOTE: ENTRIES FLAGGED WITH A - (MINUS) ARE SIGNIFICANTLY DIFFERENT FROM CONTROL AT THE 0.05 LEVEL USING KOLMOGOROV-SMIRNOV TWO-TAILED TEST.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
DIV OF RES SUPP, PATH SERV GP
PRESIDIO OF SAN FRANCISCO, CA 94129
SPECIES: RAT/SPRAGUE-DAWLEY

CORRELATION OF GROSS AND MICROSCOPIC FINDINGS
STUDY NUMBER: 86005
PATHOLOGIST(S): WALKER, HARRY, JOHNSON, TOM
SSTUDY START DATE: 04-NOV-86

PRINTED: 18-NOV-88
PAGE: 5

SSTUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 86D0530
DATE OF DEATH: 03-FEB-87

SEX: MALE
STUDY DAY OF DEATH: 92

DOSE GROUP: 1
STUDY WEEK OF DEATH: 14

SACRIFICE STATUS: FINAL SACRIFICE
TERMINAL BODY WEIGHT: 550.00 (GMS)

ORGAN NAME: LIVER
KEYWORDS / DISTRIBUTION (SEVERITY)

<< P A T H O L O G Y O B S E R V A T I O N S >>
GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

*GROSS: (MILD) ABNORMAL COLOR

1X1CM FOCUS MOSTLY WHITE WITH SOME BLACK SURROUNDED BY
CONGESTION IS PRESENT IN ONE LOBE. PROBABLY INJECTION
SITE FROM EUTHANASIA SOLUTION.
INFLAMMATION, CHRONIC, MULTIFOCAL

*MICRO: NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
DIV OF RES SUPP, PATH SERV GP
PRESIDIO OF SAN FRANCISCO, CA 94129
SPECIES: RAT/SPRAGUE-DAWLEY

CORRELATION OF GROSS AND MICROSCOPIC FINDINGS
STUDY NUMBER: 86005
PATHOLOGIST(S): WALKER, HARRY

PRINTED: 02-FEB-89
PAGE: 1

STUDY START DATE: 04-NOV-86

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 86D0625
DATE OF DEATH: 03-FEB-87

SEX: MALE
STUDY DAY OF DEATH: 92

DOSE GROUP: 2
STUDY WEEK OF DEATH: 14

SACRIFICE STATUS: FINAL SACRIFICE
TERMINAL BODY WEIGHT: 563.00 (GMS)

ORGAN NAME

KEYWORDS / DISTRIBUTION (SEVERITY)

<< P A T H O L O G Y O B S E R V A T I O N S >>

GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

TESTES

*GROSS: (MILD) ATROPHIC / SMALL, UNILATERALLY
*MICRO: DIFFUSE(MARKED)

RIGHT TESTICLE. 0.7X0.5CM.
UNILATERAL ORGAN ATROPHY

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH CORRELATION OF GROSS AND MICROSCOPIC FINDINGS PRINTED: 02-FEB-89
DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 86005 PAGE: 1
PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600628 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 414.00 (GMS)

ORGAN NAME KEYWORDS / DISTRIBUTION (SEVERITY) OBSERVATIONS GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

LIVER (MODERATE) ENLARGED (MILD) DISSEMINATED FOCI THE LIVER WAS ABOUT THREE TIMES NORMAL SIZE.
(MILD) DISSEMINATED FOCI MULTIFOCAL AREAS APPEAR TO BE HEMORRHAGES.
(PRESENT) M- LYMPHOMA / LYMPHOSARCOMA

LYMPH NODES HEMORRHAGE(S) MULTIPLE LYMPH NODES ARE INVOLVED.
HEMORRHAGE(S) NONE

SPLEEN ENLARGED (SPLENOEGALY) 1X5CM
ENLARGED (SPLENOEGALY) M- LYMPHOMA / LYMPHOSARCOMA
(PRESENT)

Note: M- LYMPHOMA / LYMPHOSARCOMA WAS DIAGNOSED MICROSCOPICALLY IN THE SUBMANDIBULAR LYMPH NODE OF THIS ANIMAL.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
DIV OF RES SUPP, PATH SERV GP
PRESIDIO OF SAN FRANCISCO, CA 94129
SPECIES: RAT/SPRAGUE-DAWLEY

CORRELATION OF GROSS AND MICROSCOPIC FINDINGS
STUDY NUMBER: 86005
PATHOLOGIST(S): WALKER, HARRY
STUDY START DATE: 04-NOV-86

PRINTED: 02-FEB-89
PAGE: 1

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600686

SEX: MALE

DOSE GROUP: 5

SACRIFICE STATUS: FINAL SACRIFICE

DATE OF DEATH: 05-FEB-87

STUDY DAY OF DEATH: 94

STUDY WEEK OF DEATH: 14

TERMINAL BODY WEIGHT: 495.00 (GMS)

ORGAN NAME

<< P A T H O L O G Y

O B S E R V A T I O N S >>

KEYWORDS / DISTRIBUTION (SEVERITY) GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

LYMPH NODES

*GROSS: (MODERATE) ENLARGED

*MICRO: NONE

THE LEFT SUBMANDIBULAR LN IS ABOUT THREE TIMES NORMAL SIZE.
MULTIPLE PETECHIAE ARE ALSO PRESENT IN THIS ORGAN.

Note: M- LYMPHOMA / LYMPHOSARCOMA WAS DIAGNOSED IN THE SUBMANDIBULAR LYMPH
NODE OF THIS ANIMAL.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

CORRELATION OF GROSS AND MICROSCOPIC FINDINGS
 STUDY NUMBER: 201PB605
 PATHOLOGIST(S): WALKER, HARRY, JOHNSON, TOM
 STUDY START DATE: 10-DEC-86

ANIMAL NUMBER: 86D0906
 DATE OF DEATH: 12-MAR-87

SEX: FEMALE
 DOSE GROUP: 1
 SACRIFICE STATUS: FINAL SACRIFICE
 STUDY WEEK OF DEATH: 14
 TERMINAL BODY WEIGHT: 307.00 (GMS)

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

<< P A T H O L O G Y O B S E R V A T I O N S >>
 KEYWORDS / DISTRIBUTION (SEVERITY) GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

LIVER *GROSS: ABNORMAL COLOR
 *MICRO: NONE

1X5MM LINEAR B'ACK AREA.

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Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

CORRELATION OF GROSS AND MICROSCOPIC FINDINGS
 STUDY NUMBER: 2GLP8605
 PATHOLOGIST(S): WALKER, HARRY

STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 8600829
 DATE OF DEATH: 07-JAN-87

SEX: FEMALE
 DOSE GROUP: 2
 SACRIFICE STATUS: INTERIM SACRIFICE 2

STUDY DAY OF DEATH: 29
 STUDY WEEK OF DEATH: 5
 TERMINAL BODY WEIGHT: 231.00 (GMS)

<< P A T H O L O G Y O B S E R V A T I O N S >>
 GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

ORGAN NAME KEYWORDS / DISTRIBUTION (SEVERITY)

OVARIES
 *GROSS: PARA-OVARIAN CYST(S)
 *MICRO: MULTI-FOCAL(MODERATE)

LEFT, 1CM DIAMEIER.
 PARA-OVARIAN CYST(S)

Pathology Annex B (cont.)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

CORRELATION OF GROSS AND MICROSCOPIC FINDINGS
 STUDY NUMBER: 2GLP8605
 PATHOLOGIST(S): WALKER, HARRY, JOHNSON, TOM
 STUDY START DATE: 10-DEC-86

ANIMAL NUMBER: 86D0838
 DATE OF DEATH: 11-MAR-87

SEX: FEMALE
 DOSE GROUP: 2
 SACRIFICE STATUS: FINAL SACRIFICE

STUDY DAY OF DEATH: 92
 STUDY WEEK OF DEATH: 14
 TERMINAL BODY WEIGHT: 279.00 (GMS)

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

KEYWORDS / DISTRIBUTION (SEVERITY) P A T H O L O G Y O B S E R V A T I O N S >>
 GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

ADRENAL *GROSS: (TRACE) GROWTH(S) / MASS(ES) 3X3MM BROWN NODULE ON THE RIGHT ADRENAL.
 *MICRO: NONE

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH CORRELATION OF GROSS AND MICROSCOPIC FINDINGS PRINTED: 08-DEC-88
DIV OF RES SUPP, PATH SERV GP STUDY NUMBER: 26LP8605 PAGE: 1
PRESIDIO OF SAN FRANCISCO, CA 94129 PATHOLOGIST(S): WALKER, HARRY
SPECIES: RAT/SPRAGUE-DAWLEY STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 8600784 SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 381.00 (GMS)

ORGAN NAME KEYWORDS / DISTRIBUTION (SEVERITY) GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS
SPLEEN << P A T H O L O G Y O B S E R V A T I O N S >>

*GROSS: (MARKED) ENLARGED (SPLENOHEGALY) THE SPLEEN WAS ENLARGED BY A FACTOR OF FOUR.
(MODERATE) FIBROUS ADHESION(S) NUMEROUS OMENTAL ADHESIONS ARE WRAPPED AROUND THE SPLEEN
AND EXTEND TO THE LEFT KIDNEY.
*MICRO: MULTI-FOCAL(MODERATE) NECROGRANULOMA

Appendix O (cont.): PATHOLOGY

| | | |
|--------------------------------------|---|---|
| LETTERMAN ARMY INSTITUTE OF RESEARCH | CORRELATION OF GROSS AND MICROSCOPIC FINDINGS | PRINTED: 18-NOV-88 |
| DIV OF RES SUPP, PATH SERV GP | STUDY NUMBER: 2GLP8605 | PAGE: 80 |
| PRESIDIO OF SAN FRANCISCO, CA 94129 | PATHOLOGIST(S): WALKER, HARRY, JOHNSON, TOM | |
| SPECIES: RAT/SPRAGUE-DAWLEY | STUDY START DATE: 10-DEC-86 | STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING |
| ANIMAL NUMBER: 8600779 | SEX: FEMALE | DOSE GROUP: 6 |
| DATE OF DEATH: 07-JAN-87 | STUDY DAY OF DEATH: 29 | STUDY WEEK OF DEATH: 5 |
| | | SACRI E STATUS: INTERIM SACRIFICE 2 |
| | | TERMINAL BODY WEIGHT: 289.00 (GMS) |
| ORGAN NAME | KEYWORDS / DISTRIBUTION (SEVERITY) | GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS |
| SKIN | << P A T H O L O G Y O B S E R V A T I O N S >> | PARTIAL, RIGHT SHOULDER. |
| | | *GROSS: (MILD) ALOPECIA |
| | | *MICRO: NONE |

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 PRESIDIO OF SAN FRANCISCO, CA 94129
 SPECIES: RAT/SPRAGUE-DAWLEY

CORRELATION OF GROSS AND MICROSCOPIC FINDINGS
 STUDY NUMBER: 2GLP8605
 PATHOLOGIST(S): WALKER, HARRY, JOHNSON, TOM
 STUDY START DATE: 10-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 8600798
 DATE OF DEATH: 11-MAR-87

SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 338.00 (GMS)

ORGAN NAME KEYWORDS / DISTRIBUTION (SEVERITY)
 << P A T H O L O G Y O B S E R V A T I O N S >>
 GROSS FREE-TEXT COMMENTS / HISTOPATHOLOGIC FINDINGS

SKIN
 *GROSS: (MODERATE) ALOPECIA
 *MICRO: NONE

RT FOREARM 1X3CM WITH SCABS. LT FOREARM 1X2CM NO SCAB.

PRINTED: 18-NOV-88
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Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 PRINTED: 02-FEB-89
 PAGE: 5

STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600530/PRETEST= Q8600530 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 550.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | | 1.932 | 0.3513 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | | 19.891 | 3.6165 % | 10.2955 | OK |
| 03-FEB-87 | 92/14 | | 3.046 | 0.5538 % | 1.5766 | LOW |
| 03-FEB-87 | 92/14 | | 1.362 | 0.2476 % | 0.7050 | LOW |
| 03-FEB-87 | 92/14 | | 0.688 | 0.1251 % | 0.3561 | LOW |
| 03-FEB-87 | 92/14 | | 0.036 | 0.0065 % | 0.0186 | LOW |
| 03-FEB-87 | 92/14 | | 3.480 | 0.6327 % | 1.8012 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 LIVER SEVERITY KEYWORDS / PHRASES GROSS FREE-TEXT COMMENTS
 MILD 1X1CM FOCUS MOSTLY WHITE WITH SOME BLACK SURROUNDED BY CONGESTION IS PRESENT IN ONE LOBE. PROBABLY INJECTION SITE FROM EUTHANASIA SOLUTION.

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

- LUNGS NOT SPECIFIED (TRACE)
- INFLAMMATION, CHRONIC, PERIVASCULAR
- THYMUS NOT SPECIFIED (TRACE)
- HEMORRHAGE, MULTIFOCAL
- LIVER NOT SPECIFIED (TRACE)
- INFLAMMATION, CHRONIC, MULTIFOCAL
- ACCESSORY SEX OR NOT SPECIFIED (TRACE)
- INFLAMMATION, CHRONIC, PROSTATE
- PANCREAS

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005

STUDY START DATE: 04-NOV-86

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

PRINTED: 02-FEB-89
 PAGE: 6

ANIMAL NUMBER: 8600530/PRETEST= 08600530 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 550.00 (GMS)

<< M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

PANCREAS NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC

EYES & OPTIC N. OPTIC NERVE ONLY IS MISSING ON BOTH EYES.

SOLEUS NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC

SUBMANDIBULAR LM MISCELLANEOUS TISSUE
 -HYPERPLASIA, LYMPHOID NOT SPECIFIED(MODERATE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 ANIMAL NUMBER: 8600539/PRETEST= 08600539 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 493.00 (GMS)
 STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 9

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 1.854 | 0.3761 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | LIVER | 17.364 | 3.5221 % | 9.3657 | OK |
| 03-FEB-87 | 92/14 | KIDNEY | 2.826 | 0.5732 % | 1.5243 | LOW |
| 03-FEB-87 | 92/14 | HEART | 1.455 | 0.2951 % | 0.7848 | LOW |
| 03-FEB-87 | 92/14 | SPLEEN | 0.779 | 0.1580 % | 0.4202 | LOW |
| 03-FEB-87 | 92/14 | ADRENAL | 0.063 | 0.0128 % | 0.0340 | OK |
| 03-FEB-87 | 92/14 | TESTES | 3.128 | 0.6345 % | 1.6872 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

- THYROID GLANDS NOT SPECIFIED(TRACE)
- CYST
- EXORBITAL LACRIM NOT SPECIFIED(TRACE)
- INFLAMMATION, CHRONIC
- THYMUS NOT SPECIFIED(TRACE)
- HEMORRHAGE, MULTIFOCAL
- PANCREAS NOT SPECIFIED(TRACE)
- INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
DIV OF RES SUPP, PATH SERV GP
SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
STUDY NUMBER: 86005

PRINTED: 02-FEB-89
PAGE: 10

STUDY START DATE: 04-NOV-86

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600539/PRETEST= Q8600539
DATE OF DEATH: 03-FEB-87

SEX: MALE
DOSE GROUP: 1
STUDY WEEK OF DEATH: 14

SACRIFICE STATUS: FINAL SACRIFICE
TERMINAL BODY WEIGHT: 493.00 (GMS)

<< MICROSCOPIC TISSUE OBSERVATIONS >>
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

MAMMARY GLAND

TISSUE IS MISSING

EYES & OPTIC N.

OPTIC NERVES ONLY ARE MISSING ON BOTH EYES.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 12

INDIVIDUAL ANIMAL DATA REPORT
 ANIMAL NUMBER: 8600543/PRETEST= Q8600543 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 423.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-DEC-86 | 30/5 | BRAIN | 1.999 | 0.4726 % | 1.0000 | LOW |
| 03-DEC-86 | 30/5 | LIVER | 22.138 | 5.2336 % | 11.0745 | HIGH |
| 03-DEC-86 | 30/5 | KIDNEY | 2.721 | 0.6433 % | 1.3612 | OK |
| 03-DEC-86 | 30/5 | HEART | 1.320 | 0.3121 % | 0.6603 | OK |
| 03-DEC-86 | 30/5 | SPLEEN | 0.866 | 0.2047 % | 0.4332 | OK |
| 03-DEC-86 | 30/5 | ADRENAL | 0.038 | 0.0090 % | 0.0190 | OK |
| 03-DEC-86 | 30/5 | TESTES | 2.946 | 0.6965 % | 1.4737 | LOW |

<< ORGAN WEIGHTS >>
 << GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

HARDERIAN GLAND NOT SPECIFIED (TRACE)
 -INFLAMMATION, CHRONIC
 MAMMARY GLAND TISSUE IS MISSING
 EYES & OPTIC N. OPTIC NERVE IS NOT PRESENT ON A OR B.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 PRINTED: 02-FEB-89
 PAGE: 13

INDIVIDUAL ANIMAL DATA REPORT
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600557/PRETEST= Q8600557 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 581.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | | 2.069 | 0.3561 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | | 21.695 | 3.7341 % | 10.4857 | OK |
| 03-FEB-87 | 92/14 | | 3.603 | 0.6201 % | 1.7414 | OK |
| 03-FEB-87 | 92/14 | | 1.446 | 0.2489 % | 0.6989 | LOW |
| 03-FEB-87 | 92/14 | | 0.906 | 0.1559 % | 0.4379 | LOW |
| 03-FEB-87 | 92/14 | | 0.047 | 0.0081 % | 0.0227 | OK |
| 03-FEB-87 | 92/14 | | 3.409 | 0.5867 % | 1.6477 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

THYROID GLANDS NOT SPECIFIED(TRACE)
 -CYST
 EXORBITAL LACRIM NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC
 KIDNEY NOT SPECIFIED(TRACE)
 -NEPHROPATHY
 PANCREAS NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86

PRINTED: 26-MAR-90
 PAGE: 1

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600566/PRETEST= 08600566
 DATE OF DEATH: 03-FEB-87

SEX: MALE
 DOSE GROUP: 1
 SACRIFICE STATUS: FINAL SACRIFICE

STUDY DAY OF DEATH: 92
 STUDY WEEK OF DEATH: 14
 TERMINAL BODY WEIGHT: 593.00 (GMS)

DATE DAY/WEEK OF STUDY

ORGAN NAME

ABSOLUTE ORGAN WEIGHT (GMS)

RELATIVE % OF BODY WEIGHT

ORGAN TO BRAIN WEIGHT RATIO

ORGAN STATUS

03-FEB-87 92/14 BRAIN 2.063 0.3479 % 1.0000 LOW
 03-FEB-87 92/14 LIVER 18.920 3.1906 % 9.1711 OK
 03-FEB-87 92/14 KIDNEY 3.648 0.6152 % 1.7683 OK
 03-FEB-87 92/14 HEART 1.584 0.2671 % 0.7678 LOW
 03-FEB-87 92/14 SPLEEN 0.620 0.1046 % 0.3005 LOW
 03-FEB-87 92/14 ADRENAL 0.052 0.0088 % 0.0252 OK
 03-FEB-87 92/14 TESTES 2.728 0.4600 % 1.3223 LOW

<< GROSS ORGAN OBSERVATIONS >>

ORGAN NAME

KEYWORDS / PHRASES

SEVERITY

GROSS FREE-TEXT COMMENTS

WHOLE BODY

NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>

TISSUE / HISTOPATHOLOGIC FINDINGS

DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

ACCESSORY SEX OR

-INFLAMMATION, CHRONIC, PROSTATE

PANCREAS

-INFLAMMATION, CHRONIC

SOLEUS

-INFLAMMATION, CHRONIC

NOT SPECIFIED (TRACE)

NOT SPECIFIED (TRACE)

NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

PRINTED: 02-FEB-89
 PAGE: 18

ANIMAL NUMBER: 8600577/PRETEST= Q8600577 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 641.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 1.927 | 0.3006 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 22.835 | 3.5624 % | 11.8500 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 3.846 | 0.6000 % | 1.9958 | OK |
| 05-FEB-87 | 94/14 | HEART | 1.628 | 0.2540 % | 0.8468 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 0.744 | 0.1161 % | 0.3861 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.057 | 0.0089 % | 0.0296 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.558 | 0.5551 % | 1.8464 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

PARATHYROID TISSUE IS MISSING
 LUNGS NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC, FOCAL
 ACCESSORY SEX OR NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC, PROSTATE
 PANCREAS NOT SPECIFIED(MILD)
 -INFLAMMATION, CHRONIC
 -ACINAR (EXOCRINE) ATROPHY NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
DIV OF RES SUPP, PATH SERV GP
SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
STUDY NUMBER: 86005
STUDY START DATE: 04-NOV-86

PRINTED: 02-FEB-89
PAGE: 19

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600577/PRETEST= 08600577 SEX: MALE
DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94

DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 641 00 (GMS)

<< M I C R O S C O P I C T I S S U E
TISSUE / HISTOPATHOLOGIC FINDINGS

O B S E R V A T I O N S >>
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SKIN

..... TISSUE IS MISSING

MAMMARY GLAND

..... TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 ANIMAL NUMBER: 8600618/PRETEST= 08600618 SEX: MALE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94
 STUDY START DATE: 04-NOV-86
 DOSE GROUP: 1
 STUDY WEEK OF DEATH: 14
 SACRIFICE STATUS: FINAL SACRIFICE
 TERMINAL BODY WEIGHT: 569.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

PRINTED: 02-FEB-89
 PAGE: 25

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 2.002 | 0.3518 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 17.993 | 3.1622 % | 8.9875 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 3.101 | 0.5450 % | 1.5490 | LOW |
| 05-FEB-87 | 94/14 | HEART | 1.594 | 0.2801 % | 0.7962 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 0.575 | 0.1011 % | 0.2872 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.047 | 0.0083 % | 0.0235 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.141 | 0.5520 % | 1.5689 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

THYROID GLANDS -CYST NOT SPECIFIED(TRACE)
 SOLEUS -INFLAMMATION,ACUTE NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600620/PRETEST= Q8600620 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 396.00 (GMS)
 PRINTED: 13-APR-90
 PAGE: 1

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-DEC-86 | 30/5 | BRAIN | 1.823 | 0.4604 % | 1.0000 | LOW |
| 03-DEC-86 | 30/5 | LIVER | 17.809 | 4.4972 % | 9.7691 | HIGH |
| 03-DEC-86 | 30/5 | KIDNEY | 2.560 | 0.6465 % | 1.4043 | OK |
| 03-DEC-86 | 30/5 | HEART | 1.460 | 0.3687 % | 0.8009 | OK |
| 03-DEC-86 | 30/5 | SPLEEN | 0.745 | 0.1881 % | 0.4087 | LOW |
| 03-DEC-86 | 30/5 | ADRENAL | 0.061 | 0.0154 % | 0.0335 | OK |
| 03-DEC-86 | 30/5 | TESTES | 3.043 | 0.7684 % | 1.6692 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 ORGAN NAME KEYWORDS / PHRASES
 EYES & OPTIC N. ONE EYE NOT PRESENT IN ANIMAL PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

EXORBITAL LACRIM NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC
 ACCESSORY SEX OR ONLY THE EPIDIDYMUS FOR THIS RAT WAS MISSING
 -ATROPHY, PROSTATE NOT SPECIFIED(TRACE)
 MAMMARY GLAND TISSUE IS MISSING
 EYES & OPTIC N. TISSUE IS MISSING
 ONE EYE WAS NOT PRESENT IN THIS ANIMAL AT THE TIME OF NECROPSY.
 SEE LAIR FORM 54 FOR AN EXPLANATION.
 OPTIC NERVE IS NOT PRESENT ON SLIDE 19A.
 SOLEUS

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005

STUDY START DATE: 04-NOV-86

ANIMAL NUMBER: 8600620/PRETEST= 08600620 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 396.00 (GMS)

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

PRINTED: 13-APR-90
 PAGE: 2

TISSUE / HISTOPATHOLOGIC FINDINGS

<< M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SOLEUS NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
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ANIMAL NUMBER: 8600635/PRETEST= 086D0635 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 576.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 2.059 | 0.3575 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 20.004 | 3.4729 % | 9.7154 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 2.780 | 0.4826 % | 1.3502 | LOW |
| 05-FEB-87 | 94/14 | HEART | 1.549 | 0.2689 % | 0.7523 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 0.695 | 0.1207 % | 0.3375 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.050 | 0.0087 % | 0.0243 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.314 | 0.5753 % | 1.6095 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

HARDERIAN GLAND
 -INFLAMMATION, CHRONIC NOT SPECIFIED (TRACE)

EXORBITAL LACRIM
 -INFLAMMATION, CHRONIC NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 ANIMAL NUMBER: 86D0680/PRETEST= Q86D0680 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 406.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-DEC-86 | 30/5 | BRAIN | 1.945 | 0.4791 % | 1.0000 | LOW |
| 03-DEC-86 | 30/5 | LIVER | 18.364 | 4.5232 % | 9.4416 | HIGH |
| 03-DEC-86 | 30/5 | KIDNEY | 3.067 | 0.7554 % | 1.5769 | OK |
| 03-DEC-86 | 30/5 | HEART | 1.706 | 0.4202 % | 0.8771 | OK |
| 03-DEC-86 | 30/5 | SPLEEN | 0.698 | 0.1719 % | 0.3589 | LOW |
| 03-DEC-86 | 30/5 | ADRENAL | 0.051 | 0.0126 % | 0.0262 | OK |
| 03-DEC-86 | 30/5 | TESTES | 2.859 | 0.7042 % | 1.4699 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 EYES & OPTIC N. TISSUE IS MISSING
 OPTIC NERVES ARE NOT PRESENT ON BOTH EYES.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 86D0681/PRETEST= 086D0681 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 02-DEC-86 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 368.00 (GMS)

PRINTED: 02-FEB-89
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| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 02-DEC-86 | 29/5 | BRAIN | 1.972 | 0.5359 % | 1.0000 | OK |
| 02-DEC-86 | 29/5 | LIVER | 15.707 | 4.2682 % | 7.9650 | HIGH |
| 02-DEC-86 | 29/5 | KIDNEY | 2.684 | 0.7293 % | 1.3611 | OK |
| 02-DEC-86 | 29/5 | HEART | 1.245 | 0.3383 % | 0.6313 | OK |
| 02-DEC-86 | 29/5 | SPLEEN | 0.617 | 0.1677 % | 0.3129 | LOW |
| 02-DEC-86 | 29/5 | ADRENAL | 0.059 | 0.0160 % | 0.0299 | OK |
| 02-DEC-86 | 29/5 | TESTES | 2.545 | 0.6916 % | 1.2906 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SUB-LINGUAL GLND
 -HYPERPLASIA, DUCT NOT SPECIFIED (TRACE)

KIDNEY
 -INFLAMMATION, CHRONIC NOT SPECIFIED (TRACE)

ACCESSORY SEX OR
 -INFLAMMATION, ACUTE NOT SPECIFIED (TRACE)

EYES & OPTIC N. TISSUE IS MISSING
 THE OPTIC NERVES ARE NOT PRESENT ON BOTH EYES.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600688/PRETEST# Q8600688 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 477.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 1.982 | 0.4155 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 15.281 | 3.2036 % | 7.7099 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 2.863 | 0.6002 % | 1.4445 | OK |
| 05-FEB-87 | 94/14 | HEART | 1.562 | 0.3275 % | 0.7881 | OK |
| 05-FEB-87 | 94/14 | SPLEEN | 0.671 | 0.1407 % | 0.3385 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.048 | 0.0101 % | 0.0242 | OK |
| 05-FEB-87 | 94/14 | TESTES | 2.935 | 0.6153 % | 1.4808 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

HARDERIAN GLAND
 -INFLAMMATION, CHRONIC NOT SPECIFIED (TRACE)
 EXORBITAL LACRIM
 -INFLAMMATION, CHRONIC NOT SPECIFIED (TRACE)
 EYES & OPTIC N. TISSUE IS MISSING
 OPTIC NERVE ONLY IS MISSING ON 19B.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 INDIVIDUAL ANIMAL DATA REPORT
 PRINTED: 02-FEB-89
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ANIMAL NUMBER: 8600706/PRETEST= Q8600706 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 479.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 1.985 | 0.4144 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 17.447 | 3.6424 % | 8.7894 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 3.082 | 0.6434 % | 1.5526 | OK |
| 05-FEB-87 | 94/14 | HEART | 1.454 | 0.3035 % | 0.7325 | OK |
| 05-FEB-87 | 94/14 | SPLEEN | 0.623 | 0.1301 % | 0.3139 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.043 | 0.0090 % | 0.0217 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.209 | 1.6699 % | 1.6166 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

EXORBITAL LACRIM NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC

HEART NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC

MAMMARY GLAND TISSUE IS MISSING

EX DIGITORUM LOW TISSUE IS MISSING

Appendix C (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 ANIMAL NUMBER: 86D0707/PRETEST= Q86D0707 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 524.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 2.116 | 0.4038 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 16.276 | 3.1061 % | 7.6919 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 3.046 | 0.5813 % | 1.4395 | LOW |
| 05-FEB-87 | 94/14 | HEART | 1.939 | 0.3700 % | 0.9164 | OK |
| 05-FEB-87 | 94/14 | SPLEEN | 0.847 | 0.1616 % | 0.4003 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.050 | 0.0095 % | 0.0236 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.205 | 0.6116 % | 1.5147 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

THYMUS TISSUE IS MISSING
 ACCESSORY SEX OR NOT SPECIFIED(MILD)
 -INFLAMMATION, CHRONIC, PROSTATE
 SOLEUS NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 86D0712/PRETEST= Q86D0712 SEX: MALE DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 02-DEC-86 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 382.00 (GMS)
 PRINTED: 02-FEB-89
 PAGE: 41

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 02-DEC-86 | 29/5 | BRAIN | 2.032 | 0.5319 % | 1.0000 | OK |
| 02-DEC-86 | 29/5 | LIVER | 14.627 | 3.8291 % | 7.1983 | OK |
| 02-DEC-86 | 29/5 | KIDNEY | 3.176 | 0.8314 % | 1.5630 | OK |
| 02-DEC-86 | 29/5 | HEART | 1.193 | 0.3123 % | 0.5871 | OK |
| 02-DEC-86 | 29/5 | SPLEEN | 0.788 | 0.2063 % | 0.3878 | OK |
| 02-DEC-86 | 29/5 | ADRENAL | 0.787 | 0.2060 % | 0.3873 | HIGH |
| 02-DEC-86 | 29/5 | TESTES | 3.168 | 0.8293 % | 1.5591 | HIGH |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

EXORBITAL LACRIM
 -INFLAMMATION, CHRONIC
 -ATROPHY
 NOT SPECIFIED (TRACE)

EYES & OPTIC N.
 TISSUE IS MISSING
 OPTIC NERVE IS MISSING ON BOTH A AND B.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 ANIMAL NUMBER: 8600506/PRETEST= Q8600506 SEX: MALE
 DATE OF DEATH: 02-DEC-86 STUDY DAY OF DEATH: 29
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 DOSE GROUP: 2
 SACRIFICE STATUS: INTERIM SACRIFICE 2
 STUDY WEEK OF DEATH: 5
 TERMINAL BODY WEIGHT: 399.00 (GMS)

PRINTED: 02-FEB-89
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| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 02-DEC-86 | 29/5 | BRAIN | 1.857 | 0.4654 % | 1.0000 | LOW |
| 02-DEC-86 | 29/5 | LIVER | 17.438 | 4.3704 % | 9.3904 | HIGH |
| 02-DEC-86 | 29/5 | KIDNEY | 3.080 | 0.7719 % | 1.6586 | OK |
| 02-DEC-86 | 29/5 | HEART | 1.295 | 0.3246 % | 0.6974 | OK |
| 02-DEC-86 | 29/5 | SPLEEN | 0.736 | 0.1845 % | 0.3963 | LOW |
| 02-DEC-86 | 29/5 | ADRENAL | 0.061 | 0.0153 % | 0.0328 | OK |
| 02-DEC-86 | 29/5 | TESTES | 3.064 | 0.7679 % | 1.6500 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER NOT SPECIFIED(TRACE)
 -NECROSIS, FOCAL
 SOLEUS NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 PRINTED: 06-FEB-89
 PAGE: 1
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600507/PRETEST= Q8600507 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 02-DEC-86 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 424.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 02-DEC-86 | 29/5 | BRAIN | 1.978 | 0.4665 % | 1.0000 | LOW |
| 02-DEC-86 | 29/5 | LIVER | 15.269 | 3.6012 % | 7.7194 | OK |
| 02-DEC-86 | 29/5 | KIDNEY | 2.959 | 0.6979 % | 1.4960 | OK |
| 02-DEC-86 | 29/5 | HEART | 1.576 | 0.3717 % | 0.7968 | OK |
| 02-DEC-86 | 29/5 | SPLEEN | 0.852 | 0.2009 % | 0.4307 | OK |
| 02-DEC-86 | 29/5 | ADRENAL | 0.068 | 0.0160 % | 0.0344 | OK |
| 02-DEC-86 | 29/5 | TESTES | 0.066 | 0.0156 % | 0.0334 | EXCLUDE |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600531/PRETEST= Q8600531 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 524.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN | WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------|--------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 1.996 | 0.3809 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | LIVER | 18.574 | 3.5447 % | 9.3056 | OK |
| 03-FEB-87 | 92/14 | KIDNEY | 3.266 | 0.6233 % | 1.6363 | OK |
| 03-FEB-87 | 92/14 | HEART | 1.485 | 0.2834 % | 0.7440 | LOW |
| 03-FEB-87 | 92/14 | SPLEEN | 0.763 | 0.1456 % | 0.3823 | LOW |
| 03-FEB-87 | 92/14 | ADRENAL | 0.083 | 0.0158 % | 0.0416 | OK |
| 03-FEB-87 | 92/14 | TESTES | 3.118 | 0.5950 % | 1.5621 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 ORGAN NAME
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 TISSUE / HISTOPATHOLOGIC FINDINGS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86

PRINTED: 02-FEB-89
 PAGE: 50

ANIMAL NUMBER: 8600548/PREIEST= 08600548 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 02-DEC-86 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 373.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

<< ORGAN WEIGHTS >>
 DATE DAY/WEEK OF STUDY ORGAN NAME ABSOLUTE ORGAN WEIGHT (GMS) RELATIVE % OF BODY WEIGHT ORGAN TO BRAIN WEIGHT RATIO ORGAN STATUS

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 02-DEC-86 | 29/5 | BRAIN | 1.787 | 0.4791 % | 1.0000 | LOW |
| 02-DEC-86 | 29/5 | LIVER | 16.138 | 4.3265 % | 9.0308 | HIGH |
| 02-DEC-86 | 29/5 | KIDNEY | 2.913 | 0.7810 % | 1.6301 | OK |
| 02-DEC-86 | 29/5 | HEART | 1.429 | 0.3831 % | 0.7997 | OK |
| 02-DEC-86 | 29/5 | SPLEEN | 0.714 | 0.1914 % | 0.3996 | LOW |
| 02-DEC-86 | 29/5 | ADRENAL | 0.064 | 0.0172 % | 0.0358 | OK |
| 02-DEC-86 | 29/5 | TESTES | 0.067 | 0.0180 % | 0.0375 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 ANIMAL NUMBER: 8600600/PRETEST= Q8600600 SEX: MALE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92
 STUDY START DATE: 04-NOV-86 DOSE GROUP: 2
 STUDY WEEK OF DEATH: 14
 SACRIFICE STATUS: FINAL SACRIFICE
 TERMINAL BODY WEIGHT: 556.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

PRINTED: 02-FEB-89
 PAGE: 54

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 2.075 | 0.3732 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | LIVER | 21.319 | 3.8344 % | 10.2742 | OK |
| 03-FEB-87 | 92/14 | KIDNEY | 3.431 | 0.6171 % | 1.6535 | OK |
| 03-FEB-87 | 92/14 | HEART | 1.442 | 0.2594 % | 0.6949 | LOW |
| 03-FEB-87 | 92/14 | SPLEEN | 0.811 | 0.1459 % | 0.3908 | LOW |
| 03-FEB-87 | 92/14 | ADRENAL | 0.050 | 0.0090 % | 0.0241 | OK |
| 03-FEB-87 | 92/14 | TESTES | 3.286 | 0.5910 % | 1.5836 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 KIDNEY NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 ANIMAL NUMBER: 86D0606/PRETEST= Q860606 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 02-DEC-86 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 388.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 02-DEC-86 | 29/5 | | BRAIN | 2.105 | 0.5425 % | 1.0000 | OK |
| 02-DEC-86 | 29/5 | | LIVER | 17.279 | 4.4534 % | 8.2086 | HIGH |
| 02-DEC-86 | 29/5 | | KIDNEY | 2.697 | 0.6951 % | 1.2812 | OK |
| 02-DEC-86 | 29/5 | | HEART | 2.117 | 0.5456 % | 1.0057 | OK |
| 02-DEC-86 | 29/5 | | SPLEEN | 0.751 | 0.1936 % | 0.3568 | LOW |
| 02-DEC-86 | 29/5 | | ADRENAL | 0.069 | 0.0178 % | 0.0328 | OK |
| 02-DEC-86 | 29/5 | | TESTES | 2.727 | 0.7028 % | 1.2955 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SOLEUS NOT SPECIFIED (TRACE)
 -INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005

PRINTED: 02-FEB-89
 PAGE: 57

STUDY START DATE: 04-NOV-86

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600625/PRETEST= 08600625 SEX: MALE
 DOSE GROUP: 2

SACRIFICE STATUS: FINAL SACRIFICE

DATE OF DEATH: 03-FEB-87

STUDY DAY OF DEATH: 92

STUDY WEEK OF DEATH: 14

TERMINAL BODY WEIGHT: 563.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 2.251 | 0.3998 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | LIVER | 17.562 | 3.1194 % | 7.8019 | OK |
| 03-FEB-87 | 92/14 | KIDNEY | 3.124 | 0.5549 % | 1.3878 | LOW |
| 03-FEB-87 | 92/14 | HEART | 1.680 | 0.2984 % | 0.7463 | LOW |
| 03-FEB-87 | 92/14 | SPLEEN | 0.835 | 0.1483 % | 0.3709 | LOW |
| 03-FEB-87 | 92/14 | ADRENAL | 0.046 | 0.0082 % | 0.0204 | OK |
| 03-FEB-87 | 92/14 | TESTES | 1.882 | 0.3343 % | 0.8361 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 TESTES ATROPHIC / SMALL, UNILATERALLY MILD RIGHT TESTICLE. 0.7X0.5CM.

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 LUNGS - INFLAMMATION, CHRONIC, PERIVASCULAR NOT SPECIFIED (TRACE)
 TESTES - UNILATERAL ORGAN ATROPHY DIFFUSE (MARKED)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600628/PRETEST= 08600628 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 414.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 2.009 | 0.4853 % | 1.0000 | OK |
| 03-FEB-87 | 92/14 | LIVER | 69.647 | 16.8229 % | 34.6675 | HIGH |
| 03-FEB-87 | 92/14 | KIDNEY | 3.691 | 0.8915 % | 1.8372 | OK |
| 03-FEB-87 | 92/14 | HEART | 1.367 | 0.3302 % | 0.6804 | OK |
| 03-FEB-87 | 92/14 | SPLEEN | 3.925 | 0.9481 % | 1.9537 | HIGH |
| 03-FEB-87 | 92/14 | ADRENAL | 0.086 | 0.0208 % | 0.0428 | HIGH |
| 03-FEB-87 | 92/14 | TESTES | 3.289 | 0.7944 % | 1.6371 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 ENLARGED MODERATE THE LIVER WAS ABOUT THREE TIMES NORMAL SIZE.
 DISSEMINATED FOCI MILD MULTIFOCAL AREAS APPEAR TO BE HEMORRHAGES.
 HEMORRHAGE(S) PRESENT MULTIPLE LYMPH NODES ARE INVOLVED.
 ENLARGED (SPLENOMEGALY) PRESENT 1X5CM

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 SPLEEN (PRESENT)
 -M- LYMPHOMA / LYMPHOSARCOMA
 MESENTERIC LYM N (PRESENT)
 -M- LYMPHOMA / LYMPHOSARCOMA
 LIVER (PRESENT)
 -M- LYMPHOMA / LYMPHOSARCOMA

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 INDIVIDUAL ANIMAL DATA REPORT
 PRINTED: 02-FEB-89
 PAGE: 59
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600634/PRETEST= Q8600634 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 521.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 2.165 | 0.4155 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 23.246 | 4.4618 % | 10.7372 | HIGH |
| 05-FEB-87 | 94/14 | KIDNEY | 3.454 | 0.6630 % | 1.5954 | OK |
| 05-FEB-87 | 94/14 | HEART | 1.632 | 0.3132 % | 0.7538 | OK |
| 05-FEB-87 | 94/14 | SPLEEN | 0.828 | 0.1589 % | 0.3824 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.045 | 0.0086 % | 0.0208 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.652 | 0.7010 % | 1.6868 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED (TRACE)
 -NEPHROPATHY
 SOLEUS NOT SPECIFIED (MILD)
 -INFLAMMATION, SUBACUTE

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 PRINTED: 02-FEB-89
 PAGE: 61

ANIMAL NUMBER: 8600666/PRETEST= 08600666 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 518.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 2.113 | 0.4079 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 16.077 | 3.1037 % | 7.6086 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 3.126 | 0.6035 % | 1.4794 | OK |
| 05-FEB-87 | 94/14 | HEART | 1.759 | 0.3396 % | 0.8325 | OK |
| 05-FEB-87 | 94/14 | SPLEEN | 0.606 | 0.1170 % | 0.2868 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.049 | 0.0095 % | 0.0232 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.134 | 0.6050 % | 1.4832 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SOLEUS NOT SPECIFIED(TRACE)
 -INFLAMMATION,CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 PRINTED: 02-FEB-89
 PAGE: 62

INDIVIDUAL ANIMAL DATA REPORT
 ANIMAL NUMBER: 8600678/PRETEST= Q8600678 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 546.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 2.128 | 0.3897 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 20.159 | 3.6921 % | 9.4732 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 3.148 | 0.5766 % | 1.4793 | LOW |
| 05-FEB-87 | 94/14 | HEART | 1.415 | 0.2592 % | 0.6649 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 0.733 | 0.1342 % | 0.3445 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.051 | 0.0093 % | 0.0240 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.181 | 0.5826 % | 1.4948 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
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ANIMAL NUMBER: 86D0694/PRETEST= 086D0694 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 540.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 2.065 | 0.3824 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 17.137 | 3.1735 % | 8.2988 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 3.328 | 0.6163 % | 1.6116 | OK |
| 05-FEB-87 | 94/14 | HEART | 1.574 | 0.2915 % | 0.7622 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 0.613 | 0.1135 % | 0.2969 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.043 | 0.0080 % | 0.0208 | LOW |
| 05-FEB-87 | 94/14 | TESTES | 3.666 | 0.6789 % | 1.7753 | LOW |

ORGAN NAME
 WHOLE BODY
 GROSS ORGAN OBSERVATIONS
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS
 MICROSCOPIC TISSUE OBSERVATIONS
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LUNGS
 INFLAMMATION, CHRONIC, FOCAL
 NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 ANIMAL NUMBER: 8600731/PRETEST= Q8600731 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 541.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 1.950 | 0.3604 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 17.993 | 3.3259 % | 9.2272 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 3.846 | 0.7109 % | 1.9723 | OK |
| 05-FEB-87 | 94/14 | HEART | 1.341 | 0.2479 % | 0.6877 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 0.845 | 0.1562 % | 0.4333 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.050 | 0.0092 % | 0.0256 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.288 | 0.6078 % | 1.6862 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 GROSS KEYWORDS / PHRASES: SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS: DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY
 -NEPHROPATHY
 -DILATION, PELVIS
 NOT SPECIFIED(TRACE)
 NOT SPECIFIED(MILD)

SOLEUS
 -INFLAMMATION, CHRONIC
 NOT SPECIFIED(MILD)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600733/PRETEST= Q86D0733 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 02-DEC-86 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 385.00 (GMS)

PRINTED: 02-FEB-89
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| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 02-DEC-86 | 29/5 | BRAIN | 2.127 | 0.5525 % | 1.0000 | OK |
| 02-DEC-86 | 29/5 | LIVER | 15.761 | 4.0938 % | 7.4100 | HIGH |
| 02-DEC-86 | 29/5 | KIDNEY | 3.064 | 0.7958 % | 1.4405 | OK |
| 02-DEC-86 | 29/5 | HEART | 1.321 | 0.3431 % | 0.6211 | OK |
| 02-DEC-86 | 29/5 | SPLEEN | 0.766 | 0.1990 % | 0.3601 | LOW |
| 02-DEC-86 | 29/5 | ADRENAL | 0.070 | 0.0182 % | 0.0329 | OK |
| 02-DEC-86 | 29/5 | TESTES | 3.289 | 0.8543 % | 1.5463 | HIGH |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
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 ANIMAL NUMBER: 86D0734/PRETEST= 086D0734 SEX: MALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 523.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | | BRAIN | 1.944 | 0.3717 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | | LIVER | 17.615 | 3.3681 % | 9.0612 | OK |
| 05-FEB-87 | 94/14 | | KIDNEY | 3.008 | 0.5751 % | 1.5473 | LOW |
| 05-FEB-87 | 94/14 | | HEART | 1.511 | 0.2889 % | 0.7773 | LOW |
| 05-FEB-87 | 94/14 | | SPLEEN | 0.903 | 0.1727 % | 0.4645 | LOW |
| 05-FEB-87 | 94/14 | | ADRENAL | 0.052 | 0.0099 % | 0.0267 | OK |
| 05-FEB-87 | 94/14 | | TESTES | 3.377 | 0.6457 % | 1.7371 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SOLEUS NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 PRINTED: 02-FEB-89
 PAGE: 70
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600510/PRETEST= 08600510 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 02-DEC-86 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 440.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 02-DEC-86 | 29/5 | BRAIN | 1.805 | 0.4102 % | 1.0000 | LOW |
| 02-DEC-86 | 29/5 | LIVER | 19.288 | 4.3836 % | 10.6859 | HIGH |
| 02-DEC-86 | 29/5 | KIDNEY | 3.051 | 0.6934 % | 1.6903 | OK |
| 02-DEC-86 | 29/5 | HEART | 1.313 | 0.2984 % | 0.7274 | LOW |
| 02-DEC-86 | 29/5 | SPLEEN | 0.770 | 0.1750 % | 0.4266 | LOW |
| 02-DEC-86 | 29/5 | ADRENAL | 0.046 | 0.0105 % | 0.0255 | OK |
| 02-DEC-86 | 29/5 | TESTES | 3.070 | 0.6977 % | 1.7008 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LUNGS
 - INFLAMMATION, CHRONIC, FOCAL
 NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 PRINTED: 02-FEB-89
 PAGE: 71
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600511/PRETEST# Q86D0511 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 04-FEB-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 531.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | W E I G H T S >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 04-FEB-87 | 93/14 | BRAIN | | 1.908 | 0.3593 % | 1.0000 | LOW |
| 04-FEB-87 | 93/14 | LIVER | | 17.255 | 3.2495 % | 9.0435 | OK |
| 04-FEB-87 | 93/14 | KIDNEY | | 2.726 | 0.5134 % | 1.4287 | LOW |
| 04-FEB-87 | 93/14 | HEART | | 1.574 | 0.2964 % | 0.8249 | LOW |
| 04-FEB-87 | 93/14 | SPLEEN | | 0.719 | 0.1354 % | 0.3768 | LOW |
| 04-FEB-87 | 93/14 | ADRENAL | | 0.035 | 0.0066 % | 0.0183 | LOW |
| 04-FEB-87 | 93/14 | TESTES | | 3.115 | 0.5866 % | 1.6326 | LOW |

ORGAN NAME << G R O S S O R G A N O B S E R V A T I O N S >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SOLEUS NOT SPECIFIED(TRACE)
 - INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86

PRINTED: 02-FEB-89
 PAGE: 72
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600520/PRETEST= 08600520 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 02-DEC-86 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 437.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 02-DEC-86 | 29/5 | BRAIN | 2.028 | 0.4641 % | 1.0000 | LOW |
| 02-DEC-86 | 29/5 | LIVER | 18.728 | 4.2856 % | 9.2347 | HIGH |
| 02-DEC-86 | 29/5 | KIDNEY | 3.175 | 0.7265 % | 1.5656 | OK |
| 02-DEC-86 | 29/5 | HEART | 1.430 | 0.3272 % | 0.7051 | OK |
| 02-DEC-86 | 29/5 | SPLEEN | 0.782 | 0.1789 % | 0.3856 | LOW |
| 02-DEC-86 | 29/5 | ADRENAL | 0.083 | 0.0190 % | 0.0409 | OK |
| 02-DEC-86 | 29/5 | TESTES | 3.146 | 0.7199 % | 1.5513 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

PRINTED: 02-FEB-89
 PAGE: 73

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600526/PRETEST= Q8600526 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 04-FEB-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 437.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------|---------------------------|-----------------------------|--------------|
| 04-FEB-87 | 93/14 | BRAIN | 2.002 | 0.4581 % | 1.0000 | LOW |
| 04-FEB-87 | 93/14 | LIVER | 14.652 | 3.3529 % | 7.3187 | OK |
| 04-FEB-87 | 93/14 | KIDNEY | 2.570 | 0.5881 % | 1.2837 | LOW |
| 04-FEB-87 | 93/14 | HEART | 1.527 | 0.3494 % | 0.7627 | OK |
| 04-FEB-87 | 93/14 | SPLEEN | 0.539 | 0.1233 % | 0.2692 | LOW |
| 04-FEB-87 | 93/14 | ADRENAL | 0.049 | 0.0112 % | 0.0245 | OK |
| 04-FEB-87 | 93/14 | TESTES | 2.841 | 0.6501 % | 1.4191 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SOLEUS NOT SPECIFIED(TRACE)
 -INFLAMMATION,CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 PRINTED: 02-FEB-89
 PAGE: 76

STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600544/PRETEST= Q8600544 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 04-FEB-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 542.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 04-FEB-87 | 93/14 | | 1.814 | 0.3347 % | 1.0000 | LOW |
| 04-FEB-87 | 93/14 | | 16.969 | 3.1308 % | 9.3545 | OK |
| 04-FEB-87 | 93/14 | | 3.556 | 0.6561 % | 1.9603 | OK |
| 04-FEB-87 | 93/14 | | 1.525 | 0.2814 % | 0.8407 | LOW |
| 04-FEB-87 | 93/14 | | 0.630 | 0.1162 % | 0.3473 | LOW |
| 04-FEB-87 | 93/14 | | 0.077 | 0.0142 % | 0.0424 | OK |
| 04-FEB-87 | 93/14 | | 2.988 | 0.5513 % | 1.6472 | LOW |

ORGAN NAME
 WHOLE BODY
 GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS
 << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 PRINTED: 02-FEB-89
 PAGE: 77

INDIVIDUAL ANIMAL DATA REPORT
 DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 ANIMAL NUMBER: 8600553/PRETEST= Q8600553 SEX: MALE STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 609.00 (GMS)
 DATE OF DEATH: 04-FEB-87 STUDY DAY OF DEATH: 93

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 04-FEB-87 | 93/14 | BRAIN | 2.076 | 0.3409 % | 1.0000 | LOW |
| 04-FEB-87 | 93/14 | LIVER | 21.099 | 3.4645 % | 10.1633 | OK |
| 04-FEB-87 | 93/14 | KIDNEY | 3.168 | 0.5202 % | 1.5260 | LOW |
| 04-FEB-87 | 93/14 | HEART | 1.436 | 0.2358 % | 0.6917 | LOW |
| 04-FEB-87 | 93/14 | SPLEEN | 0.843 | 0.1384 % | 0.4061 | LOW |
| 04-FEB-87 | 93/14 | ADRENAL | 0.067 | 0.0110 % | 0.0323 | OK |
| 04-FEB-87 | 93/14 | TESTES | 3.626 | 0.5954 % | 1.7466 | LOW |

<< ORGAN WEIGHTS >>
 << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005

STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600581/PRETEST= Q8600581 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 04-FEB-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 563.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 04-FEB-87 | 93/14 | BRAIN | 2.114 | 0.3755 % | 1.0000 | LOW |
| 04-FEB-87 | 93/14 | LIVER | 22.364 | 3.9723 % | 10.5790 | OK |
| 04-FEB-87 | 93/14 | KIDNEY | 3.563 | 0.6329 % | 1.6854 | OK |
| 04-FEB-87 | 93/14 | HEART | 1.652 | 0.2934 % | 0.7815 | LOW |
| 04-FEB-87 | 93/14 | SPLEEN | 0.692 | 0.1229 % | 0.3273 | LOW |
| 04-FEB-87 | 93/14 | ADRENAL | 0.053 | 0.0094 % | 0.0251 | OK |
| 04-FEB-87 | 93/14 | TESTES | 3.151 | 0.5597 % | 1.4905 | LOW |

ORGAN NAME
 WHOLE BODY

KEYWORDS / PHRASES
 NO GROSS LESIONS RECOGNIZED.

GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS

TISSUE / HISTOPATHOLOGIC FINDINGS
 MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER
 -INFLAMMATION, CHRONIC, MULTIFOCAL NOT SPECIFIED (TRACE)

KIDNEY
 -NEPHROPATHY NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 PRINTED: 02-FEB-89
 PAGE: 82

STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600583/PRETEST= Q8600583 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 04-FEB-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 650.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 04-FEB-87 | 93/14 | BRAIN | 1.921 | 0.2955 % | 1.0000 | LOW |
| 04-FEB-87 | 93/14 | LIVER | 23.430 | 3.6046 % | 12.1968 | OK |
| 04-FEB-87 | 93/14 | KIDNEY | 4.017 | 0.6180 % | 2.0911 | OK |
| 04-FEB-87 | 93/14 | HEART | 1.762 | 0.2711 % | 0.9172 | LOW |
| 04-FEB-87 | 93/14 | SPLEEN | 0.972 | 0.1495 % | 0.5060 | LOW |
| 04-FEB-87 | 93/14 | ADRENAL | 0.047 | 0.0072 % | 0.0245 | LOW |
| 04-FEB-87 | 93/14 | TESTES | 3.358 | 0.5166 % | 1.7480 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86

PRINTED: 02-FEB-89
 PAGE: 83
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600599/PRETEST= Q8600599 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 02-DEC-86 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 369.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 02-DEC-86 | 29/5 | BRAIN | 2.013 | 0.5455 % | 1.0000 | OK |
| 02-DEC-86 | 29/5 | LIVER | 14.861 | 4.0274 % | 7.3825 | HIGH |
| 02-DEC-86 | 29/5 | KIDNEY | 2.539 | 0.6881 % | 1.2613 | OK |
| 02-DEC-86 | 29/5 | HEART | 1.366 | 0.3702 % | 0.6786 | OK |
| 02-DEC-86 | 29/5 | SPLEEN | 0.650 | 0.1762 % | 0.3229 | LOW |
| 02-DEC-86 | 29/5 | ADRENAL | 0.042 | 0.0114 % | 0.0209 | OK |
| 02-DEC-86 | 29/5 | TESTES | 2.920 | 0.7913 % | 1.4506 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 PRINTED: 02-FEB-89
 PAGE: 84

ANIMAL NUMBER: 8600602/PRETEST= Q8600602 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 02-DEC-86 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 360.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 02-DEC-86 | 29/5 | BRAIN | 1.887 | 0.5242 % | 1.0000 | OK |
| 02-DEC-86 | 29/5 | LIVER | 14.586 | 4.0517 % | 7.7297 | HIGH |
| 02-DEC-86 | 29/5 | KIDNEY | 2.760 | 0.7667 % | 1.4626 | OK |
| 02-DEC-86 | 29/5 | HEART | 1.273 | 0.3536 % | 0.6746 | OK |
| 02-DEC-86 | 29/5 | SPLEEN | 0.539 | 0.1497 % | 0.2856 | LOW |
| 02-DEC-86 | 29/5 | ADRENAL | 0.025 | 0.0069 % | 0.0132 | LOW |
| 02-DEC-86 | 29/5 | TESTES | 2.946 | 0.8183 % | 1.5612 | HIGH |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005

STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 86D0696/PRETEST= Q8600696 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 04-FEB-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 507.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 04-FEB-87 | 93/14 | BRAIN | 1.828 | 0.3606 % | 1.0000 | LOW |
| 04-FEB-87 | 93/14 | LIVER | 15.697 | 3.0961 % | 8.5870 | OK |
| 04-FEB-87 | 93/14 | KIDNEY | 3.154 | 0.6221 % | 1.7254 | OK |
| 04-FEB-87 | 93/14 | HEART | 1.482 | 0.2923 % | 0.8107 | LOW |
| 04-FEB-87 | 93/14 | SPLEEN | 0.702 | 0.1385 % | 0.3840 | LOW |
| 04-FEB-87 | 93/14 | ADRENAL | 0.071 | 0.0140 % | 0.0388 | OK |
| 04-FEB-87 | 93/14 | TESTES | 3.385 | 0.6677 % | 1.8518 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME: KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY: NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SOLEUS
 -INFLAMMATION, CHRONIC NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 95

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 ANIMAL NUMBER: 8600698/PRETEST= Q8600698 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 04-FEB-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 524.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 04-FEB-87 | 93/14 | BRAIN | 2.060 | 0.3931 % | 1.0000 | LOW |
| 04-FEB-87 | 93/14 | LIVER | 16.219 | 3.0952 % | 7.8733 | OK |
| 04-FEB-87 | 93/14 | KIDNEY | 2.948 | 0.5626 % | 1.4311 | LOW |
| 04-FEB-87 | 93/14 | HEART | 1.465 | 0.2796 % | 0.7112 | LOW |
| 04-FEB-87 | 93/14 | SPLEEN | 0.712 | 0.1359 % | 0.3456 | LOW |
| 04-FEB-87 | 93/14 | ADRENAL | 0.071 | 0.0135 % | 0.0345 | OK |
| 04-FEB-87 | 93/14 | TESTES | 3.305 | 0.6307 % | 1.6044 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAY/SPRAGUE-DAWLEY
 PRINTED: 02-FEB-89
 PAGE: 97
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600713/PRETEST= Q8600713 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 02-DEC-86 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 427.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 02-DEC-86 | 29/5 | BRAIN | 2.004 | 0.4693 % | 1.0000 | LOW |
| 02-DEC-86 | 29/5 | LIVER | 20.025 | 4.6897 % | 9.9925 | HIGH |
| 02-DEC-86 | 29/5 | KIDNEY | 3.062 | 0.7171 % | 1.5279 | OK |
| 02-DEC-86 | 29/5 | HEART | 1.514 | 0.3546 % | 0.7555 | OK |
| 02-DEC-86 | 29/5 | SPLEEN | 0.737 | 0.1726 % | 0.3678 | LOW |
| 02-DEC-86 | 29/5 | ADRENAL | 0.059 | 0.0138 % | 0.0294 | OK |
| 02-DEC-86 | 29/5 | TESTES | 2.895 | 0.6780 % | 1.4446 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SOLEUS NOT SPECIFIED (TRACE)
 -INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005

STUDY START DATE: 04-NOV-86

ANIMAL NUMBER: 8600717/PRETEST= 08600717 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 04-FEB-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 574.00 (GMS)

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 04-FEB-87 | 93/14 | BRAIN | 2.300 | 0.4007 % | 1.0000 | LOW |
| 04-FEB-87 | 93/14 | LIVER | 20.136 | 3.5080 % | 8.7548 | OK |
| 04-FEB-87 | 93/14 | KIDNEY | 3.627 | 0.6319 % | 1.5770 | OK |
| 04-FEB-87 | 93/14 | HEART | 1.588 | 0.2767 % | 0.6904 | LOW |
| 04-FEB-87 | 93/14 | SPLEEN | 0.766 | 0.1334 % | 0.3330 | LOW |
| 04-FEB-87 | 93/14 | ADRENAL | 0.043 | 0.0075 % | 0.0187 | LOW |
| 04-FEB-87 | 93/14 | TESTES | 3.369 | 0.5869 % | 1.4648 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 SOLEUS NOT SPECIFIED (TRACE)
 -INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 99
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 ANIMAL NUMBER: 8600723/PRETEST= 08600723 SEX: MALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 04-FEB-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 514.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 04-FEB-87 | 93/14 | BRAIN | 1.649 | 0.3208 % | 1.0000 | LOW |
| 04-FEB-87 | 93/14 | LIVER | 18.426 | 3.5848 % | 11.1740 | OK |
| 04-FEB-87 | 93/14 | KIDNEY | 3.116 | 0.6062 % | 1.8896 | OK |
| 04-FEB-87 | 93/14 | HEART | 1.417 | 0.2757 % | 0.8593 | LOW |
| 04-FEB-87 | 93/14 | SPLEEN | 0.855 | 0.1663 % | 0.5185 | LOW |
| 04-FEB-87 | 93/14 | ADRENAL | 0.078 | 0.0152 % | 0.0473 | OK |
| 04-FEB-87 | 93/14 | TESTES | 2.764 | 0.5377 % | 1.6762 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER NOT SPECIFIED(TRACE)
 -INFLAMMATION,CHRONIC,MULTIFOCAL
 SOLEUS NOT SPECIFIED(TRACE)
 -INFLAMMATION,CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005

PRINTED: 02-FEB-89
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STUDY START DATE: 04-NOV-86

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600554/PRETEST= Q86D0554 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 02-DEC-86 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 408.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 02-DEC-86 | 29/5 | BRAIN | 1.928 | 0.4725 % | 1.0000 | LOW |
| 02-DEC-86 | 29/5 | LIVER | 18.454 | 4.5230 % | 9.5716 | HIGH |
| 02-DEC-86 | 29/5 | KIDNEY | 2.813 | 0.6895 % | 1.4590 | OK |
| 02-DEC-86 | 29/5 | HEART | 0.522 | 0.1279 % | 0.2707 | LOW |
| 02-DEC-86 | 29/5 | SPLEEN | 0.692 | 0.1696 % | 0.3589 | LOW |
| 02-DEC-86 | 29/5 | ADRENAL | 0.057 | 0.0140 % | 0.0296 | OK |
| 02-DEC-86 | 29/5 | TESTES | 3.562 | 0.8730 % | 1.8475 | HIGH |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600593/PRETEST= Q8600593 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 02-DEC-86 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 430.00 (GMS)
 PRINTED: 02-FEB-89
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| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 02-DEC-86 | 29/5 | BRAIN | 1.628 | 0.3786 % | 1.0000 | LOW |
| 02-DEC-86 | 29/5 | LIVER | 15.342 | 3.5679 % | 9.4238 | OK |
| 02-DEC-86 | 29/5 | KIDNEY | 2.451 | 0.5700 % | 1.5055 | LOW |
| 02-DEC-86 | 29/5 | HEART | 1.369 | 0.3184 % | 0.8409 | OK |
| 02-DEC-86 | 29/5 | SPLEEN | 0.787 | 0.1830 % | 0.4834 | LOW |
| 02-DEC-86 | 29/5 | ADRENAL | 0.057 | 0.0133 % | 0.0350 | OK |
| 02-DEC-86 | 29/5 | TESTES | 2.948 | 0.6856 % | 1.8108 | LOW |

ORGAN NAME GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 ANIMAL NUMBER: 8600604/PRETEST= 08600604 SEX: MALE
 DATE OF DEATH: 02-DEC-86 STUDY DAY OF DEATH: 29
 STUDY START DATE: 04-NOV-86
 DOSE GROUP: 4
 SACRIFICE STATUS: INTERIM SACRIFICE 2
 STUDY WEEK OF DEATH: 5
 TERMINAL BODY WEIGHT: 425.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

PRINTED: 02-FEB-89
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| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 02-DEC-86 | 29/5 | BRAIN | 2.001 | 0.4708 % | 1.0000 | LOW |
| 02-DEC-86 | 29/5 | LIVER | 16.596 | 3.9049 % | 8.2939 | OK |
| 02-DEC-86 | 29/5 | KIDNEY | 3.399 | 0.7998 % | 1.6987 | OK |
| 02-DEC-86 | 29/5 | HEART | 1.285 | 0.3024 % | 0.6422 | OK |
| 02-DEC-86 | 29/5 | SPLEEN | 1.848 | 0.4348 % | 0.9235 | HIGH |
| 02-DEC-86 | 29/5 | ADRENAL | 0.068 | 0.0160 % | 0.0340 | OK |
| 02-DEC-86 | 29/5 | TESTES | 3.246 | 0.7638 % | 1.6222 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 ORGAN NAME KEYWORDS / PHRASES
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LUNGS
 INFLAMMATION, ACUTE, PERIVASCULAR NOT SPECIFIED (TRACE)
 DIAPHRAGM
 INFLAMMATION, ACUTE NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 PRINTED: 02-FEB-89
 PAGE: 103

ANIMAL NUMBER: 8600612/PRETEST= Q8600612 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 702.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 2.103 | 0.2996 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | LIVER | 21.381 | 3.0457 % | 10.1669 | OK |
| 03-FEB-87 | 92/14 | KIDNEY | 3.753 | 0.5346 % | 1.7846 | LOW |
| 03-FEB-87 | 92/14 | HEART | 1.945 | 0.2771 % | 0.9249 | LOW |
| 03-FEB-87 | 92/14 | SPLEEN | 0.955 | 0.1360 % | 0.4541 | LOW |
| 03-FEB-87 | 92/14 | ADRENAL | 0.046 | 0.0066 % | 0.0219 | LOW |
| 03-FEB-87 | 92/14 | TESTES | 3.926 | 0.5593 % | 1.8669 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SOLEUS NOT SPECIFIED (TRACE)
 -INFLAMMATION, SUBACUTE

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 ANIMAL NUMBER: 8600626/PRETEST= Q8600626 SEX: MALE
 DOSE GROUP: 4
 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92
 STUDY WEEK OF DEATH: 14
 TERMINAL BODY WEIGHT: 561.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
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| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 1.986 | 0.3540 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | LIVER | 23.144 | 4.1255 % | 11.6536 | HIGH |
| 03-FEB-87 | 92/14 | KIDNEY | 3.581 | 0.6383 % | 1.8031 | OK |
| 03-FEB-87 | 92/14 | HEART | 1.487 | 0.2651 % | 0.7487 | LOW |
| 03-FEB-87 | 92/14 | SPLEEN | 0.821 | 0.1463 % | 0.4134 | LOW |
| 03-FEB-87 | 92/14 | ADRENAL | 0.049 | 0.0087 % | 0.0247 | OK |
| 03-FEB-87 | 92/14 | TESTES | 3.348 | 0.5968 % | 1.6858 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED (TRACE)
 -NEPHROPATHY

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 ANIMAL NUMBER: 86D00636/PRETEST= 086D00636 SEX: MALE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92
 STUDY START DATE: 04-NOV-86
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
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 DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 499.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 1.897 | 0.3802 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | LIVER | 15.463 | 3.0988 % | 8.1513 | OK |
| 03-FEB-87 | 92/14 | KIDNEY | 2.941 | 0.5894 % | 1.5503 | LOW |
| 03-FEB-87 | 92/14 | HEART | 1.451 | 0.2908 % | 0.7649 | LOW |
| 03-FEB-87 | 92/14 | SPLEEN | 0.653 | 0.1309 % | 0.3442 | LOW |
| 03-FEB-87 | 92/14 | ADRENAL | 0.049 | 0.0098 % | 0.0258 | OK |
| 03-FEB-87 | 92/14 | TESTES | 2.672 | 0.5355 % | 1.4085 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

DIAPHRAGM NOT SPECIFIED(TRACE)
 -INFLAMMATION, SUBACUTE

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600639/PRETEST= 08600639 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 552.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 3.748 | 0.6790 % | 1.0000 | OK |
| 03-FEB-87 | 92/14 | LIVER | 18.762 | 3.3989 % | 5.0059 | OK |
| 03-FEB-87 | 92/14 | KIDNEY | 3.805 | 0.6893 % | 1.0152 | OK |
| 03-FEB-87 | 92/14 | HEART | 1.597 | 0.2893 % | 0.4261 | LOW |
| 03-FEB-87 | 92/14 | SPLEEN | 0.608 | 0.1101 % | 0.1622 | LOW |
| 03-FEB-87 | 92/14 | ADRENAL | 0.052 | 0.0094 % | 0.0139 | OK |
| 03-FEB-87 | 92/14 | TESTES | 3.374 | 0.6112 % | 0.9002 | LOW |

<< ORGAN WEIGHTS >>
 << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 KIDNEY NOT SPECIFIED (TRACE)
 -NEPHROPATHY

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 PRINTED: 02-FEB-89
 PAGE: 107
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600644/PRETEST= 08600644 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 385.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-DEC-86 | 30/5 | BRAIN | 2.001 | 0.5197 % | 1.0000 | OK |
| 03-DEC-86 | 30/5 | LIVER | 17.788 | 4.6203 % | 8.8896 | HIGH |
| 03-DEC-86 | 30/5 | KIDNEY | 2.908 | 0.7553 % | 1.4533 | OK |
| 03-DEC-86 | 30/5 | HEART | 1.292 | 0.3356 % | 0.6457 | OK |
| 03-DEC-86 | 30/5 | SPLEEN | 0.826 | 0.2145 % | 0.4128 | OK |
| 03-DEC-86 | 30/5 | ADRENAL | 0.047 | 0.0122 % | 0.0235 | OK |
| 03-DEC-86 | 30/5 | TESTES | 3.007 | 0.7810 % | 1.5027 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86

ANIMAL NUMBER: 8600645/PRETEST= Q86D0645 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 404.00 (GMS)

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
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| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-DEC-86 | 30/5 | | 1.866 | 0.4619 % | 1.0000 | LOW |
| 03-DEC-86 | 30/5 | | 15.781 | 3.9062 % | 8.4571 | OK |
| 03-DEC-86 | 30/5 | | 2.642 | 0.6540 % | 1.4159 | OK |
| 03-DEC-86 | 30/5 | | 1.136 | 0.2812 % | 0.6088 | LOW |
| 03-DEC-86 | 30/5 | | 0.639 | 0.1582 % | 0.3424 | LOW |
| 03-DEC-86 | 30/5 | | 0.055 | 0.0136 % | 0.0295 | OK |
| 03-DEC-86 | 30/5 | | 3.394 | 0.8401 % | 1.8189 | HIGH |

ORGAN NAME ORGAN SEVERITY OBSERVATIONS >>
 KEYWORDS / PHRASES GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 PRINTED: 02-FEB-89
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 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600646/PRETEST= 08600646 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 572.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 1.936 | 0.3385 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 20.675 | 3.6145 % | 10.6792 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 3.334 | 0.5829 % | 1.7221 | LOW |
| 05-FEB-87 | 94/14 | HEART | 1.597 | 0.2792 % | 0.8249 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 0.955 | 0.1670 % | 0.4933 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.085 | 0.0149 % | 0.0439 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.152 | 0.5510 % | 1.6281 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 ANIMAL NUMBER: 8600655/PRETEST# Q8600655 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 499.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | | 2.012 | 0.4032 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | | 17.494 | 3.5058 % | 8.6948 | OK |
| 05-FEB-87 | 94/14 | | 3.089 | 0.6190 % | 1.5353 | OK |
| 05-FEB-87 | 94/14 | | 1.457 | 0.2920 % | 0.7242 | LOW |
| 05-FEB-87 | 94/14 | | 0.671 | 0.1345 % | 0.3335 | LOW |
| 05-FEB-87 | 94/14 | | 0.039 | 0.0078 % | 0.0194 | LOW |
| 05-FEB-87 | 94/14 | | 3.102 | 0.6216 % | 1.5417 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86

ANIMAL NUMBER: 8600675/PRETEST= 08600675 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 498.00 (GMS)

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 2.112 | 0.4241 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 17.446 | 3.5032 % | 8.2604 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 2.596 | 0.5213 % | 1.2292 | LOW |
| 05-FEB-87 | 94/14 | HEART | 1.452 | 0.2916 % | 0.6875 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 0.591 | 0.1187 % | 0.2798 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.037 | 0.0074 % | 0.0175 | LOW |
| 05-FEB-87 | 94/14 | TESTES | 3.754 | 0.7538 % | 1.7775 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 INDIVIDUAL ANIMAL DATA REPORT
 PRINTED: 02-FEB-89
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ANIMAL NUMBER: 8600676/PRETEST= Q8600676 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 576.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 1.976 | 0.3431 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 19.641 | 3.4099 % | 9.9398 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 3.235 | 0.5616 % | 1.6371 | LOW |
| 05-FEB-87 | 94/14 | HEART | 1.504 | 0.2611 % | 0.7611 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 0.830 | 0.1441 % | 0.4200 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.047 | 0.0082 % | 0.0238 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.269 | 0.5675 % | 1.6544 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 ORGAN NAME KEYWORDS / PHRASES
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
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ANIMAL NUMBER: 8600703/PRETEST= Q8600703 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 541.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|--------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 2.104 | 0.3889 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 20.877 | 3.8590 % | 9.9225 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 3.068 | 0.5671 % | 1.4582 | LOW |
| 05-FEB-87 | 94/14 | HEART | 1.506 | 0.2784 % | 0.7158 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 0.882 | 0.1630 % | 0.4192 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.043 | 0.0079 % | 0.0204 | LOW |
| 05-FEB-87 | 94/14 | TESTES | 3.464 | 0.6403 % | 1.6464 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600718/PRETEST= Q8600718 SEX: MALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 520.00 (GMS)

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| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | | BRAIN | 1.849 | 0.3556 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | | LIVER | 16.595 | 3.1913 % | 8.9751 | OK |
| 05-FEB-87 | 94/14 | | KIDNEY | 2.932 | 0.5638 % | 1.5857 | LOW |
| 05-FEB-87 | 94/14 | | HEART | 1.431 | 0.2752 % | 0.7739 | LOW |
| 05-FEB-87 | 94/14 | | SPLEEN | 0.673 | 0.1294 % | 0.3640 | LOW |
| 05-FEB-87 | 94/14 | | ADRENAL | 0.041 | 0.0079 % | 0.0222 | LOW |
| 05-FEB-87 | 94/14 | | TESTES | 3.718 | 0.7150 % | 2.0108 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SOLEUS
 -INFLAMMATION, CHRONIC NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 ANIMAL NUMBER: 8600509/PRETEST= 08600509 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 341.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-DEC-86 | 30/5 | | 1.932 | 0.5666 % | 1.0000 | OK |
| 03-DEC-86 | 30/5 | | 13.415 | 3.9340 % | 6.9436 | OK |
| 03-DEC-86 | 30/5 | | 2.191 | 0.6425 % | 1.1341 | OK |
| 03-DEC-86 | 30/5 | | 1.035 | 0.3035 % | 0.5357 | OK |
| 03-DEC-86 | 30/5 | | 0.660 | 0.1935 % | 0.3416 | LOW |
| 03-DEC-86 | 30/5 | | 0.034 | 0.0100 % | 0.0176 | OK |
| 03-DEC-86 | 30/5 | | 2.586 | 0.7584 % | 1.3385 | LOW |

ORGAN NAME GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, FATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

ANIMAL NUMBER: 8600533/PRETEST= 08600533 SEX: MALE
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30

STUDY START DATE: 04-NOV-86
 DOSE GROUP: 5
 STUDY WEEK OF DEATH: 5

SACRIFICE STATUS: INTERIM SACRIFICE 2
 TERMINAL BODY WEIGHT: 346.00 (GMS)

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STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

<< ORGAN WEIGHTS >>

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-DEC-86 | 30/5 | BRAIN | 1.840 | 0.5318 % | 1.0000 | OK |
| 03-DEC-86 | 30/5 | LIVER | 13.616 | 3.9353 % | 7.4000 | OK |
| 03-DEC-86 | 30/5 | KIDNEY | 2.477 | 0.7159 % | 1.3462 | OK |
| 03-DEC-86 | 30/5 | HEART | 1.181 | 0.3413 % | 0.5418 | OK |
| 03-DEC-86 | 30/5 | SPLEEN | 0.679 | 0.1962 % | 0.3690 | LOW |
| 03-DEC-86 | 30/5 | ADRENAL | 0.060 | 0.0173 % | 0.0326 | OK |
| 03-DEC-86 | 30/5 | TESTES | 2.548 | 0.7364 % | 1.3848 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
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 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 6600550/PRETEST= 086D0550 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 485.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 1.914 | 0.3946 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | LIVER | 17.970 | 3.7052 % | 9.3887 | OK |
| 03-FEB-87 | 92/14 | KIDNEY | 3.168 | 0.6532 % | 1.6552 | OK |
| 03-FEB-87 | 92/14 | HEART | 1.496 | 0.3085 % | 0.7816 | OK |
| 03-FEB-87 | 92/14 | SPLEEN | 0.750 | 0.1546 % | 0.3918 | LOW |
| 03-FEB-87 | 92/14 | ADRENAL | 0.097 | 0.0200 % | 0.0507 | HIGH |
| 03-FEB-87 | 92/14 | TESTES | 3.111 | 0.6414 % | 1.6254 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 ANIMAL NUMBER: 8600570/PRETEST= Q8600570 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 621.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 2.089 | 0.3364 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | LIVER | 18.126 | 2.9188 % | 8.6769 | LOW |
| 03-FEB-87 | 92/14 | KIDNEY | 3.354 | 0.5401 % | 1.6056 | LOW |
| 03-FEB-87 | 92/14 | HEART | 1.544 | 0.2486 % | 0.7391 | LOW |
| 03-FEB-87 | 92/14 | SPLEEN | 0.896 | 0.1443 % | 0.4289 | LOW |
| 03-FEB-87 | 92/14 | ADRENAL | 0.068 | 0.0110 % | 0.0326 | OK |
| 03-FEB-87 | 92/14 | TESTES | 3.154 | 0.5079 % | 1.5098 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 ANIMAL NUMBER: 86D0617/PRETEST= Q86D0617 SEX: MALE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 DOSE GROUP: 5
 STUDY WEEK OF DEATH: 14
 SACRIFICE STATUS: FINAL SACRIFICE
 TERMINAL BODY WEIGHT: 543.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

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| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 1.925 | 0.3545 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | LIVER | 17.641 | 3.2488 % | 9.1642 | OK |
| 03-FEB-87 | 92/14 | KIDNEY | 3.436 | 0.6328 % | 1.7849 | OK |
| 03-FEB-87 | 92/14 | HEART | 1.517 | 0.2794 % | 0.7881 | LOW |
| 03-FEB-87 | 92/14 | SPLEEN | 0.656 | 0.1208 % | 0.3408 | LOW |
| 03-FEB-87 | 92/14 | ADRENAL | 0.020 | 0.0037 % | 0.0104 | LOW |
| 03-FEB-87 | 92/14 | TESTES | 3.490 | 0.6427 % | 1.8130 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED(TRACE)
 -NEPHROPATHY

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 ANIMAL NUMBER: 8600621/PRETEST= 086D0621 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 354.00 (GMS)
 STUDY NUMBER: 86005
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
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| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-DEC-86 | 30/5 | | 1.917 | 0.5415 % | 1.0000 | OK |
| 03-DEC-86 | 30/5 | | 16.371 | 4.6246 % | 8.5399 | HIGH |
| 03-DEC-86 | 30/5 | | 2.688 | 0.7593 % | 1.4022 | OK |
| 03-DEC-86 | 30/5 | | 1.168 | 0.3299 % | 0.6093 | OK |
| 03-DEC-86 | 30/5 | | 0.615 | 0.1737 % | 0.3208 | LOW |
| 03-DEC-86 | 30/5 | | 0.059 | 0.0167 % | 0.0308 | OK |
| 03-DEC-86 | 30/5 | | 2.596 | 0.7333 % | 1.3542 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005

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STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600632/PRETEST= Q8600632 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 473.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 2.048 | 0.4330 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | LIVER | 12.564 | 2.6562 % | 6.1348 | LOW |
| 03-FEB-87 | 92/14 | KIDNEY | 2.518 | 0.5323 % | 1.2295 | LOW |
| 03-FEB-87 | 92/14 | HEART | 1.252 | 0.2647 % | 0.6113 | LOW |
| 03-FEB-87 | 92/14 | SPLEEN | 0.538 | 0.1137 % | 0.2627 | LOW |
| 03-FEB-87 | 92/14 | ADRENAL | 0.017 | 0.0036 % | 0.0083 | LOW |
| 03-FEB-87 | 92/14 | TESTES | 2.866 | 0.6059 % | 1.3994 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED(TRACE)
 - NEPHROPATHY

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 ANIMAL NUMBER: 8600641/PRETEST= QB600641 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 601.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 2.099 | 0.3493 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 19.159 | 3.1879 % | 9.1277 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 3.578 | 0.5953 % | 1.7046 | LOW |
| 05-FEB-87 | 94/14 | HEART | 1.614 | 0.2686 % | 0.7689 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 0.769 | 0.1280 % | 0.3664 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.042 | 0.0070 % | 0.0200 | LOW |
| 05-FEB-87 | 94/14 | TESTES | 3.326 | 0.5534 % | 1.5846 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 86D0648/PRETEST= 086D0648 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 399.00 (GMS)

PRINTED: 02-FEB-89
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| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-DEC-86 | 30/5 | BRAIN | 1.999 | 0.5010 % | 1.0000 | OK |
| 03-DEC-86 | 30/5 | LIVER | 16.785 | 4.2068 % | 8.3967 | HIGH |
| 03-DEC-86 | 30/5 | KIDNEY | 2.860 | 0.7168 % | 1.4307 | OK |
| 03-DEC-86 | 30/5 | HEART | 1.637 | 0.4103 % | 0.8189 | OK |
| 03-DEC-86 | 30/5 | SPLEEN | 0.735 | 0.1842 % | 0.3677 | LOW |
| 03-DEC-86 | 30/5 | ADRENAL | 0.069 | 0.0173 % | 0.0345 | OK |
| 03-DEC-86 | 30/5 | TESTES | 2.729 | 0.6840 % | 1.3652 | LOW |

<< ORGAN WEIGHTS >>

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

DIAPHRAGM NOT SPECIFIED (TRACE)
 -INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600684/PRETEST= Q8600684 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 497.00 (GMS)
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| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | 1.988 | 15.897 | 0.4000 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | 2.932 | 15.897 | 3.1986 % | 7.9965 | OK |
| 05-FEB-87 | 94/14 | 1.314 | 2.932 | 0.5899 % | 1.4748 | LOW |
| 05-FEB-87 | 94/14 | 0.727 | 1.314 | 0.2644 % | 0.6610 | LOW |
| 05-FEB-87 | 94/14 | 0.039 | 0.727 | 0.1463 % | 0.3657 | LOW |
| 05-FEB-87 | 94/14 | 2.843 | 0.039 | 0.0078 % | 0.0196 | LOW |
| 05-FEB-87 | 94/14 | | 2.843 | 0.5720 % | 1.4301 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SOLEUS NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 125

ANIMAL NUMBER: 8600686/PRETEST= Q86D0686 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 495.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 1.860 | 0.3758 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 16.897 | 3.4135 % | 9.0844 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 2.980 | 0.6020 % | 1.6022 | OK |
| 05-FEB-87 | 94/14 | HEART | 1.424 | 0.2877 % | 0.7656 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 0.702 | 0.1418 % | 0.3774 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.065 | 0.0131 % | 0.0349 | OK |
| 05-FEB-87 | 94/14 | TESTES | 2.743 | 0.5541 % | 1.4747 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 ENLARGED MODERATE THE LEFT SUBMANDIBULAR LN IS ABOUT THREE TIMES NORMAL SIZE.
 MULTIPLE PETECHIAE ARE ALSO PRESENT IN THIS ORGAN.

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SOLEUS NOT SPECIFIED (TRACE)
 -INFLAMMATION, CHRONIC
 SUBMANDIBULAR LN MISCELLANEOUS TISSUE
 -M- LYMPHOMA / LYMPHOSARCOMA (PRESENT)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600689/PRETEST= 08600689 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 590.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | | 1.945 | 0.3297 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | | 22.286 | 3.7773 % | 11.4581 | OK |
| 05-FEB-87 | 94/14 | | 3.791 | 0.6425 % | 1.9491 | OK |
| 05-FEB-87 | 94/14 | | 1.509 | 0.2528 % | 0.7758 | LOW |
| 05-FEB-87 | 94/14 | | 0.964 | 0.1634 % | 0.4956 | LOW |
| 05-FEB-87 | 94/14 | | 0.047 | 0.0080 % | 0.0242 | LOW |
| 05-FEB-87 | 94/14 | | 3.347 | 0.5673 % | 1.7208 | LOW |

ORGAN NAME
 BRAIN
 LIVER
 KIDNEY
 HEART
 SPLEEN
 ADRENAL
 TESTES

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS
 << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 127

ANIMAL NUMBER: 8600690/PRETEST= Q8600690 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 550.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | << ORGANS >> | | | | | |
| 05-FEB-87 | 94/14 | BRAIN | | 1.759 | 0.3198 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | | 18.122 | 3.2949 % | 10.3024 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | | 3.041 | 0.5529 % | 1.7288 | LOW |
| 05-FEB-87 | 94/14 | HEART | | 1.273 | 0.2315 % | 0.7237 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | | 0.663 | 0.1205 % | 0.3769 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | | 0.039 | 0.0071 % | 0.0222 | LOW |
| 05-FEB-87 | 94/14 | TESTES | | 2.818 | 0.5124 % | 1.6020 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86

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 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600699/PRETEST= 086D0699 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 568.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | | 2.189 | 0.3854 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | | 17.335 | 3.0519 % | 7.9191 | OK |
| 05-FEB-87 | 94/14 | | 3.496 | 0.6155 % | 1.5971 | OK |
| 05-FEB-87 | 94/14 | | 1.356 | 0.2387 % | 0.6195 | LOW |
| 05-FEB-87 | 94/14 | | 0.862 | 0.1518 % | 0.3938 | LOW |
| 05-FEB-87 | 94/14 | | 0.051 | 0.0090 % | 0.0233 | OK |
| 05-FEB-87 | 94/14 | | 3.132 | 0.5514 % | 1.4308 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED(MILD)
 -DILATION, PELVIS

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, 2ATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86

ANIMAL NUMBER: 8600726/PRETEST= 08600726 SEX: MALE DOSE GROUP: 5 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 424.00 (GMS)

PRINTED: 02-FEB-89
 PAGE: 129
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-DEC-86 | 30/5 | BRAIN | 2.005 | 0.4729 % | 1.0000 | LOW |
| 03-DEC-86 | 30/5 | LIVER | 18.666 | 4.4024 % | 9.3097 | HIGH |
| 03-DEC-86 | 30/5 | KIDNEY | 3.069 | 0.7238 % | 1.5307 | OK |
| 03-DEC-86 | 30/5 | HEART | 1.329 | 0.3134 % | 0.6628 | OK |
| 03-DEC-86 | 30/5 | SPLEEN | 0.788 | 0.1858 % | 0.3930 | LOW |
| 03-DEC-86 | 30/5 | ADRENAL | 0.051 | 0.0120 % | 0.0254 | OK |
| 03-DEC-86 | 30/5 | TESTES | 2.827 | 0.6667 % | 1.4100 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS

ORGAN NAME
 WHOLE BODY
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SOLEUS
 -DEGENERATION, FOCAL
 NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 ANIMAL NUMBER: 8600523/PRETEST= 08600523 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 326.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN | WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------|--------------|---------------------------|-----------------------------|--------------|
| 03-DEC-86 | 30/5 | BRAIN | 1.929 | 0.5917 % | 1.0000 | OK |
| 03-DEC-86 | 30/5 | LIVER | 12.643 | 3.8782 % | 6.5542 | OK |
| 03-DEC-86 | 30/5 | KIDNEY | 2.344 | 0.7190 % | 1.2151 | OK |
| 03-DEC-86 | 30/5 | HEART | 1.000 | 0.3067 % | 0.5184 | OK |
| 03-DEC-86 | 30/5 | SPLEEN | 0.611 | 0.1874 % | 0.3167 | LOW |
| 03-DEC-86 | 30/5 | ADRENAL | 0.036 | 0.0110 % | 0.0187 | OK |
| 03-DEC-86 | 30/5 | TESTES | 2.853 | 0.8752 % | 1.4790 | HIGH |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

DIAPHRAGM NOT SPECIFIED(TRACE)
 -INFLAMMATION,CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY NUMBER: 86005
 STUDY DATE: 04-NOV-86
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600552/PRETEST= Q8600552 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 329.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-DEC-86 | 30/5 | BRAIN | 1.781 | 0.5413 % | 1.0000 | OK |
| 03-DEC-86 | 30/5 | LIVER | 13.387 | 4.0690 % | 7.5166 | HIGH |
| 03-DEC-86 | 30/5 | KIDNEY | 2.458 | 0.7471 % | 1.3801 | OK |
| 03-DEC-86 | 30/5 | HEART | 1.177 | 0.3578 % | 0.6609 | OK |
| 03-DEC-86 | 30/5 | SPLEEN | 0.600 | 0.1824 % | 0.3369 | LOW |
| 03-DEC-86 | 30/5 | ADRENAL | 0.041 | 0.0125 % | 0.0230 | OK |
| 03-DEC-86 | 30/5 | TESTES | 2.706 | 0.8225 % | 1.5194 | HIGH |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

ACCESSORY SEX OR ATROPHY, PROSTATE NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 ANIMAL NUMBER: 86D0563/PRETEST-2 Q86D0563 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 571.00 (GMS)
 STUDY START DATE: 04-NOV-86 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
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| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 1.950 | 0.3415 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | LIVER | 20.432 | 3.5783 % | 10.4779 | OK |
| 03-FEB-87 | 92/14 | KIDNEY | 3.665 | 0.6419 % | 1.8795 | OK |
| 03-FEB-87 | 92/14 | HEART | 1.606 | 0.2813 % | 0.8236 | LOW |
| 03-FEB-87 | 92/14 | SPLEEN | 0.793 | 0.1389 % | 0.4067 | LOW |
| 03-FEB-87 | 92/14 | ADRENAL | 0.079 | 0.0138 % | 0.0405 | OK |
| 03-FEB-87 | 92/14 | TESTES | 2.907 | 0.5091 % | 1.4908 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

PAROTID GLAND
 -INFLAMMATION, CHRONIC NOT SPECIFIED (TRACE)
 KIDNEY
 -INFLAMMATION, CHRONIC NOT SPECIFIED (MILD)
 PANCREAS
 -INFLAMMATION, CHRONIC NOT SPECIFIED (MILD)
 -ACINAR (EXOCRINE) ATROPHY NOT SPECIFIED (MILD)
 BONE, STERNUM TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600565/PRESTEST= Q8600565 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 508.00 (GMS)
 PRINTED: 02-FEB-89
 PAGE: 133

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 1.902 | 0.3744 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | LIVER | 14.910 | 2.9350 % | 7.8391 | LOW |
| 03-FEB-87 | 92/14 | KIDNEY | 3.188 | 0.6276 % | 1.6761 | OK |
| 03-FEB-87 | 92/14 | HEART | 1.470 | 0.2894 % | 0.7729 | LOW |
| 03-FEB-87 | 92/14 | SPLEEN | 0.646 | 0.1272 % | 0.3396 | LOW |
| 03-FEB-87 | 92/14 | ADRENAL | 0.068 | 0.0134 % | 0.0358 | OK |
| 03-FEB-87 | 92/14 | TESTES | 2.845 | 0.5600 % | 1.4958 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

ALL REQUIRED TISSUES NORMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
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ANIMAL NUMBER: 8600568/PRETEST= Q86D0568 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 601.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | | BRAIN | 2.024 | 0.3368 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | | LIVER | 19.644 | 3.2686 % | 9.7055 | OK |
| 03-FEB-87 | 92/14 | | KIDNEY | 3.163 | 0.5263 % | 1.5627 | LOW |
| 03-FEB-87 | 92/14 | | HEART | 1.500 | 0.2496 % | 0.7411 | LOW |
| 03-FEB-87 | 92/14 | | SPLEEN | 0.812 | 0.1351 % | 0.4012 | LOW |
| 03-FEB-87 | 92/14 | | ADRENAL | 0.077 | 0.0128 % | 0.0380 | OK |
| 03-FEB-87 | 92/14 | | TESTES | 3.284 | 0.5464 % | 1.6225 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

- EXORBITAL LACRIM NOT SPECIFIED(TRACE)
- INFLAMMATION, CHRONIC
- HEART NOT SPECIFIED(TRACE)
- INFLAMMATION, CHRONIC
- THYMUS NOT SPECIFIED(TRACE)
- HEMORRHAGE, MULTIFOCAL
- ACCESSORY SEX OR NOT SPECIFIED(MILD)
- INFLAMMATION, CHRONIC, PROSTATE
- INFLAMMATION, CHRONIC, PREPUTIAL GLAND
- PANCREAS

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 ANIMAL NUMBER: 8600568/PRETEST= 08600568 SEX: MALE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92
 TISSUE / HISTOPATHOLOGIC FINDINGS
 << M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86

DOSE GROUP: 6
 STUDY WEEK OF DEATH: 14
 SACRIFICE STATUS: FINAL SACRIFICE
 TERMINAL BODY WEIGHT: 601.00 (GMS)

PRINTED: 02-FEB-89
 PAGE: 135
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

PANCREAS NOT SPECIFIED(MILD)
 -ACTINAR (EXOCRINE) ATROPHY
 PITUITARY GLAND TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 PRINTED: 02-FEB-89
 PAGE: 136

STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600587/PRETEST= Q8600587 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 359.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-DEC-86 | 30/5 | BRAIN | 1.821 | 0.5072 % | 1.0000 | OK |
| 03-DEC-86 | 30/5 | LIVER | 13.497 | 3.7596 % | 7.4119 | OK |
| 03-DEC-86 | 30/5 | KIDNEY | 2.724 | 0.7588 % | 1.4959 | OK |
| 03-DEC-86 | 30/5 | HEART | 1.329 | 0.3702 % | 0.7298 | OK |
| 03-DEC-86 | 30/5 | SPLEEN | 0.639 | 0.1780 % | 0.3509 | LOW |
| 03-DEC-86 | 30/5 | ADRENAL | 0.050 | 0.0139 % | 0.0275 | OK |
| 03-DEC-86 | 30/5 | TESTES | 2.815 | 0.7841 % | 1.5459 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

EXORBITAL LACRIM TISSUE IS MISSING
 HEART NOT SPECIFIED(TRACE)
 -INFLAMMATION,CHRONIC
 LUNGS NOT SPECIFIED(TRACE)
 -INFLAMMATION,CHRONIC, FOCAL
 MAMMARY GLAND TISSUE IS MISSING
 SUBMANDIBULAR LN MISCEL: ANEOUS TISSUE
 -HYPERPLASIA,LYMPHOID NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 PRINTED: 02-FEB-89
 PAGE: 137

INDIVIDUAL ANIMAL DATA REPORT
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 8600607/PRETEST= 08600607 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 601.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-FEB-87 | 92/14 | BRAIN | 1.905 | 0.3170 % | 1.0000 | LOW |
| 03-FEB-87 | 92/14 | LIVER | 19.746 | 3.2855 % | 10.3654 | OK |
| 03-FEB-87 | 92/14 | KIDNEY | 3.424 | 0.5697 % | 1.7974 | LOW |
| 03-FEB-87 | 92/14 | HEART | 1.574 | 0.2619 % | 0.8262 | LOW |
| 03-FEB-87 | 92/14 | SPLEEN | 0.678 | 0.1128 % | 0.3559 | LOW |
| 03-FEB-87 | 92/14 | ADRENAL | 0.099 | 0.0165 % | 0.0520 | OK |
| 03-FEB-87 | 92/14 | TESTES | 3.300 | 0.5491 % | 1.7323 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

THYROID GLANDS TISSUE IS MISSING
 PARATHYROID TISSUE IS MISSING
 LUNGS NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC, FOCAL
 THYMUS NOT SPECIFIED(MILD)
 -HEMORRHAGE, MULTIFOCAL
 ACCESSORY SEX OR NOT SPECIFIED(MILD)
 -INFLAMMATION, CHRONIC, PROSTATE

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

 ANIMAL NUMBER: 8600607/PRETEST= 08600607 SEX: MALE
 DATE OF DEATH: 03-FEB-87 STUDY DAY OF DEATH: 92

 << M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>
 TISSUE / HISTOPATHOLOGIC FINDINGS

 MAMMARY GLAND TISSUE IS MISSING

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86

 DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 601.00 (GMS)

 SUB-CHRONIC/90 DAY FEEDING

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Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY NUMBER: 86005
 INDIVIDUAL ANIMAL DATA REPORT
 PRINTED: 02-FEB-89
 PAGE: 139

ANIMAL NUMBER: 8600630/PRETEST= Q8600630 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 558.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 2.015 | 0.3611 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 18.451 | 3.3066 % | 9.1568 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 3.025 | 0.5421 % | 1.5012 | LOW |
| 05-FEB-87 | 94/14 | HEART | 1.557 | 0.2790 % | 0.7727 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 1.012 | 0.1814 % | 0.5022 | OK |
| 05-FEB-87 | 94/14 | ADRENAL | 0.053 | 0.0095 % | 0.0263 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.128 | 0.5606 % | 1.5524 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS

ORGAN NAME KEYWORDS / PHRASES
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

EXORBITAL LACRIM -INFLAMMATION, CHRONIC NOT SPECIFIED (TRACE)

MAMMARY GLAND TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 140

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 ANIMAL NUMBER: 86D0631/PRETEST= Q86D0631 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 367.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 03-DEC-86 | 30/5 | BRAIN | 1.873 | 0.5104 % | 1.0000 | OK |
| 03-DEC-86 | 30/5 | LIVER | 15.804 | 4.3063 % | 8.4378 | HIGH |
| 03-DEC-86 | 30/5 | KIDNEY | 2.454 | 0.6687 % | 1.3102 | OK |
| 03-DEC-86 | 30/5 | HEART | 1.047 | 0.2853 % | 0.5590 | LOW |
| 03-DEC-86 | 30/5 | SPLEEN | 0.508 | 0.1384 % | 0.2712 | LOW |
| 03-DEC-86 | 30/5 | ADRENAL | 0.043 | 0.0117 % | 0.0230 | OK |
| 03-DEC-86 | 30/5 | TESTES | 3.140 | 0.8556 % | 1.6765 | HIGH |

<< ORGAN WEIGHTS >>
 << GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME: SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY: NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS: DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 ALL REQUIRED TISSUES NORMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 ANIMAL NUMBER: 860052/PRETEST= 08600652 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 478.00 (GMS)
 PRINTED: 02-FEB-89
 PAGE: 141

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 2.124 | 0.4444 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 17.396 | 3.6393 % | 3.1902 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 2.825 | 0.5910 % | 1.3300 | LOW |
| 05-FEB-87 | 94/14 | HEART | 1.452 | 0.3038 % | 0.6836 | OK |
| 05-FEB-87 | 94/14 | SPLEEN | 0.715 | 0.1496 % | 0.3366 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.049 | 0.0103 % | 0.0231 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.394 | 0.7100 % | 1.5979 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

ACCESSORY SEX OR NOT SPECIFIED(MILD)
 -INFLAMMATION, CHRONIC, PROSTATE
 PANCREAS NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC
 TONGUE TISSUE IS MISSING
 EYES & OPTIC N. OPTIC NERVE ONLY IS MISSING ON 19A AND B.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 ANIMAL NUMBER: 86D0659/PRETEST= Q86D0659 SEX: MALE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94
 STUDY START DATE: 04-NOV-86 DOSE GROUP: 6
 STUDY WEEK OF DEATH: 14
 SACRIFICE STATUS: FINAL SACRIFICE
 TERMINAL BODY WEIGHT: 478.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

PRINTED: 02-FEB-89
 PAGE: 142

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 1.917 | 0.4010 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 14.438 | 3.0205 % | 7.5316 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 2.660 | 0.5565 % | 1.3876 | LOW |
| 05-FEB-87 | 94/14 | HEART | 1.216 | 0.2544 % | 0.6343 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 0.790 | 0.1653 % | 0.4121 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.040 | 0.0084 % | 0.0209 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.166 | 0.6623 % | 1.6515 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

EXORBITAL LACRIM NOT SPECIFIED(TRACE)
 -INFLAMMATION,CHRONIC
 MESENTERIC LYM N TISSUE IS MISSING
 RECTUM TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005

PRINTED: 02-FEB-89

PAGE: 143

STUDY START DATE: 04-NOV-86

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 8600674/PRETEST= Q8600674 SEX: MALE
 DOSE GROUP: 6 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 03-DEC-86 STUDY DAY OF DEATH: 30
 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 359.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------|---------------------------|-----------------------------|--------------|
| 03-DEC-86 | 30/5 | BRAIN | 1.934 | 0.5387 % | 1.0000 | OK |
| 03-DEC-86 | 30/5 | LIVER | 14.818 | 4.1276 % | 7.6618 | HIGH |
| 03-DEC-86 | 30/5 | KIDNEY | 2.574 | 0.7170 % | 1.3309 | OK |
| 03-DEC-86 | 30/5 | HEART | 1.184 | 0.3298 % | 0.6122 | OK |
| 03-DEC-86 | 30/5 | SPLEEN | 0.602 | 0.1677 % | 0.3113 | LOW |
| 03-DEC-86 | 30/5 | ADRENAL | 0.051 | 0.0142 % | 0.0264 | OK |
| 03-DEC-86 | 30/5 | TESTES | 2.467 | 0.6872 % | 1.2756 | LOW |

ORGAN NAME GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

ACCESSORY SEX OR NOT SPECIFIED(MILD)
 -INFLAMMATION,CHRONIC,PROSTATE

EAR TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 144

ANIMAL NUMBER: 8600679/PRETEST= 086D0679 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 578.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 2.123 | 0.3673 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 17.804 | 3.0803 % | 8.3862 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 3.833 | 0.6631 % | 1.8055 | OK |
| 05-FEB-87 | 94/14 | HEART | 1.638 | 0.2834 % | 0.7715 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 0.683 | 0.1182 % | 0.3217 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.060 | 0.0104 % | 0.0283 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.333 | 0.5766 % | 1.5699 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

THYROID GLANDS NOT SPECIFIED(TRACE)
 -CYST
 EXORBITAL LACRIM
 -INFLAMMATION, CHRONIC NOT SPECIFIED(TRACE)
 -ATROPHY NOT SPECIFIED(TRACE)
 HEART
 -INFLAMMATION, CHRONIC NOT SPECIFIED(MILD)
 THYMUS
 -HEMORRHAGE, MULTIFOCAL NOT SPECIFIED(TRACE)
 ACCESSORY SEX OR

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
DIV OF RES SUPP, PATH SERV GP
SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
STUDY NUMBER: 86005
STUDY START DATE: 04-NOV-86

PRINTED: 02-FEB-89
PAGE: 145
STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

ANIMAL NUMBER: 86D0679/PRETEST= 086D0679 SEX: MALE
DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94

DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 578.00 (GMS)

<< M I C R O S C O P I C T I S S U E
TISSUE / HISTOPATHOLOGIC FINDINGS

O B S E R V A T I O N S >>
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

ACCESSORY SEX OR NOT SPECIFIED(TRACE)
-INFLAMMATION,CHRONIC,PROSTATE

SKIN TISSUE IS MISSING

EYES & OPTIC N. OPTIC NERVE ONLY IS MISSING ON BOTH A AND B.

MESENTERY MISCELLANEOUS TISSUE
-NECROSIS,FAT NOT SPECIFIED(MILD)
-INFLAMMATION,ACUTE NOT SPECIFIED(MILD)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86
 PRINTED: 13-APR-90
 PAGE: 1

ANIMAL NUMBER: 8600708/PRETEST= Q86D0708 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 565.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | | 1.971 | 0.3488 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | | 17.103 | 3.0271 % | 8.6773 | OK |
| 05-FEB-87 | 94/14 | | 3.048 | 0.5395 % | 1.5464 | LOW |
| 05-FEB-87 | 94/14 | | 1.355 | 0.2398 % | 0.6875 | LOW |
| 05-FEB-87 | 94/14 | | 0.721 | 0.1276 % | 0.3658 | LOW |
| 05-FEB-87 | 94/14 | | 0.065 | 0.0115 % | 0.0330 | OK |
| 05-FEB-87 | 94/14 | | 3.313 | 0.5864 % | 1.6809 | LOW |

ORGAN NAME ORGAN OBSERVATIONS >>
 << KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 EXORBITAL LACRIM NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC TISSUE IS MISSING
 PITUITARY GLAND NOT SPECIFIED(TRACE)
 DIAPHRAGM NOT SPECIFIED(TRACE)
 -INFLAMMATION, SUBACUTE

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 86005
 STUDY START DATE: 04-NOV-86

ANIMAL NUMBER: 8600728 SEX: MALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 05-FEB-87 STUDY DAY OF DEATH: 94 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 499.00 (GMS)

STUDY TYPE: SUB-CHRONIC/90 DAY FEEDING
 PRINTED: 26-MAR-90
 PAGE: 1

| DATE | DAY/WEEK OF STUDY | ORGAN | WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------|--------------|---------------------------|-----------------------------|--------------|
| 05-FEB-87 | 94/14 | BRAIN | 1.808 | 0.3623 % | 1.0000 | LOW |
| 05-FEB-87 | 94/14 | LIVER | 16.349 | 3.2764 % | 9.0426 | OK |
| 05-FEB-87 | 94/14 | KIDNEY | 3.096 | 0.6204 % | 1.7124 | OK |
| 05-FEB-87 | 94/14 | HEART | 1.347 | 0.2699 % | 0.7450 | LOW |
| 05-FEB-87 | 94/14 | SPLEEN | 0.665 | 0.1333 % | 0.3678 | LOW |
| 05-FEB-87 | 94/14 | ADRENAL | 0.068 | 0.0136 % | 0.0376 | OK |
| 05-FEB-87 | 94/14 | TESTES | 3.229 | 0.6471 % | 1.7860 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

HEART
 -INFLAMMATION, CHRONIC NOT SPECIFIED (TRACE)
 THYMUS TISSUE IS MISSING
 PANCREAS NOT SPECIFIED (TRACE)
 -ACINAR (EXOCRINE) ATROPHY TISSUE IS MISSING
 MAMMARY GLAND

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 ANIMAL NUMBER: 8600765/PRETEST= 08600765 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 276.00 (GMS)
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 1

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.767 | 0.6402 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 10.432 | 3.7797 % | 5.9038 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 2.177 | 0.7888 % | 1.2320 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.946 | 0.3428 % | 0.5354 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.625 | 0.2264 % | 0.3537 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.097 | 0.0351 % | 0.0549 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.186 | 0.0674 % | 0.1053 | HIGH |

ORGAN NAME
 WHOLE BODY
 GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS
 MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER
 -INFLAMMATION, CHRONIC, MULTIFOCAL
 KIDNEY
 -MINERALIZATION
 NOT SPECIFIED(MILD)
 NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 S-SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 2

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 ANIMAL NUMBER: 86D00768/PRETEST= Q86D00768 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 274.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | | 1.662 | 0.6066 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | | 9.319 | 3.4011 % | 5.6071 | OK |
| 12-MAR-87 | 93/14 | | 1.666 | 0.6080 % | 1.0024 | OK |
| 12-MAR-87 | 93/14 | | 0.893 | 0.3259 % | 0.5373 | OK |
| 12-MAR-87 | 93/14 | | 0.374 | 0.1365 % | 0.2250 | LOW |
| 12-MAR-87 | 93/14 | | 0.074 | 0.0270 % | 0.0445 | HIGH |
| 12-MAR-87 | 93/14 | | 0.100 | 0.0365 % | 0.0602 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

PANCREAS NOT SPECIFIED(TRACE)

MAMMARY GLAND TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 PRINTED: 02-FEB-89
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ANIMAL NUMBER: 8600772/PRETEST= 08600772 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 253.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.612 | 0.6372 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 8.613 | 3.4043 % | 5.3431 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 1.483 | 0.5862 % | 0.9200 | LOW |
| 12-MAR-87 | 93/14 | HEART | 0.787 | 0.3111 % | 0.4882 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.428 | 0.1692 % | 0.2655 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.043 | 0.0170 % | 0.0267 | OK |
| 12-MAR-87 | 93/14 | OVARIES | 0.088 | 0.0348 % | 0.0546 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC
 PANCREAS NOT SPECIFIED(TRACE)
 -CHRONIC INFLAMMATION
 TONGUE NOT SPECIFIED(TRACE)
 -MINERALIZATION, FOCAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 STUDY TYPE: SUB-CHRONIC/190 DAY FEEDING
 ANIMAL NUMBER: 86D0776/PRFEST= Q86D0776 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 261.00 (GMS)

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| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.890 | 0.7241 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 8.119 | 3.1107 % | 4.2958 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 1.771 | 0.6785 % | 0.9370 | OK |
| 12-MAR-87 | 93/14 | HEART | 0.858 | 0.3287 % | 0.4540 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.437 | 0.1674 % | 0.2312 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.068 | 0.0261 % | 0.0360 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.148 | 0.0567 % | 0.0783 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED(MILD)
 -MINERALIZATION
 OVARIES NOT SPECIFIED(TRACE)
 -PARA-OVARIAN CYST(S)
 MAMMARY GLAND TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

PRINTED: 02-FEB-89

PAGE: 5

ANIMAL NUMBER: 86D0778/PRETEST= Q86D0778 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 308.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.880 | 0.6104 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 10.895 | 3.5373 % | 5.7952 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 1.768 | 0.5740 % | 0.9404 | LOW |
| 12-MAR-87 | 93/14 | HEART | 0.964 | 0.3130 % | 0.5128 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.528 | 0.1714 % | 0.2809 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.085 | 0.0276 % | 0.0452 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.135 | 0.0438 % | 0.0718 | OK |

ORGAN NAME
 WHOLE BODY
 GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS
 << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER
 -INFLAMMATION, CHRONIC, MULTIFOCAL
 EYES & OPTIC N. NOT SPECIFIED (TRACE)
 OPTIC NERVE ONLY IS MISSING ON BOTH EYES.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
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ANIMAL NUMBER: 860806/PRETEST= 0860806 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 307.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | | 1.476 | 0.4808 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | | 13.102 | 4.2678 % | 8.8767 | HIGH |
| 12-MAR-87 | 93/14 | | 2.118 | 0.6899 % | 1.4350 | OK |
| 12-MAR-87 | 93/14 | | 1.083 | 0.3528 % | 0.7337 | OK |
| 12-MAR-87 | 93/14 | | 0.503 | 0.1638 % | 0.3408 | LOW |
| 12-MAR-87 | 93/14 | | 0.072 | 0.0235 % | 0.0488 | HIGH |
| 12-MAR-87 | 93/14 | | 0.078 | 0.0254 % | 0.0528 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 PRESENT 1X5MM LINEAR BLACK AREA.

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

THYMUS
 -HEMORRHAGE, MULTIFOCAL NOT SPECIFIED (TRACE)
 KIDNEY
 -MINERALIZATION NOT SPECIFIED (TRACE)
 UTERUS
 -SQUAMOUS METAPLASIA OF THE MUCOSA NOT SPECIFIED (MILD)
 SKIN TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 ANIMAL NUMBER: 8600806/PRETEST= Q8600806 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 307.00 (GMS)
 << MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS
 MAMMARY GLAND TISSUE IS MISSING
 DIAPHRAGM TISSUE IS MISSING

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STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 8600810/PRETEST= 086D0810 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 306.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.885 | 0.6160 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 13.343 | 4.3605 % | 7.0785 | HIGH |
| 12-MAR-87 | 93/14 | KIDNEY | 2.356 | 0.7699 % | 1.2499 | OK |
| 12-MAR-87 | 93/14 | HEART | 1.078 | 0.3523 % | 0.5719 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.654 | 0.2137 % | 0.3469 | OK |
| 12-MAR-87 | 93/14 | ADRENAL | 0.069 | 0.0225 % | 0.0366 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.090 | 0.0294 % | 0.0477 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

ADRENAL TISSUE IS MISSING
 SOLEUS NOT SPECIFIED (TRACE)
 - INFLAMMATION, CHRONIC
 SUBMANDIBULAR LN MISCELLANEOUS TISSUE
 - HYPERPLASIA, LYMPHOID NOT SPECIFIED (MILD)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 INDIVIDUAL ANIMAL DATA REPORT
 PRINTED: 02-FEB-89
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ANIMAL NUMBER: 8600814/PRETEST= 08600814 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 242.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.335 | 0.5517 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 9.680 | 4.0000 % | 7.2509 | HIGH |
| 07-JAN-87 | 29/5 | KIDNEY | 1.694 | 0.7000 % | 1.2689 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.735 | 0.3037 % | 0.5506 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.544 | 0.2248 % | 0.4075 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.080 | 0.0331 % | 0.0595 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.162 | 0.0669 % | 0.1213 | HIGH |

ORGAN NAME
 WHOLE BODY
 GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS
 THYROID GLANDS
 -CYST
 PARATHYROID
 LIVER
 -INFLAMMATION, CHRONIC, MULTIFOCAL
 MAMMARY GLAND

MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 NOT SPECIFIED (TRACE)
 TISSUE IS MISSING
 NOT SPECIFIED (TRACE)
 TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 PRINTED: 02-FEB-89
 PAGE: 10

ANIMAL NUMBER: 8600815/PRETEST= Q8600815 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 252.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.826 | 0.7246 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 9.596 | 3.8079 % | 5.2552 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 1.657 | 0.6575 % | 0.9074 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.879 | 0.3488 % | 0.4814 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.537 | 0.2131 % | 0.2941 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.074 | 0.0294 % | 0.0405 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.134 | 0.0532 % | 0.0734 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

THYROID GLANDS
 -CYST NOT SPECIFIED(TRACE)
 PARATHYROID TISSUE IS MISSING
 LIVER NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC, MULTIFOCAL
 PANCREAS NOT SPECIFIED(TRACE)
 -CHRONIC INFLAMMATION

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86

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 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 8600818/PRETEST= 08600818 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 302.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN 1.793 | 0.5937 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER 9.142 | 3.0272 % | 5.0987 | OK |
| 12-MAR-87 | 93/14 | KIDNEY 2.122 | 0.7026 % | 1.1835 | OK |
| 12-MAR-87 | 93/14 | HEART 1.067 | 0.3533 % | 0.5951 | OK |
| 12-MAR-87 | 93/14 | SPLEEN 0.503 | 0.1666 % | 0.2805 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL 0.084 | 0.0278 % | 0.0468 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES 0.114 | 0.0377 % | 0.0636 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 LIVER NOT SPECIFIED (TRACE)
 - INFLAMMATION, CHRONIC, MULTIFOCAL NOT SPECIFIED (TRACE)
 - FATTY CHANGE, FOCAL
 URINARY BLADDER TISSUE IS MISSING
 UTERUS TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 ANIMAL NUMBER: 86D0825/PRETEST= 08600825 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 241.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN | WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------|--------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.707 | 0.7083 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 8.559 | 3.5515 % | 5.0141 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 1.875 | 0.7780 % | 1.0984 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.940 | 0.3900 % | 0.5507 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.560 | 0.2324 % | 0.3281 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.117 | 0.0485 % | 0.0685 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.169 | 0.0701 % | 0.0990 | HIGH |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

THYROID GLANDS NOT SPECIFIED (TRACE)

MAMMARY GLAND TISSUE IS MISSING

EYES & OPTIC N. OPTIC NERVE ONLY IS MISSING ON BOTH EYES.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 26LP8605
 PRINTED: 02-FEB-89
 PAGE: 13

STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 ANIMAL NUMBER: 86D0832/PRETEST= Q86D0832 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 246.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.831 | 0.7443 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 9.954 | 4.0463 % | 5.4364 | HIGH |
| 07-JAN-87 | 29/5 | KIDNEY | 1.901 | 0.7728 % | 1.0382 | OK |
| 07-JAN-87 | 29/5 | HEART | 1.070 | 0.4350 % | 0.5844 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.645 | 0.2622 % | 0.3523 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.081 | 0.0329 % | 0.0442 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.147 | 0.0598 % | 0.0803 | OK |

<< ORGAN WEIGHTS >>
 << GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 KEYWORDS / PHRASES
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

ALL REQUIRED TISSUES NORMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 14

ANIMAL NUMBER: 8600833/PRETEST= 086D0833 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 311.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 2.017 | 0.6486 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 10.295 | 3.3103 % | 5.1041 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 2.038 | 0.6553 % | 1.0104 | OK |
| 12-MAR-87 | 93/14 | HEART | 1.092 | 0.3511 % | 0.5414 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.539 | 0.1733 % | 0.2672 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.081 | 0.0260 % | 0.0402 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.148 | 0.0476 % | 0.0734 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

ALL REQUIRED TISSUES NORMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 PRINTED: 02-FEB-89
 PAGE: 15
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

INDIVIDUAL ANIMAL DATA REPORT
 ANIMAL NUMBER: 86D0843/PRETEST# 086D0843 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 352.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.891 | 0.5372 % | 1.0000 / | OK |
| 12-MAR-87 | 93/14 | LIVER | 12.154 | 3.4528 % | 6.4273 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 2.274 | 0.6460 % | 1.2025 | OK |
| 12-MAR-87 | 93/14 | HEART | 1.115 | 0.3168 % | 0.5896 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.663 | 0.1884 % | 0.3506 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.097 | 0.0276 % | 0.0513 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.115 | 0.0327 % | 0.0608 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 KEYWORDS / PHRASES
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

EXORBITAL LACRIM NOT SPECIFIED(TRACE)
 -INFLAMMATION,CHRONIC
 KIDNEY NOT SPECIFIED(TRACE)
 -MINERALIZATION
 PITUITARY GLAND TISSUE IS MISSING
 EYES & OPTIC N. OPTIC NERVE ONLY IS MISSING ON BOTH EYES.
 EAR TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 86D0849/PRETEST= Q86D0849 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 293.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 2.019 | 0.6891 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 12.574 | 4.2915 % | 6.2278 | HIGH |
| 12-MAR-87 | 93/14 | KIDNEY | 2.202 | 0.7515 % | 1.0906 | OK |
| 12-MAR-87 | 93/14 | HEART | 1.192 | 0.4068 % | 0.5904 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.580 | 0.1980 % | 0.2873 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.085 | 0.0290 % | 0.0421 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.130 | 0.0444 % | 0.0644 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

- THYROID GLANDS NOT SPECIFIED(TRACE)
- CYST
- EXORBITAL LACRIM NOT SPECIFIED(TRACE)
- INFLAMMATION, CHRONIC
- KIDNEY NOT SPECIFIED(TRACE)
- INFLAMMATION, CHRONIC
- PITUITARY GLAND NOT SPECIFIED(TRACE)
- CYST(S)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 PRINTED: 02-FEB-89
 PAGE: 17

ANIMAL NUMBER: 8600849/PRETEST= Q8600849 SEX: FEMALE DOSE GROUP: 1 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 293.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

<< M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

EAR TISSUE IS MISSING

SOLEUS NOT SPECIFIED(TRACE)
 -INFLAMMATION,CHRONIC

SUBMANDIBULAR LN MISCELLANEOUS TISSUE
 -HYPERPLASIA,LYMPHOID NOT SPECIFIED(MILD)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 ANIMAL NUMBER: 86D0752/PRETEST= Q86D0752 SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 289.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.811 | 0.6266 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 10.968 | 3.7952 % | 6.0563 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 1.857 | 0.6426 % | 1.0254 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.018 | 0.3522 % | 0.5621 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.619 | 0.2142 % | 0.3418 | OK |
| 11-MAR-87 | 92/14 | ADRENAL | 0.066 | 0.0228 % | 0.0364 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.155 | 0.0536 % | 0.0856 | OK |

ORGAN NAME
 WHOLE BODY
 GROSS ORGAN OBSERVATIONS
 KEYWORDS / PHRASES
 SEVERITY GROSS FREE-TEXT COMMENTS

NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS
 MICROSCOPIC TISSUE OBSERVATIONS
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 19

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 ANIMAL NUMBER: 8600755/PRETEST= QB600755 SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 291.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORG. WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.665 | 0.5722 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 10.090 | 3.4674 % | 6.0601 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 1.946 | 0.6687 % | 1.1688 | OK |
| 11-MAR-87 | 92/14 | HEART | 0.983 | 0.3378 % | 0.5904 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.493 | 0.1694 % | 0.2961 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.085 | 0.0292 % | 0.0511 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.161 | 0.0553 % | 0.0967 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 20

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 ANIMAL NUMBER: 8600758/PRETEST= Q8600758 SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 325.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 2.058 | 0.6332 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 13.492 | 4.1514 % | 6.5559 | HIGH |
| 07-JAN-87 | 29/5 | KIDNEY | 2.144 | 0.6597 % | 1.0418 | OK |
| 07-JAN-87 | 29/5 | HEART | 1.047 | 0.3222 % | 0.5087 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.525 | 0.1708 % | 0.2697 | LOW |
| 07-JAN-87 | 29/5 | ADRENAL | 0.074 | 0.0228 % | 0.0360 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.098 | 0.0302 % | 0.0476 | LOW |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY -MINERALIZATION NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 PRINTED: 02-FEB-89
 PAGE: 21
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 86D0764/PRETEST= 086D0764 SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 337.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.745 | 0.5178 % | 1.0000 / | OK |
| 11-MAR-87 | 92/14 | LIVER | 12.480 | 3.7033 % | 7.1519 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 1.887 | 0.5599 % | 1.0814 | LOW |
| 11-MAR-87 | 92/14 | HEART | 1.166 | 0.3460 % | 0.6682 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.633 | 0.1878 % | 0.3628 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.086 | 0.0255 % | 0.0493 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.090 | 0.0267 % | 0.0516 | LOW |

<< ORGAN WEIGHTS >>
 << GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< HISTOPATHOLOGIC FINDINGS >>
 << MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86

STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 86D0774 SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 361.00 (GMS)

| DATE | DAY/WEEK OF STUDY | OR G A N | A B S O L U T E W E I G H T (G M S) | R E L A T I V E % OF B O D Y W E I G H T | OR G A N TO B R A I N W E I G H T R A T I O | OR G A N S T A T U S |
|-----------|-------------------|----------|--|---|--|-------------------------|
| 11-MAR-87 | 92/14 | BRAIN | 2.015 | 0.5582 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 14.988 | 4.1518 % | 7.4382 | HIGH |
| 11-MAR-87 | 92/14 | KIDNEY | 2.473 | 0.6850 % | 1.2273 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.378 | 0.3817 % | 0.6839 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.575 | 0.1593 % | 0.2854 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.135 | 0.0374 % | 0.0670 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.182 | 0.0504 % | 0.0903 | OK |

OR G A N W E I G H T S >>>
 <<< G R O S S O R G A N O B S E R V A T I O N S >>>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS <<< M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED(TRACE)
 MINERALIZATION

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

PRINTED: 02-FEB-89
 PAGE: 23

ANIMAL NUMBER: 86D0781/PRETEST# 086D0781 SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 277.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.861 | 0.6718 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 10.757 | 3.8834 % | 5.7802 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 1.757 | 0.6343 % | 0.9441 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.968 | 0.3495 % | 0.5202 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.569 | 0.2054 % | 0.3057 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.072 | 0.0260 % | 0.0387 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.160 | 0.0578 % | 0.0860 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

DIAPHRAGM NOT SPECIFIED (TRACE)
 -INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 24
 ANIMAL NUMBER: 8600795/PRETEST= Q8600795 SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 428.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 2.073 | 0.4843 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 15.758 | 3.6818 % | 7.6015 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 2.672 | 0.6243 % | 1.2890 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.153 | 0.2694 % | 0.5562 | LOW |
| 11-MAR-87 | 92/14 | SPLEEN | 0.619 | 0.1446 % | 0.2986 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.075 | 0.0175 % | 0.0362 | OK |
| 11-MAR-87 | 92/14 | OVARIES | 0.200 | 0.0467 % | 0.0965 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 ANIMAL NUMBER: 86D0799/PRETEST= Q86D0799 SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 249.00 (GMS)

PRINTED: 02-FEB-89
 PAGE: 25

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.783 | 0.7161 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 8.433 | 3.3867 % | 4.7297 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 1.832 | 0.7357 % | 1.0275 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.964 | 0.3871 % | 0.5407 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.663 | 0.2663 % | 0.3718 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.088 | 0.0353 % | 0.0494 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.194 | 0.0779 % | 0.1088 | HIGH |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

- LUNGS - INFLAMMATION, CHRONIC, PERIVASCULAR NOT SPECIFIED (TRACE)
- KIDNEY - INFLAMMATION, CHRONIC NOT SPECIFIED (TRACE)
- MINERALIZATION NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 26
 ANIMAL NUMBER: 8600804/PRETEST= Q8600804 SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 346.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|--------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.811 | 0.5234 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 11.490 | 3.3208 % | 6.3446 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 2.112 | 0.6104 % | 1.1662 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.033 | 0.2986 % | 0.5704 | LOW |
| 11-MAR-87 | 92/14 | SPLEEN | 0.469 | 0.1355 % | 0.2590 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.098 | 0.0283 % | 0.0541 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.138 | 0.0399 % | 0.0762 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LUNGS
 -INFLAMMATION, CHRONIC, GRANULOMATOUS NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 26LP8605
 STUDY START DATE: 10-DEC-86
 PRINTED: 02-FEB-89
 PAGE: 27
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 8600829/PRETEST= 08600829 SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 231.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.804 | 0.7810 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 9.134 | 3.9541 % | 5.0632 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 1.773 | 0.7675 % | 0.9828 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.680 | 0.2944 % | 0.3769 | LOW |
| 07-JAN-87 | 29/5 | SPLEEN | 0.464 | 0.2009 % | 0.2572 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.054 | 0.0234 % | 0.0299 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.254 | 0.1100 % | 0.1408 | HIGH |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 OVARIES PARA-OVARIAN CYST(S) PRESENT LEFT, 1CM DIAMETER.

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY
 -MINERALIZATION NOT SPECIFIED(TRACE)
 OVARIES MULTI-FOCAL(MODERATE)
 -PARA-OVARIAN CYST(S)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 28

ANIMAL NUMBER: 8600837/PRETEST= Q8600837 SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 245.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.670 | 0.6816 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 7.688 | 3.1380 % | 4.6036 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 1.602 | 0.6539 % | 0.9593 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.906 | 0.3698 % | 0.5425 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.568 | 0.2318 % | 0.3401 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.075 | 0.0306 % | 0.0449 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.174 | 0.0710 % | 0.1042 | HIGH |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605

STUDY START DATE: 10-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

PRINTED: 02-FEB-89
 PAGE: 29

ANIMAL NUMBER: 86D0838/PRETEST= 086D0838
 SEX: FEMALE
 DOSE GROUP: 2
 SACRIFICE STATUS: FINAL SACRIFICE

DATE OF DEATH: 11-MAR-87
 STUDY DAY OF DEATH: 92
 STUDY WEEK OF DEATH: 14
 TERMINAL BODY WEIGHT: 279.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.820 | 0.6523 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 8.523 | 3.0548 % | 4.6830 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 1.811 | 0.6491 % | 0.9951 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.016 | 0.3642 % | 0.5282 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.571 | 0.2047 % | 0.3137 | OK |
| 11-MAR-87 | 92/14 | ADRENAL | 0.069 | 0.0247 % | 0.0379 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.123 | 0.0441 % | 0.0676 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 ADRENAL GROWTH(S) / MASS(ES) TRACE 3X3MM BROWN NODULE ON THE RIGHT ADRENAL.

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 KIDNEY MINERALIZATION NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86

ANIMAL NUMBER: 8600840/PRETEST= 08600840
 SEX: FEMALE
 DOSE GROUP: 2
 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87
 STUDY DAY OF DEATH: 92
 STUDY WEEK OF DEATH: 14
 TERMINAL BODY WEIGHT: 395.00 (GMS)

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

PRINTED: 02-FEB-89
 PAGE: 30

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | | 1.872 | 0.4739 % | 1.0000 | LOW |
| 11-MAR-87 | 92/14 | | 13.763 | 3.4843 % | 7.3520 | OK |
| 11-MAR-87 | 92/14 | | 2.561 | 0.6484 % | 1.3681 | OK |
| 11-MAR-87 | 92/14 | | 1.104 | 0.2795 % | 0.5897 | LOW |
| 11-MAR-87 | 92/14 | | 0.829 | 0.2099 % | 0.4428 | OK |
| 11-MAR-87 | 92/14 | | 0.082 | 0.0208 % | 0.0438 | HIGH |
| 11-MAR-87 | 92/14 | | 0.191 | 0.0484 % | 0.1020 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER
 -INFLAMMATION, CHRONIC, MULTIFOCAL NOT SPECIFIED (TRACE)
 KIDNEY
 -MINERALIZATION NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 31

ANIMAL NUMBER: 86D0850/PRETEST= Q86D0850 SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 295.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|--------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.802 | 0.6108 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 10.033 | 3.4010 % | 5.5677 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 1.677 | 0.5685 % | 0.9306 | LOW |
| 11-MAR-87 | 92/14 | HEART | 0.931 | 0.3156 % | 0.5166 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.550 | 0.1864 % | 0.3052 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.068 | 0.0231 % | 0.0377 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.122 | 0.0414 % | 0.0677 | OK |

<< ORGAN WEIGHTS >>
 ABSOLUTE ORGAN WEIGHT (GMS)
 BRAIN 1.802
 LIVER 10.033
 KIDNEY 1.677
 HEART 0.931
 SPLEEN 0.550
 ADRENAL 0.068
 OVARIES 0.122

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 KEYWORDS / PHRASES
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 32

ANIMAL NUMBER: 86D0855/PRETEST= 086D0855 SEX: FEMALE DOSE GROUP: 2 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 331.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.810 | 0.5468 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 9.722 | 2.9372 % | 5.3713 | LOW |
| 11-MAR-87 | 92/14 | KIDNEY | 2.075 | 0.6269 % | 1.1464 | OK |
| 11-MAR-87 | 92/14 | HEART | 0.945 | 0.2855 % | 0.5221 | LOW |
| 11-MAR-87 | 92/14 | SPLEEN | 0.647 | 0.1955 % | 0.3575 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.097 | 0.0293 % | 0.0536 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.193 | 0.0583 % | 0.1066 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP. PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 33
 ANIMAL NUMBER: 8600749/PRETEST= 086D0749 SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 278.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 2.022 | 0.7273 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 9.830 | 3.5360 % | 4.8615 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 1.827 | 0.6572 % | 0.9036 | OK |
| 11-MAR-87 | 92/14 | HEART | 0.849 | 0.3054 % | 0.4199 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.490 | 0.1763 % | 0.2423 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.045 | 0.0162 % | 0.0223 | OK |
| 11-MAR-87 | 92/14 | OVARIES | 0.109 | 0.0392 % | 0.0539 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 LIVER NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 26LP8605
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 34

ANIMAL NUMBER: 8600751/PRETEST= 08600751 SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 339.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORG AN W E I G H T S >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|----------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.820 | 0.5369 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 11.592 | 3.4195 % | 6.3692 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 2.313 | 0.6823 % | 1.2709 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.191 | 0.3513 % | 0.6544 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.800 | 0.2360 % | 0.4396 | OK |
| 11-MAR-87 | 92/14 | ADRENAL | 0.088 | 0.0260 % | 0.0484 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.163 | 0.0481 % | 0.0896 | OK |

<< G R O S S O R G A N O B S E R V A T I O N S >>
 ORGAN NAME SEVERITY GROSS FREE-TEXT COMMENTS
 KEYWORDS / PHRASES
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED(MILD)
 -MINERALIZATION

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605

STUDY START DATE: 10-DEC-86

ANIMAL NUMBER: 8600753/PRETEST= 08600753 SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 315.00 (GMS)

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

PRINTED: 02-FEB-89
 PAGE: 35

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | | BRAIN | 1.885 | 0.5984 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | | LIVER | 9.416 | 2.9892 % | 4.9952 | LOW |
| 11-MAR-87 | 92/14 | | KIDNEY | 1.785 | 0.5667 % | 0.9469 | LOW |
| 11-MAR-87 | 92/14 | | HEART | 0.898 | 0.2851 % | 0.4764 | LOW |
| 11-MAR-87 | 92/14 | | SPLEEN | 0.460 | 0.1460 % | 0.2440 | LOW |
| 11-MAR-87 | 92/14 | | ADRENAL | 0.058 | 0.0184 % | 0.0308 | OK |
| 11-MAR-87 | 92/14 | | OVARIES | 0.116 | 0.0368 % | 0.0615 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 36

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 ANIMAL NUMBER: 8600759/PRETEST= 08600759 SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 253.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.903 | 0.7522 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 11.109 | 4.3909 % | 5.8376 | HIGH |
| 07-JAN-87 | 29/5 | KIDNEY | 1.961 | 0.7751 % | 1.0305 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.957 | 0.3783 % | 0.5029 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.586 | 0.2316 % | 0.3079 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.092 | 0.0364 % | 0.0483 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.181 | 0.0715 % | 0.0951 | HIGH |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 37

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 ANIMAL NUMBER: 8600761/PRETEST= Q36D0761 SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 345.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 2.046 | 0.5930 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 11.493 | 3.3313 % | 5.6173 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 1.986 | 0.5757 % | 0.9707 | LOW |
| 11-MAR-87 | 92/14 | HEART | 1.089 | 0.3157 % | 0.5323 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.565 | 0.1638 % | 0.2761 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.078 | 0.0226 % | 0.0381 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.182 | 0.0528 % | 0.0890 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 ANIMAL NUMBER: 8600771/PRETEST= Q8600771 SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 267.00 (GMS)
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| DATE | DAY/WEEK OF STUDY | ORGAN | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | | 1.935 | 0.7247 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | | 10.245 | 3.8371 % | 5.2946 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | | 1.851 | 0.6933 % | 0.9566 | OK |
| 07-JAN-87 | 29/5 | HEART | | 0.711 | 0.2663 % | 0.3674 | LOW |
| 07-JAN-87 | 29/5 | SPLEEN | | 0.607 | 0.2273 % | 0.3137 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | | 0.071 | 0.0266 % | 0.0367 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | | 0.131 | 0.0491 % | 0.0677 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED(TRACE)
 -MINERALIZATION

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86

ANIMAL NUMBER: 8600784/PRETEST# 08600784 SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 381.00 (GMS)

PRINTED: 02-FEB-89
PAGE: 39

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.960 | 0.5144 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 18.641 | 4.8927 % | 9.5107 | HIGH |
| 11-MAR-87 | 92/14 | KIDNEY | 3.119 | 0.8186 % | 1.5913 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.597 | 0.4192 % | 0.8148 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 3.697 | 0.9703 % | 1.8862 | HIGH |
| 11-MAR-87 | 92/14 | ADRENAL | 0.135 | 0.0354 % | 0.0689 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.194 | 0.0509 % | 0.0990 | OK |

<< G R O S S O R G A N O B S E R V A T I O N S >>
 SEVERITY GROSS FREE-TEXT COMMENTS

SPLEEN ENLARGED (SPLENOMEGALY) MARKED THE SPLEEN WAS ENLARGED BY A FACTOR OF FOUR.
 SPLEEN FIBROUS ADHESION(S) MODERATE NUMEROUS OMENTAL ADHESIONS ARE WRAPPED AROUND THE SPLEEN AND EXTEND TO THE LEFT KIDNEY.

<< M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

- SPLEEN
- NECROGRANULOMA
- LIVER
- INFLAMMATION, CHRONIC, MULTIFOCAL
- KIDNEY
- MINERALIZATION
- INFLAMMATION, CHRONIC-ACTIVE, SEROSA

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 INDIVIDUAL ANIMAL DATA REPORT
 PRINTED: 02-FEB-89
 PAGE: 40
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 86D0789/PRETEST= Q86D0789 SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 295.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.895 | 0.6424 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 12.690 | 4.3017 % | 6.6966 | HIGH |
| 07-JAN-87 | 29/5 | KIDNEY | 1.867 | 0.6329 % | 0.9852 | OK |
| 07-JAN-87 | 29/5 | HEART | 1.037 | 0.3515 % | 0.5472 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.738 | 0.2502 % | 0.3894 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.060 | 0.0203 % | 0.0317 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.141 | 0.0478 % | 0.0744 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP6605

STUDY START DATE: 10-DEC-86

DOSE GROUP: 3

SEX: FEMALE

STUDY DAY OF DEATH: 92

DATE OF DEATH: 11-MAR-87

PRINTED: 02-FEB-89
 PAGE: 41

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

DOSE GROUP: 3

STUDY WEEK OF DEATH: 14

SACRIFICE STATUS: FINAL SACRIFICE

TERMINAL BODY WEIGHT: 359.00 (GMS)

DATE OF DEATH: 11-MAR-87

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.773 | 0.4939 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 12.716 | 3.5421 % | 7.1720 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 2.289 | 0.6376 % | 1.2910 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.357 | 0.3780 % | 0.7654 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.826 | 0.2301 % | 0.4659 | OK |
| 11-MAR-87 | 92/14 | ADRENAL | 0.127 | 0.0354 % | 0.0716 | HIGH |
| 11-MAR-87 | 92/14 | OTHERS | 0.206 | 0.0574 % | 0.1162 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED(TRACE)
 -MINERALIZATION
 SOLEUS NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 ANIMAL NUMBER: 8600803/PRETEST= Q8600803 SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 443.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 2.152 | 0.4858 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 15.748 | 3.5549 % | 7.3178 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 2.591 | 0.5849 % | 1.2040 | LOW |
| 11-MAR-87 | 92/14 | HEART | 1.385 | 0.3126 % | 0.6436 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.611 | 0.1379 % | 0.2839 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.067 | 0.0151 % | 0.0311 | OK |
| 11-MAR-87 | 92/14 | OVARIES | 0.149 | 0.0336 % | 0.0692 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

- KIDNEY NOT SPECIFIED(TRACE)
- MINERALIZATION
- DIAPHRAGM NOT SPECIFIED(TRACE)
- INFLAMMATION,CHRONIC
- SOLEUS NOT SPECIFIED(TRACE)
- INFLAMMATION,CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 ANIMAL NUMBER: 86D0805/PRETEST= Q86D0805 SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 305.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.745 | 0.5721 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 10.392 | 3.4072 % | 5.9553 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 1.873 | 0.6141 % | 1.0734 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.105 | 0.3623 % | 0.6332 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.462 | 0.1515 % | 0.2648 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.064 | 0.0210 % | 0.0367 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.123 | 0.0403 % | 0.0705 | OK |

ORGAN NAME
 WHOLE BODY
 GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS
 MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86

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 PAGE: 44
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 8600826/PRETEST= 086D0826 SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 346.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 2.073 | 0.5991 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 11.143 | 3.2205 % | 5.3753 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 2.208 | 0.6382 % | 1.0651 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.281 | 0.3702 % | 0.6179 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.431 | 0.1246 % | 0.2079 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.074 | 0.0214 % | 0.0357 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.118 | 0.0341 % | 0.0569 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 26LP8605
 STUDY START DATE: 10-DEC-86
 PRINTED: 02-FEB-89
 PAGE: 45
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 86D0827/PRETEST= Q86D0827 SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 307.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.701 | 0.5541 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 8.399 | 2.7358 % | 4.9377 | LOW |
| 11-MAR-87 | 92/14 | KIDNEY | 2.256 | 0.7349 % | 1.3263 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.137 | 0.3704 % | 0.6684 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.426 | 0.1388 % | 0.2504 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.103 | 0.0336 % | 0.0606 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.141 | 0.0459 % | 0.0829 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED (MILD)
 -MINERALIZATION

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
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ANIMAL NUMBER: 86D0846/PRETEST= 086D0846 SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 287.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.717 | 0.5983 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 12.220 | 4.2578 % | 7.1171 | HIGH |
| 07-JAN-87 | 29/5 | KIDNEY | 2.117 | 0.7376 % | 1.2330 | OK |
| 07-JAN-87 | 29/5 | HEART | 1.119 | 0.3899 % | 0.6517 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.631 | 0.2199 % | 0.3675 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.083 | 0.0289 % | 0.0483 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.209 | 0.0728 % | 0.1217 | HIGH |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LUNGS -INFLAMMATION,CHRONIC,PERIVASCULAR NOT SPECIFIED(TRACE)

KIDNEY -INFLAMMATION,CHRONIC NOT SPECIFIED(TRACE)
 -MINERALIZATION NOT SPECIFIED(TRACE)

SOLEUS -INFLAMMATION,CHRONIC NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 PRINTED: 02-FEB-89
 PAGE: 47

ANIMAL NUMBER: 86D0852/PRETEST= QB6D0852 SEX: FEMALE DOSE GROUP: 3 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 251.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | | 1.872 | 0.7458 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | | 9.747 | 3.8833 % | 5.2067 | OK |
| 07-JAN-87 | 29/5 | | 1.895 | 0.7550 % | 1.0123 | OK |
| 07-JAN-87 | 29/5 | | 0.779 | 0.3104 % | 0.4161 | OK |
| 07-JAN-87 | 29/5 | | 0.526 | 0.2096 % | 0.2810 | OK |
| 07-JAN-87 | 29/5 | | 0.068 | 0.0271 % | 0.0363 | HIGH |
| 07-JAN-87 | 29/5 | | 0.124 | 0.0494 % | 0.0662 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME: KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY: NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
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ANIMAL NUMBER: 86D0766/PRETEST= Q86D0766 SEX: FEMALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 295.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.835 | 0.6220 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 12.531 | 4.2478 % | 6.8289 | HIGH |
| 12-MAR-87 | 93/14 | KIDNEY | 2.305 | 0.7814 % | 1.2561 | OK |
| 12-MAR-87 | 93/14 | HEART | 0.920 | 0.3119 % | 0.5014 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.585 | 0.1983 % | 0.3188 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.082 | 0.0278 % | 0.0467 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.161 | 0.0546 % | 0.0877 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 ANIMAL NUMBER: 86D0780/PRETEST# Q86D0780 SEK: FEMALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 326.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.601 | 0.4911 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 11.035 | 3.3850 % | 6.8926 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 1.786 | 0.5479 % | 1.1156 | LOW |
| 12-MAR-87 | 93/14 | HEART | 0.974 | 0.2988 % | 0.6084 | LOW |
| 12-MAR-87 | 93/14 | SPLEEN | 0.487 | 0.1494 % | 0.3042 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.059 | 0.0181 % | 0.0369 | OK |
| 12-MAR-87 | 93/14 | OVARIES | 0.117 | 0.0359 % | 0.0731 | OK |

<< ORGAN WEIGHTS >>
 << GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< HISTOPATHOLOGIC FINDINGS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS OBSERVATIONS / SPECIAL COMMENTS
 NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86

ANIMAL NUMBER: 86D0785/PRETEST= 086D0785 SEX: FEMALE DOSE GROUP: 4 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 315.00 (GMS)

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STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | | 1.928 | 0.6121 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | | 11.154 | 3.5410 % | 5.7853 | OK |
| 07-JAN-87 | 29/5 | | 2.112 | 0.6705 % | 1.0954 | OK |
| 07-JAN-87 | 29/5 | | 1.071 | 0.3400 % | 0.5555 | OK |
| 07-JAN-87 | 29/5 | | 0.711 | 0.2257 % | 0.3688 | OK |
| 07-JAN-87 | 29/5 | | 0.070 | 0.0222 % | 0.0363 | HIGH |
| 07-JAN-87 | 29/5 | | 0.146 | 0.0463 % | 0.0757 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 KEYWORDS / PHRASES
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 ANIMAL NUMBER: 8600787/PRETEST= Q8600787 SEX: FEMALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 315.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.699 | 0.5394 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 10.457 | 3.3197 % | 6.1548 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 1.980 | 0.6286 % | 1.1654 | OK |
| 12-MAR-87 | 93/14 | HEART | 1.903 | 0.6041 % | 1.1201 | HIGH |
| 12-MAR-87 | 93/14 | SPLEEN | 0.929 | 0.2949 % | 0.5468 | OK |
| 12-MAR-87 | 93/14 | ADRENAL | 0.099 | 0.0314 % | 0.0583 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.112 | 0.0356 % | 0.0659 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 ANIMAL NUMBER: 86D0790/PRETEST= Q86D0790 SEX: FEMALE DOSE GROUP: 4 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 316.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.749 | 0.5535 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 14.146 | 4.4766 % | 8.0881 | HIGH |
| 07-JAN-87 | 29/5 | KIDNEY | 2.361 | 0.7472 % | 1.3499 | OK |
| 07-JAN-87 | 29/5 | HEART | 1.089 | 0.3446 % | 0.6226 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.580 | 0.1835 % | 0.3316 | LOW |
| 07-JAN-87 | 29/5 | ADRENAL | 0.130 | 0.0411 % | 0.0743 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.184 | 0.0582 % | 0.1052 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SOLEUS NOT SPECIFIED (TRACE)
 INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
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STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 8600793/PRETEST= Q86D0793 SEX: FEMALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 347.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 2.125 | 0.6124 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 12.695 | 3.6585 % | 5.9741 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 2.315 | 0.6671 % | 1.0894 | OK |
| 12-MAR-87 | 93/14 | HEART | 1.247 | 0.3594 % | 0.5868 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.672 | 0.1937 % | 0.3162 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.060 | 0.0173 % | 0.0282 | OK |
| 12-MAR-87 | 93/14 | OVARIES | 0.126 | 0.0363 % | 0.0593 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

DIAPHRAGM TISSUE IS MISSING
 SOLEUS NOT SPECIFIED(TRACE)
 -INFLAMMATION,CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 INDIVIDUAL ANIMAL DATA REPORT
 PRINTED: 02-FEB-89
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ANIMAL NUMBER: 8600794/PRETEST= 08600794 SEX: FEMALE DOSE GROUP: 4 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 276.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | 1.827 | BRAIN | 1.827 | 0.6620 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | 9.067 | LIVER | 9.067 | 3.2851 % | 4.9628 | OK |
| 07-JAN-87 | 29/5 | 1.854 | KIDNEY | 1.854 | 0.6717 % | 1.0148 | OK |
| 07-JAN-87 | 29/5 | 0.860 | HEART | 0.860 | 0.3188 % | 0.4817 | OK |
| 07-JAN-87 | 29/5 | 0.487 | SPLEEN | 0.487 | 0.1764 % | 0.2666 | LOW |
| 07-JAN-87 | 29/5 | 0.058 | ADRENAL | 0.058 | 0.0210 % | 0.0317 | HIGH |
| 07-JAN-87 | 29/5 | 0.151 | OVARIES | 0.151 | 0.0547 % | 0.0826 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
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ANIMAL NUMBER: 8600811/PRETEST= Q8600811 SEX: FEMALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 302.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.773 | 0.5871 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 12.316 | 4.0781 % | 6.9464 | HIGH |
| 12-MAR-87 | 93/14 | KIDNEY | 2.058 | 0.6815 % | 1.1607 | OK |
| 12-MAR-87 | 93/14 | HEART | 1.010 | 0.3344 % | 0.5697 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.566 | 0.1874 % | 0.3192 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.116 | 0.0384 % | 0.0654 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.145 | 0.0480 % | 0.0818 | OK |

<< ORGAN WEIGHTS >>
 << GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 ANIMAL NUMBER: 8600812/PRETEST= Q8600812 SEX: FEMALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 351.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | | BRAIN | 1.870 | 0.5328 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | | LIVER | 11.768 | 3.3527 % | 6.2930 | OK |
| 12-MAR-87 | 93/14 | | KIDNEY | 2.520 | 0.7179 % | 1.3476 | OK |
| 12-MAR-87 | 93/14 | | HEART | 1.135 | 0.3234 % | 0.6070 | OK |
| 12-MAR-87 | 93/14 | | SPLEEN | 0.852 | 0.2427 % | 0.4556 | OK |
| 12-MAR-87 | 93/14 | | ADRENAL | 0.095 | 0.0271 % | 0.0508 | HIGH |
| 12-MAR-87 | 93/14 | | OVARIES | 0.163 | 0.0464 % | 0.0872 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER NOT SPECIFIED(TRACE)

KIDNEY NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605

STUDY START DATE: 1J-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

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ANIMAL NUMBER: 86D0821/PRETEST= 086D0821
 DATE OF DEATH: 07-JAN-87

SEX: FEMALE
 STUDY DAY OF DEATH: 29

DOSE GROUP: 4
 WEEK OF DEATH: 5

SACRIFICE STATUS: INTERIM SACRIFICE 2
 TERMINAL BODY WEIGHT: 257.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.715 | 0.6673 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 9.399 | 3.6572 % | 5.4805 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 1.821 | 0.7086 % | 1.0618 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.939 | 0.3654 % | 0.5475 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.502 | 0.1953 % | 0.2927 | LOW |
| 07-JAN-87 | 29/5 | ADRENAL | 0.064 | 0.0249 % | 0.0373 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.150 | 0.0584 % | 0.0875 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 LIVER - INFLAMMATION, CHRONIC, MULTIFOCAL NOT SPECIFIED (TRACE)
 KIDNEY - MINERALIZATION NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
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INDIVIDUAL ANIMAL DATA REPORT
 ANIMAL NUMBER: 8600842/PRETEST= Q8600842 SEX: FEMALE DOSE GROUP: 4 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 260.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.735 | 0.6673 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 9.240 | 3.5538 % | 5.3256 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 1.730 | 0.6654 % | 0.9971 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.940 | 0.3615 % | 0.5418 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.559 | 0.2150 % | 0.3222 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.100 | 0.0385 % | 0.0576 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.197 | 0.0758 % | 0.1135 | HIGH |

<< ORGAN WEIGHTS >>
 << GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 KEYWORDS / PHRASES
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY NOT SPECIFIED(TRACE)
 -MINERALIZATION

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
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ANIMAL NUMBER: 86D0844/PRETEST= Q86D0844 SEX: FEMALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 310.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.894 | 0.6110 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 11.376 | 3.6697 % | 6.0063 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 2.285 | 0.7371 % | 1.2064 | OK |
| 12-MAR-87 | 93/14 | HEART | 1.206 | 0.3890 % | 0.6367 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.560 | 0.1806 % | 0.2957 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.068 | 0.0219 % | 0.0359 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.113 | 0.0365 % | 0.0597 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME: SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY: NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS: DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
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ANIMAL NUMBER: 8600848/PRETEST= Q8600848 SEX: FEMALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 320.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.788 | 0.5588 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 9.499 | 2.9684 % | 5.3126 | LOW |
| 12-MAR-87 | 93/14 | KIDNEY | 2.043 | 0.6384 % | 1.1426 | OK |
| 12-MAR-87 | 93/14 | HEART | 0.876 | 0.2738 % | 0.4899 | LOW |
| 12-MAR-87 | 93/14 | SPLEEN | 0.587 | 0.1834 % | 0.3283 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.123 | 0.0384 % | 0.0688 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.182 | 0.0569 % | 0.1018 | OK |

<< ORGAN WEIGHTS >>
 << GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LUNGS
 -AGGREGATIONS OF ALVEOLAR MACROPHAGES (HISTIOCYTOSIS) NOT SPECIFIED(TRACE)
 KIDNEY
 -MINERALIZATION NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
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 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 8600851/PRETEST= Q8600851 SEX: FEMALE DOSE GROUP: 4 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 293.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN | WEIGHTS >>> ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------|--|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.824 | 0.6225 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 10.507 | 3.5860 % | 5.7604 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 1.846 | 0.6300 % | 1.0121 | OK |
| 12-MAR-87 | 93/14 | HEART | 0.855 | 0.2918 % | 0.4688 | LOW |
| 12-MAR-87 | 93/14 | SPLEEN | 0.413 | 0.1410 % | 0.2264 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.082 | 0.0280 % | 0.0450 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.148 | 0.0505 % | 0.0811 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
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 SPECIES: RAT/SPRAGUE-DAWLEY

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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 SACRIFICE STATUS: FINAL SACRIFICE
 TERMINAL BODY WEIGHT: 295.00 (GMS)

ANIMAL NUMBER: 86D0854/PRETEST= Q86D0854 SEX: FEMALE DOSE GROUP: 4
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14

| DATE | DAY/WEEK OF STUDY | ORGAN | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | BRAIN | 1.858 | 0.6298 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | LIVER | 12.029 | 4.0776 % | 6.4742 | HIGH |
| 12-MAR-87 | 93/14 | KIDNEY | KIDNEY | 2.266 | 0.7681 % | 1.2196 | OK |
| 12-MAR-87 | 93/14 | HEART | HEART | 0.966 | 0.3275 % | 0.5199 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | SPLEEN | 0.552 | 0.1871 % | 0.2971 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | ADRENAL | 0.071 | 0.0241 % | 0.0382 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | OVARIES | 0.138 | 0.0468 % | 0.0743 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: ZGLP8605

PRINTED: 02-FEB-89
 PAGE: 63

STUDY START DATE: 10-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 86D0760/PRETEST= Q86D0760 SEX: FEMALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 303.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 2.005 | 0.6617 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 10.494 | 3.4634 % | 5.2339 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 2.060 | 0.6799 % | 1.0274 | OK |
| 12-MAR-87 | 93/14 | HEART | 1.091 | 0.3601 % | 0.5441 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.608 | 0.2007 % | 0.3032 | OK |
| 12-MAR-87 | 93/14 | ADRENAL | 0.080 | 0.0264 % | 0.0399 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.099 | 0.0327 % | 0.0494 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 KIDNEY -MINERALIZATION NOT SPECIFIED(MILD)
 SOLEUS -INFLAMMATION,CHRONIC NOT SPECIFIED(MILD)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 64

ANIMAL NUMBER: 8600762/PRETEST= 086D0762 SEX: FEMALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 307.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.646 | 0.5362 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 11.498 | 3.7453 % | 6.9854 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 1.984 | 0.6463 % | 1.2053 | OK |
| 12-MAR-87 | 93/14 | HEART | 1.067 | 0.3476 % | 0.6482 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.506 | 0.1648 % | 0.3074 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.059 | 0.0192 % | 0.0358 | OK |
| 12-MAR-87 | 93/14 | OVARIES | 0.113 | 0.0368 % | 0.0697 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 PRINTED: 02-FEB-89
 PAGE: 65

INDIVIDUAL ANIMAL DATA REPORT
 ANIMAL NUMBER: 86D0769/PRETEST= Q86D0769 SEX: FEMALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 339.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.690 | 0.4985 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 12.406 | 3.6596 % | 7.3408 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 2.215 | 0.6534 % | 1.3107 | OK |
| 12-MAR-87 | 93/14 | HEART | 1.074 | 0.3168 % | 0.6355 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.594 | 0.1752 % | 0.3515 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.091 | 0.0268 % | 0.0538 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.162 | 0.0478 % | 0.0959 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 LUNGS NOT SPECIFIED(TRACE)
 -AGGREGATIONS OF ALVEOLAR MACROPHAGES (HISTIOCYTOSIS)
 KIDNEY NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC
 SOLEUS NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605

STUDY START DATE: 10-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

PRINTED: 02-FEB-89

PAGE: 66

ANIMAL NUMBER: 8600770/PRETEST= 08600770 SEX: FEMALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 359.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 2.057 | 0.5730 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 14.325 | 3.9903 % | 6.9640 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 2.251 | 0.6270 % | 1.0943 | OK |
| 12-MAR-87 | 93/14 | HEART | 1.175 | 0.3273 % | 0.5712 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.808 | 0.2251 % | 0.3928 | OK |
| 12-MAR-87 | 93/14 | ADRENAL | 0.115 | 0.0320 % | 0.0559 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.130 | 0.0362 % | 0.0632 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER NOT SPECIFIED(TRACE)

-INFLAMMATION,CHRONIC,MULTIFOVAL NOT SPECIFIED(TRACE)

KIDNEY NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP., PATH SERV GP
 SPECIES: RAT/S. RAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 PRINTED: 02-FEB-89
 PAGE: 67
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

INDIVIDUAL ANIMAL DATA REPORT
 ANIMAL NUMBER: 8600775/PRETEST= Q8600775 SEX: FEMALE DOSE GROUP: 5 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 271.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.880 | 0.6937 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 9.872 | 3.6428 % | 5.2511 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 1.935 | 0.7140 % | 1.0293 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.864 | 0.3188 % | 0.4596 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.693 | 0.2557 % | 0.3686 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.067 | 0.0247 % | 0.0356 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.164 | 0.0605 % | 0.0872 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER NOT SPECIFIED(TRACE)
 -INFLAMMATION, CHRONIC, MULTIFOCAL
 KIDNEY NOT SPECIFIED(TRACE)
 -MINERALIZATION

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-81
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 68

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 DOSE GROUP: 5
 SACRIFICE STATUS: INTERIM SACRIFICE 2
 TERMINAL BODY WEIGHT: 287.00 (GMS)

ANIMAL NUMBER: 8600782/PRETEST= Q8600782
 SEX: FEMALE
 DOSE GROUP: 5
 STUDY WEEK OF DEATH: 5
 DATE OF DEATH: 07-JAN-87
 STUDY DAY OF DEATH: 29

DATE
 07-JAN-87
 07-JAN-87
 07-JAN-87
 07-JAN-87
 07-JAN-87
 07-JAN-87

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.906 | 0.6641 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 10.520 | 3.6655 % | 5.5194 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 1.878 | 0.6544 % | 0.9853 | OK |
| 07-JAN-87 | 29/5 | HEART | 1.036 | 0.3610 % | 0.5435 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.667 | 0.2324 % | 0.3499 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.064 | 0.0223 % | 0.0336 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.127 | 0.0443 % | 0.0666 | OK |

<< ORGAN WEIGHTS >>
 GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

ORGAN NAME
 WHOLE BODY
 TISSUE / HISTOPATHOLOGIC FINDINGS
 OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

SOLEUS
 -DEGENERATION, FOCAL
 -INFLAMMATION, SUBACUTE
 NOT SPECIFIED (TRACE)
 NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 PRINTED: 02-FEB-89
 PAGE: 69
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 8600797/PRETEST= 08600797 SEX: FEMALE DOSE GROUP: 5 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 321.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.744 | 0.5433 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 11.953 | 3.7237 % | 6.8538 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 2.060 | 0.6417 % | 1.1812 | OK |
| 07-JAN-87 | 29/5 | HEART | 1.178 | 0.3670 % | 0.6755 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.578 | 0.1801 % | 0.3314 | LOW |
| 07-JAN-87 | 29/5 | ADRENAL | 0.110 | 0.0343 % | 0.0631 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.153 | 0.0477 % | 0.0877 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY
 -MINERALIZATION..... NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 26LP8605
 INDIVIDUAL ANIMAL DATA REPORT
 PRINTED: 02-FEB-89
 PAGE: 70

ANIMAL NUMBER: 8600819/PRETEST= 086D0819 SEX: FEMALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 353.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | W E I G H T S >> ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|---|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.875 | 0.5312 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 13.273 | 3.7601 % | 7.0789 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 2.523 | 0.7147 % | 1.3456 | OK |
| 12-MAR-87 | 93/14 | HEART | 1.149 | 0.3255 % | 0.6128 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.718 | 0.2034 % | 0.3829 | OK |
| 12-MAR-87 | 93/14 | ADRENAL | 0.091 | 0.0258 % | 0.0485 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.164 | 0.0465 % | 0.0875 | OK |

<< G R O S S O R G A N O B S E R V A T I O N S >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>
 HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 26LP8605

PRINTED: 02-FEB-89
 PAGE: 71

STUDY START DATE: 10-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 86D0820/PRETEST= Q86D0820 SEX: FEMALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 301.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.824 | 0.6060 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 10.182 | 3.3827 % | 5.5822 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 1.971 | 0.6548 % | 1.0806 | OK |
| 12-MAR-87 | 93/14 | HEART | 0.995 | 0.3306 % | 0.5455 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.421 | 0.1399 % | 0.2308 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.075 | 0.0249 % | 0.0411 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.133 | 0.0442 % | 0.0729 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 72

ANIMAL NUMBER: 8600831/PRETEST= Q8600831 SEX: FEMALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 315.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | | BRAIN | 1.905 | 0.6048 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | | LIVER | 10.121 | 3.2130 % | 5.3129 | OK |
| 12-MAR-87 | 93/14 | | KIDNEY | 1.878 | 0.5962 % | 0.9858 | LOW |
| 12-MAR-87 | 93/14 | | HEART | 1.007 | 0.3197 % | 0.5286 | OK |
| 12-MAR-87 | 93/14 | | SPLEEN | 0.621 | 0.1971 % | 0.3260 | LOW |
| 12-MAR-87 | 93/14 | | ADRENAL | 0.081 | 0.0257 % | 0.0425 | HIGH |
| 12-MAR-87 | 93/14 | | OVARIES | 0.170 | 0.0540 % | 0.0892 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 ANIMAL NUMBER: 86D0835/PRETEST= Q8600835 SEX: FEMALE DOSE GROUP: 5 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 258.00 (GMS)
 PRINTED: 02-FEB-89
 PAGE: 73
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.853 | 0.7182 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 8.377 | 3.2469 % | 4.5208 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 1.776 | 0.6884 % | 0.9284 | OK |
| 07-JAN-87 | 29/5 | HEART | 1.142 | 0.4426 % | 0.6163 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.440 | 0.1705 % | 0.2375 | LOW |
| 07-JAN-87 | 29/5 | ADRENAL | 0.073 | 0.0283 % | 0.0394 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.143 | 0.0554 % | 0.0772 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME
 WHOLE BODY
 NO GROSS LESIONS RECOGNIZED. PRESENT
 SEVERITY GROSS FREE-TEXT COMMENTS

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS
 NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLPR605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

PRINTED: 02-FEB-89
 PAGE: 74

ANIMAL NUMBER: 86D0841/PRETEST= Q86D0841 SEX: FEMALE DOSE GROUP: 5 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 239.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.699 | 0.7109 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 8.480 | 3.5481 % | 4.9912 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 1.576 | 0.6594 % | 0.9276 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.837 | 0.3502 % | 0.4926 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.432 | 0.1808 % | 0.2543 | LOW |
| 07-JAN-87 | 29/5 | ADRENAL | 0.082 | 0.0343 % | 0.0483 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.130 | 0.0544 % | 0.0765 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER NOT SPECIFIED (TRACE)
 -INFLAMMATION, CHRONIC, MULTIFOCAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 DOSE GROUP: 5
 SACRIFICE STATUS: FINAL SACRIFICE
 ANIMAL NUMBER: 8600845/PRETEST= Q8600845 SEX: FEMALE
 STUDY WEEK OF DEATH: 14
 TERMINAL BODY WEIGHT: 360.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.721 | 0.4781 % | 1.0000 | LOW |
| 12-MAR-87 | 93/14 | LIVER | 12.965 | 3.6014 % | 7.5334 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 2.351 | 0.6531 % | 1.3661 | OK |
| 12-MAR-87 | 93/14 | HEART | 1.091 | 0.3031 % | 0.6339 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.596 | 0.1656 % | 0.3463 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.139 | 0.0386 % | 0.0808 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.198 | 0.0550 % | 0.1150 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY (PRESENT)
 -B-ADENOMA

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 26LP8605

STUDY START DATE: 10-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

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ANIMAL NUMBER: 8600847/PRETEST= 08600847 SEX: FEMALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 359.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | | 2.120 | 0.5905 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | | 11.949 | 3.3284 % | 5.6363 | OK |
| 12-MAR-87 | 93/14 | | 2.131 | 0.5936 % | 1.0052 | LOW |
| 12-MAR-87 | 93/14 | | 1.140 | 0.3175 % | 0.5377 | OK |
| 12-MAR-87 | 93/14 | | 0.569 | 0.1585 % | 0.2684 | LOW |
| 12-MAR-87 | 93/14 | | 0.064 | 0.0178 % | 0.0302 | OK |
| 12-MAR-87 | 93/14 | | 0.102 | 0.0284 % | 0.0481 | LOW |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86

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 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 86D0856/PRETEST= Q86D0856 SEX: FEMALE DOSE GROUP: 5 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 12-MAR-87 STUDY DAY OF DEATH: 93 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 295.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 12-MAR-87 | 93/14 | BRAIN | 1.839 | 0.6234 % | 1.0000 | OK |
| 12-MAR-87 | 93/14 | LIVER | 8.978 | 3.0434 % | 4.8820 | OK |
| 12-MAR-87 | 93/14 | KIDNEY | 1.860 | 0.6305 % | 1.0114 | OK |
| 12-MAR-87 | 93/14 | HEART | 1.090 | 0.3695 % | 0.5927 | OK |
| 12-MAR-87 | 93/14 | SPLEEN | 0.466 | 0.1580 % | 0.2534 | LOW |
| 12-MAR-87 | 93/14 | ADRENAL | 0.069 | 0.0234 % | 0.0375 | HIGH |
| 12-MAR-87 | 93/14 | OVARIES | 0.162 | 0.0549 % | 0.0881 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

NO MICROSCOPIC OBSERVATIONS FOR THIS ANIMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 26LP8605
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
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INDIVIDUAL ANIMAL DATA REPORT
 ANIMAL NUMBER: 8600750/PRETEST= Q8600750 SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 345.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.935 | 0.5609 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 10.944 | 3.1722 % | 5.6558 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 2.183 | 0.6328 % | 1.1282 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.105 | 0.3203 % | 0.5711 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.498 | 0.1443 % | 0.2574 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.098 | 0.0284 % | 0.0506 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.155 | 0.0449 % | 0.0801 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS

ORGAN NAME
 WHOLE BODY
 NO GROSS LESIONS RECOGNIZED.

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

- THYROID GLANDS NOT SPECIFIED(MILD)
- CYST NOT SPECIFIED(TRACE)
- INFLAMMATION, CHRONIC
- HARDERIAN GLAND NOT SPECIFIED(TRACE)
- INFLAMMATION, CHRONIC
- THYMUS NOT SPECIFIED(TRACE)
- HEMORRHAGE, MULTIFOCAL
- LIVER NOT SPECIFIED(TRACE)
- INFLAMMATION, CHRONIC, MULTIFOCAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
DIV OF RES SUPP, PATH SERV GP
SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
STUDY NUMBER: 26LP8605

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STUDY START DATE: 10-DEC-86

STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 8600750/PRETEST= Q8600750 SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 345.00 (GMS)

<< MICROSCOPIC TISSUE OBSERVATIONS >>
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

PITUITARY GLAND TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

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LETTERMAN ARMY INSTITUTE OF RESEARCH
DIV OF RES SUPP, PATH SERV GP
SPECIES: RAT/SPRAGUE-DAWLEY
STUDY START DATE: 10-DEC-86
STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

INDIVIDUAL ANIMAL DATA REPORT
STUDY NUMBER: 2GLP8605
ANIMAL NUMBER: 86D0754/PRETEST= Q86D0754 SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: INTERIM SACRIFICE 2
DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 263.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.816 | 0.6905 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 9.327 | 3.5449 % | 5.1338 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 1.67 | 0.6354 % | 0.9202 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.860 | 0.3270 % | 0.4736 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.702 | 0.2669 % | 0.3866 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.063 | 0.0240 % | 0.0347 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.126 | 0.0479 % | 0.0694 | OK |

<< GROSS ORGAN OBSERVATIONS >>
KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

THYROID GLANDS NOT SPECIFIED(TRACE)
-CYST
EXORBITAL LACRIM TISSUE IS MISSING
KIDNEY NOT SPECIFIED(TRACE)
-MINERALIZATION
SUBMANDIBULAR LN MISCELLANEOUS TISSUE
-HYPERPLASIA, LYMPHOID NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
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ANIMAL NUMBER: 86D0757/PRETEST= Q86D0757 SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 261.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.867 | 0.7153 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 9.457 | 3.6234 % | 5.0653 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 2.016 | 0.7724 % | 1.0798 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.937 | 0.3590 % | 0.5019 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.777 | 0.2977 % | 0.4162 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.077 | 0.0295 % | 0.0412 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.163 | 0.0625 % | 0.0873 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY
 -MINERALIZATION NOT SPECIFIED(TRACE)
 -NEPHROPATHY NOT SPECIFIED(TRACE)

UTERUS
 -DILATATION OF THE UTERINE LUMEN (HYDROMETRA) NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 ANIMAL NUMBER: 8600773/PRETEST= Q8600773 SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 278.00 (GMS)

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| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.951 | 0.7018 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 9.279 | 3.3378 % | 4.7560 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 2.006 | 0.7216 % | 1.0282 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.968 | 0.3482 % | 0.4962 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.632 | 0.2273 % | 0.3239 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.080 | 0.0288 % | 0.0410 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.191 | 0.0687 % | 0.0979 | HIGH |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

- THYROID GLANDS NOT SPECIFIED (TRACE)
- CYST
- LUNGS NOT SPECIFIED (TRACE)
- INFLAMMATION, CHRONIC, FOCAL
- LIVER NOT SPECIFIED (TRACE)
- INFLAMMATION, CHRONIC, MULTIFOCAL
- PANCREAS NOT SPECIFIED (TRACE)
- ACINAR (EXOCRINE) ATROPHY
- CHRONIC INFLAMMATION

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 ANIMAL NUMBER: 86D0773/PRETEST# Q86D0773 SEX: FEMALE
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29
 TISSUE / HISTOPATHOLOGIC FINDINGS
 << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 EYES & OPTIC N. OPTIC NERVES ONLY ARE MISSING ON A AND B ONLY.
 SOLEUS NOT SPECIFIED(MILD)
 - INFLAMMATION, ACUTE

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86

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STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 SACRIFICE STATUS: INTERIM SACRIFICE 2
 TERMINAL BODY WEIGHT: 276.00 (GMS)

Appendix O (cont.): PATHOLOGY

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LETTERMAN ARMY INSTITUTE OF RESEARCH
DIV OF RES SUPP, PATH SERV GP
SPECIES: RAT/SPRAGUE-DAWLEY
INDIVIDUAL ANIMAL DATA REPORT
STUDY NUMBER: 2GLP8605
STUDY START DATE: 10-DEC-86
STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 8600779/PRETEST= 08600779 SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: INTERIM SACRIFICE 2
DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 289.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.712 | 0.5924 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 10.487 | 3.6287 % | 6.1256 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 2.009 | 0.6952 % | 1.1735 | OK |
| 07-JAN-87 | 29/5 | HEART | 1.254 | 0.4339 % | 0.7325 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.781 | 0.2702 % | 0.4562 | OK |
| 07-JAN-87 | 29/5 | ADRENAL | 0.079 | 0.0273 % | 0.0461 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.175 | 0.0606 % | 0.1022 | OK |

<< GROSS ORGAN OBSERVATIONS >>
ORGAN NAME SEVERITY GROSS FREE-TEXT COMMENTS
SKIN ALOPECIA MILD PARTIAL, RIGHT SHOULDER.

<< MICROSCOPIC TISSUE OBSERVATIONS >>
TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LIVER NOT SPECIFIED (TRACE)
-INFLAMMATION, CHRONIC, MULTIFOCAL
KIDNEY NOT SPECIFIED (TRACE)
-MINERALIZATION
PANCREAS NOT SPECIFIED (MILD)
-CHRONIC INFLAMMATION

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
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 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 ANIMAL NUMBER: 8600783/PRETEST= Q8600783 SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 357.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.990 | 0.5574 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 14.557 | 4.0776 % | 7.3151 | HIGH |
| 11-MAR-87 | 92/14 | KIDNEY | 2.533 | 0.7095 % | 1.2729 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.263 | 0.3538 % | 0.6347 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.723 | 0.2025 % | 0.3633 | OK |
| 11-MAR-87 | 92/14 | ADRENAL | 0.108 | 0.0303 % | 0.0543 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.072 | 0.0202 % | 0.0362 | LOW |

ORGAN NAME
 WHOLE BODY
 GROSS ORGAN OBSERVATIONS
 KEYWORDS / PHRASES
 SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS
 MICROSCOPIC TISSUE OBSERVATIONS
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

KIDNEY
 MINERALIZATION
 EYES & OPTIC N.
 NOT SPECIFIED (TRACE)
 OPTIC NERVE ONLY IS MISSING ON BOTH 19A AND B.

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 ANIMAL NUMBER: 8600792/PRETEST= Q8600792 SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 276.00 (GMS)

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| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.710 | 0.6196 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 9.347 | 3.3866 % | 5.4661 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 1.694 | 0.6138 % | 0.9906 | OK |
| 11-MAR-87 | 92/14 | HEART | 0.945 | 0.3424 % | 0.5526 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.475 | 0.1721 % | 0.2778 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.087 | 0.0315 % | 0.0509 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.124 | 0.0449 % | 0.0725 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

MESENTERIC LYM N TISSUE IS MISSING
 LIVER
 -INFLAMMATION, CHRONIC, MULTIFOCAL NOT SPECIFIED (TRACE)
 KIDNEY
 -MINERALIZATION NOT SPECIFIED (TRACE)
 ADRENAL
 -ACCESSORY ADRENAL NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86

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STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 86D0798/PRETEST= Q86D0798
 SEX: FEMALE
 DOSE GROUP: 6
 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87
 STUDY DAY OF DEATH: 92
 STUDY WEEK OF DEATH: 14
 TERMINAL BODY WEIGHT: 338.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|--------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 2.187 | 0.6470 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 12.101 | 3.5802 % | 5.5332 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 2.752 | 0.8142 % | 1.2583 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.251 | 0.3701 % | 0.5720 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.651 | 0.1926 % | 0.2977 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.137 | 0.0405 % | 0.0626 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.215 | 0.0636 % | 0.0983 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS
 MODERATE RT FOREARM 1X3CM WITH SCABS. LT FOREARM 1X2CM NO SCAB.

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

HARDERIAN GLAND NOT SPECIFIED(TRACE)
 -INFLAMMATION,CHRONIC
 EXORBITAL LACRIM TISSUE IS MISSING
 MESENTERIC LYM N TISSUE IS MISSING
 LIVER NOT SPECIFIED(TRACE)
 -INFLAMMATION,CHRONIC,MULTIFOCAL
 URINARY BLADDER TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86

PRINTED: 02-FEB-89
 PAGE: 88
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 8600798/PRETEST= 08600798 SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 338.00 (GMS)

<< M I C R O S C O P I C T I S S U E O B S E R V A T I O N S >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

UTERUS TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 89

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 ANIMAL NUMBER: 86D0809/PRETEST= Q86D0809 SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 380.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 2.064 | 0.5432 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 12.629 | 3.3234 % | 6.1187 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 2.158 | 0.5679 % | 1.0455 | LOW |
| 11-MAR-87 | 92/14 | HEART | 1.184 | 0.3116 % | 0.5736 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.562 | 0.1479 % | 0.2723 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.092 | 0.0242 % | 0.0446 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.200 | 0.0526 % | 0.0969 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 SEVERITY GROSS FREE-TEXT COMMENTS

ORGAN NAME
 WHOLE BODY
 NO GROSS LESIONS RECOGNIZED.

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

LUNGS
 -INFLAMMATION, CHRONIC, FOCAL
 NOT SPECIFIED (TRACE)

KIDNEY
 -MINERALIZATION
 NOT SPECIFIED (TRACE)

SUBMANDIBULAR LN
 -HYPERPLASIA, LYMPHOID
 MISCELLANEOUS TISSUE
 NOT SPECIFIED (TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 90

ANIMAL NUMBER: 86D0813/PRETEST= Q86D0813 SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 331.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHTS >> | ORGAN NAME | ABSOLUTE WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------------------|------------|-----------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | | BRAIN | 1.853 | 0.5598 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | | LIVER | 10.761 | 3.2511 % | 5.8073 | OK |
| 11-MAR-87 | 92/14 | | KIDNEY | 2.390 | 0.7221 % | 1.2898 | OK |
| 11-MAR-87 | 92/14 | | HEART | 1.146 | 0.3462 % | 0.6185 | OK |
| 11-MAR-87 | 92/14 | | SPLEEN | 0.639 | 0.1931 % | 0.3448 | LOW |
| 11-MAR-87 | 92/14 | | ADRENAL | 0.110 | 0.0332 % | 0.0594 | HIGH |
| 11-MAR-87 | 92/14 | | OVARIES | 0.143 | 0.0432 % | 0.0772 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

THYROID GLANDS NOT SPECIFIED(TRACE)
 -CYST
 EXORBITAL LACRIM
 -INFLAMMATION,CHRONIC NOT SPECIFIED(TRACE)
 THYMUS TISSUE IS MISSING
 UTERUS
 DILATATION OF THE UTERINE LUMEN (HYDROMETRA) NOT SPECIFIED(TRACE)

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
DIV OF RES SUPP, PATH SERV GP
SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
STUDY NUMBER: 2GLP8605
STUDY START DATE: 10-DEC-86

PRINTED: 02-FEB-89
PAGE: 91
STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 86D0813/PRETEST= Q86D0813
DATE OF DEATH: 11-MAR-87

SEX: FEMALE
DOSE GROUP: 6
STUDY WEEK OF DEATH: 14

SACRIFICE STATUS: FINAL SACRIFICE
TERMINAL BODY WEIGHT: 331.00 (GMS)

TISSUE / HISTOPATHOLOGIC FINDINGS

<< MICROSCOPIC TISSUE OBSERVATIONS >>
DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

MAMMARY GLAND TISSUE IS MISSING

ADRENAL NOT SPECIFIED(TRACE)
-CORTICAL NODULAR HYPERTROPHY

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY

INDIVIDUAL ANIMAL DATA REPORT
 STUDY NUMBER: 2GLP8605
 STUDY START DATE: 10-DEC-86

PRINTED: 02-FEB-89
 PAGE: 92
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

ANIMAL NUMBER: 86D0816/PRETEST= Q86D0816
 SEX: FEMALE
 DOSE GROUP: 6
 SACRIFICE STATUS: FINAL SACRIFICE

DATE OF DEATH: 11-MAR-87
 STUDY DAY OF DEATH: 92
 STUDY WEEK OF DEATH: 14
 TERMINAL BODY WEIGHT: 304.00 (GMS)

| DATE | DAY/WEEK OF STUDY | ORGAN | WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|---------|--------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.782 | 0.5862 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 11.203 | 3.6852 % | 6.2868 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 2.228 | 0.7329 % | 1.2503 | OK |
| 11-MAR-87 | 92/14 | HEART | 0.947 | 0.3115 % | 0.5314 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.512 | 0.1684 % | 0.2873 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.093 | 0.0306 % | 0.0522 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.176 | 0.0579 % | 0.0988 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS
 SKIN TISSUE IS MISSING
 MAMMARY GLAND TISSUE IS MISSING
 BONE, STERNUM TISSUE IS MISSING

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 ANIMAL NUMBER: 86D0817/PRETEST= Q86D0817 SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 340.00 (GMS)
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 93

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 1.862 | 0.5476 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 12.961 | 3.8121 % | 6.9608 | OK |
| 11-MAR-87 | 92/14 | KIDNEY | 2.154 | 0.6335 % | 1.1568 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.122 | 0.3300 % | 0.6026 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.674 | 0.1982 % | 0.3620 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.090 | 0.0265 % | 0.0483 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.156 | 0.0459 % | 0.0838 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

ALL REQUIRED TISSUES NORMAL

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 94

ANIMAL NUMBER: 86D0822/PRETEST= Q86D0822 SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 279.00 (GMS)

| DATE | DAY/WEEK OF STUDY | << ORGAN WEIGHT (GMS) >> | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN WEIGHT RATIO | BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|--------------------------|-----------------------------|---------------------------|--------------------|--------------------|--------------|
| 11-MAR-87 | 92/14 | | 1.873 | 0.6713 % | 1.0000 | 1.0000 | OK |
| 11-MAR-87 | 92/14 | | 8.323 | 2.9832 % | 4.4437 | 4.4437 | LOW |
| 11-MAR-87 | 92/14 | | 1.571 | 0.5631 % | 0.8368 | 0.8368 | LOW |
| 11-MAR-87 | 92/14 | | 0.918 | 0.3290 % | 0.4901 | 0.4901 | OK |
| 11-MAR-87 | 92/14 | | 0.485 | 0.1738 % | 0.2589 | 0.2589 | LOW |
| 11-MAR-87 | 92/14 | | 0.085 | 0.0305 % | 0.0454 | 0.0454 | HIGH |
| 11-MAR-87 | 92/14 | | 0.135 | 0.0484 % | 0.0721 | 0.0721 | OK |

<< GROSS ORGAN OBSERVATIONS >>
 ORGAN NAME KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 TISSUE / HISTOPATHOLOGIC FINDINGS DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

HARDERIAN GLAND
 - INFLAMMATION, CHRONIC NOT SPECIFIED (TRACE)
 THYMUS TISSUE IS MISSING
 LIVER NOT SPECIFIED (TRACE)
 - INFLAMMATION, CHRONIC, MULTIFOCAL NOT SPECIFIED (TRACE)
 KIDNEY NOT SPECIFIED (TRACE)
 - MINERALIZATION

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 STUDY START DATE: 10-DEC-86
 STUDY NUMBER: 2GLP8605
 PRINTED: 02-FEB-89
 PAGE: 95

ANIMAL NUMBER: 86D0830/PRETEST= Q86D0830 SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: FINAL SACRIFICE
 DATE OF DEATH: 11-MAR-87 STUDY DAY OF DEATH: 92 STUDY WEEK OF DEATH: 14 TERMINAL BODY WEIGHT: 332.00 (GMS)
 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 11-MAR-87 | 92/14 | BRAIN | 2.066 | 0.6223 % | 1.0000 | OK |
| 11-MAR-87 | 92/14 | LIVER | 9.459 | 2.8491 % | 4.5784 | LOW |
| 11-MAR-87 | 92/14 | KIDNEY | 2.164 | 0.6518 % | 1.0474 | OK |
| 11-MAR-87 | 92/14 | HEART | 1.062 | 0.3199 % | 0.5140 | OK |
| 11-MAR-87 | 92/14 | SPLEEN | 0.594 | 0.1789 % | 0.2875 | LOW |
| 11-MAR-87 | 92/14 | ADRENAL | 0.071 | 0.0214 % | 0.0344 | HIGH |
| 11-MAR-87 | 92/14 | OVARIES | 0.126 | 0.0380 % | 0.0610 | OK |

ORGAN NAME << GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS
 WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

TISSUE / HISTOPATHOLOGIC FINDINGS << MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

PANCREAS NOT SPECIFIED (TRACE)
 -CHRONIC INFLAMMATION

Appendix O (cont.): PATHOLOGY

LETTERMAN ARMY INSTITUTE OF RESEARCH
 DIV OF RES SUPP, PATH SERV GP
 SPECIES: RAT/SPRAGUE-DAWLEY
 ANIMAL NUMBER: 86D0839/PRETEST= Q86D0839 SEX: FEMALE DOSE GROUP: 6 SACRIFICE STATUS: INTERIM SACRIFICE 2
 DATE OF DEATH: 07-JAN-87 STUDY DAY OF DEATH: 29 STUDY WEEK OF DEATH: 5 TERMINAL BODY WEIGHT: 206.00 (GMS)
 STUDY START DATE: 10-DEC-86 STUDY TYPE: SUB-CHRONIC/180 DAY FEEDING
 PRINTED: 02-FEB-89
 PAGE: 96

| DATE | DAY/WEEK OF STUDY | ORGAN NAME | ABSOLUTE ORGAN WEIGHT (GMS) | RELATIVE % OF BODY WEIGHT | ORGAN TO BRAIN WEIGHT RATIO | ORGAN STATUS |
|-----------|-------------------|------------|-----------------------------|---------------------------|-----------------------------|--------------|
| 07-JAN-87 | 29/5 | BRAIN | 1.885 | 0.9150 % | 1.0000 | OK |
| 07-JAN-87 | 29/5 | LIVER | 7.632 | 3.7049 % | 4.0488 | OK |
| 07-JAN-87 | 29/5 | KIDNEY | 1.728 | 0.8388 % | 0.9167 | OK |
| 07-JAN-87 | 29/5 | HEART | 0.966 | 0.4689 % | 0.5125 | OK |
| 07-JAN-87 | 29/5 | SPLEEN | 0.649 | 0.3150 % | 0.3443 | HIGH |
| 07-JAN-87 | 29/5 | ADRENAL | 0.084 | 0.0408 % | 0.0446 | HIGH |
| 07-JAN-87 | 29/5 | OVARIES | 0.151 | 0.0733 % | 0.0801 | HIGH |

<< GROSS ORGAN OBSERVATIONS >>
 KEYWORDS / PHRASES SEVERITY GROSS FREE-TEXT COMMENTS

WHOLE BODY NO GROSS LESIONS RECOGNIZED. PRESENT

<< MICROSCOPIC TISSUE OBSERVATIONS >>
 DISTRIBUTION (SEVERITY) / SPECIAL COMMENTS

BRAIN CEREBELLUM ONLY IS MISSING.

EXORBITAL LACRIM
 -INFLAMMATION, CHRONIC NOT SPECIFIED (TRACE)

KIDNEY
 -MIMERALIZATION NOT SPECIFIED (TRACE)

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