

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Pathology-Toxicology
Project No. 972S71

Division of Biological Research
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INTRODUCTION:

The commercial grade finished product of SC-18862, a nutritive artificial sweetening agent, may contain from 0-2% of a degradation product, SC-19192. This degradation product is also produced from SC-18862 spontaneously under various laboratory conditions. The human population consuming SC-18862 would also be exposed to varying concentrations of SC-19192. Hence, the preclinical testing of SC-19192 for its potential toxicity was performed. In this toxicity study SC-19192 was administered to young albino rats of both sexes orally in the diet for five consecutive weeks. It was the intent of the study to evaluate the safety of multiples of the modal estimated daily human dosage, and to induce and define such adverse effects as might occur only at prodigious multiples of such dosages. The study was conducted at Searle Laboratories; Dr. Staunton's responsibilities were confined to microscopic evaluation of tissues and composition of the pathology report.

METHODS

Material evaluated.

SC-19192 is a fine white powder with chemical name (5-Benzyl-3, 6-dioxo-2-piperazine-acetic acid) lot No. IV-216 was employed throughout this study.

Animals, housing and diet.

One hundred young albino rats, 50 of each sex, of the Charles River CD strain were employed. They were housed individually in suspended wire mesh cages, acclimated to the laboratory environment for 2 weeks, and placed on treatment at the age of 8 weeks. Powdered Rockland Rat-Mouse Complete diet (raw meal form), Teklad, Inc. with or without the test compound added, was fed throughout the study. Chlorinated tap water was available ad libitum. Animal quarters were air conditioned with thermostats set to maintain 70°F room temperature continuously; artificial fluorescent lighting was provided on a 14 hour photoperiod.

Experimental design.

Animals were separated according to sex and assigned individual cages by a standard randomization procedure. For technical convenience, four groups of 25 rats each were employed; each group was further subdivided into dosage groups of 5 animals each as follows:

Dose Level	Dosage g/Kg/day	Multiples of Estimated Human dose*	No. of Rats Per Group		Total rats 2 groups
			M	F	
Control	0	—	5	5	20
Low	1	67	5	5	20
Medium	2	133	5	5	20
High	4	267	5	5	20
Very High	6	400	5	5	20

* 7.5 MPK daily orally (assumes 25% decomposition of 30 MPK SC-18862 dose to 27 kg human).

Statistical procedures.

The experimental animals comprised of four 25-rat groups, two replicate groups of each sex. One group of each sex received periodic hematology, urinalysis, and plasma biochemistry studies. Therefore, the tables of average body weight, food consumption and dosage, and the table of organ weights at autopsy, show pooled averages for both replicates: 10 rats per point. The remaining tables of averages are based on one replicate only and thus have 5 rats per point.

Treated group means (pooled in the case of the organ weights) were tested for statistically significant differences from control using Student's t-test. Those means showing significant differences have been marked with asterisks (*) in the summary tables. Many of the tables also show "Least Significant Differences" to aid in comparison of groups by inspection. The calculation of these significant differences was based on pooled within-group variances and on the average numbers of observations in the several groups involved, so that their agreement with the significance tests shown by asterisks is close, but not necessarily exact.

Although not shown in the tables, groups were compared statistically by a second procedure, the Rank Sum test, in parallel with the t-test. Any discrepancies between the indications of the two statistical tests were taken into account in the interpretation of the data.

Certain measurements were transformed to the logarithm prior to statistical evaluation. The purpose of the transformation was to improve

the approximation of the data to the Gaussian error distribution. Means reported for such transformed measurements are geometric, rather than arithmetic means. "Least Significant Differences" are quoted as percentages of the smaller of the two means (control or treatment) being compared. In this way an adjustment may be made for the fact that additive differences in the logarithmically transferred scale become multiplicative ratios when returned to the original scale of measurement. The variables treated in this way were the body and autopsy organ weights.

It may be noted, finally, that the 5 percent level of statistical significance has been assigned per comparison, rather than per table or per experiment. Thus, in the absence of biological effects of treatment, chance alone would have led to statistically significant differences once in every twenty comparisons on the average.

Administration of test material.

Treated groups were fed diets prepared by incorporating SC-19192 into the basal diet on a w/w basis with thorough dry mixing in a Hobart Model V-1401 mixer. Fresh diets were prepared each week.

Fresh diet was continuously available in individual feeder jars. Group dosage calculations were made from group mean body weight and group mean food consumption determinations performed once a week. Food spillage by individual animals was recorded at these intervals and food consumption data from the rats that spilled was not used for dosage calculations.

Physical examinations and observations.

Animals were observed daily for survival. General posture, locomotion, behavior, level of motor activity and external appearance of pelage, teeth and body orifices were evaluated prior to the initiation of compound administration and concurrent with the body weight measurement. Ophthalmoscopic exams (direct and/or indirect) were performed by Dr. Youkilis. All rats were examined initially prior to treatment and again at termination of the study.

Clinical laboratory procedures.

Hematologic and clinical chemical examinations, and urinalysis were performed periodically on one group of 50 rats, containing 5 males and 5 females from each dosage group.

Hematology. Blood specimens were collected from ether-anesthetized rats via the jugular vein of each rat 5 days prior to treatment and again after 2 and 5 weeks of treatment; the following parameters were measured:

<u>Parameter</u>	<u>Method</u>
Packed Cell volume	Micro method ¹
Hemoglobin	Cyanmethemoglobin ²
Total RBC Count	Coulter Counter ³
Total WBC Count	Coulter Counter ³
Differential WBC Count	Smear ⁴
Prothrombin Time	Quick ^{5,6}
Coagulation Time	Sabrazé's method ⁷

Clinical chemistry. Blood specimens were collected from ether-anesthetized rats via the jugular vein, 5 days prior to treatment and again after 2 and 5 weeks of treatment. Determinations of the following parameters were made on serum separated from blood after clotting:

<u>Parameter</u>	<u>Method</u>
Blood (serum)urea nitrogen	Urograph method ⁸
Glutamic pyruvic transaminase	Autoanalyzer ⁹
Alkaline phosphatase	Klein et al. ¹⁰
Bilirubin	Malloy & Evelyn ^{11,12}
Glucose	Nelson & Somogyi ^{13,14}
Total amino nitrogen	Oser ¹⁵
Ornithine carbamyl transferase	Reichard & Moore ^{16,17}

Urinalysis. Urine specimens were collected immediately prior to treatment and again after 2 and 5 weeks of treatment from rats housed individually in metabolism cages for 7-8 hours. The following parameters were measured:

<u>Parameter</u>	<u>Method</u>
Specific gravity	Total solids meter
pH	Bili-Labstix (Ames)
Occult blood	Bili-Labstix (Ames)
Protein	Bili-Labstix (Ames)
Glucose	Bili-Labstix (Ames)
Ketones	Bili-Labstix (Ames)
Bilirubin	Bili-Labstix (Ames)

Postmortem examination procedures.

All animals from each of the five groups were fasted overnight, selected at random, anesthetized with ether, and exsanguinated via the abdominal aorta. The rats were immediately autopsied, and entire organs or representative tissue blocks from stomach, small and large intestine, lung, heart, liver, kidney, spleen, pancreas, pituitary, thyroid-parathyroid, adrenal, ovary, uterus, vagina, testes, ventral and dorsal prostate, seminal vesicle, mammary gland, urinary bladder, lymph node (mesenteric), nerve (brachial plexus), brain, bone (rib junction), bone with marrow (femoral), salivary gland (submax.), eye (right) and thymus were removed following gross examination. Underlined organs were weighed fresh.

Pituitary and eye were fixed in Zenker's acetic solution; all other tissues were fixed in cold neutral buffered formalin. Representative blocks of the above fixed tissues from control and SC-19192 treated groups were embedded in paraffin, sectioned and stained. Coronal sections of brain at the level of the optic chiasma (cerebrum) and the trapezoid body (cerebellum) were examined microscopically after luxol fast blue - PAS - hematoxylin staining. Sections of all other tissues were stained with hematoxylin-eosin and examined microscopically.

Stained glass mounted tissue sections from 86 rats (all 20 control, very high, and high dose animals; 11 medium and 10 low dose animals) were examined microscopically, including all lesions observed grossly. See Table 9 for a listing of specific tissues examined.

RESULTS

ANTEMORTEM OBSERVATIONS

Growth, food consumption, drug consumption, and survival.

Group mean body weight, food and compound consumption are presented in Tables 1 and 2; and Figs. 1, 2 and 3. No dose related variations in body weight or food consumption were observed in the treated groups; mean terminal body weight for female rats were significantly decreased at the very high dose level. This is attributed to a proportional reduction in the absolute food consumption (gm/rat/day) in the very high dose level group females. Group mean values (g/kg/day) for compound ingestion (Table 2; figure 3) were within roughly 5% of the proposed doses of 1, 2, 4 and 6 g/kg SC-19192.

Survival was 100% both in control and treated groups. No deaths occurred among the 100 animals studied.

Physical and behavioral signs.

No adverse physical or behavioral effects were apparent in treated animals. General posture and locomotion, behavior and level of motor activity, pelage, body orifices and excretions were unremarkable throughout the study.

No compound related eye lesions were detected by ophthalmoscopic examination terminally.

Clinical laboratory findings.

Hematology. Periodic evaluation of red and white cell parameters revealed nothing remarkable; coagulation measurements performed likewise were not altered in treated animals. Group mean values are presented in Tables 3-5; individual values are tabulated in the Appendix.

Table 1

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SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Body Weight and Weight Gain

(Mean values for groups of 10 rats)

Treatment Group	Days of Treatment and Intervening Periods					
	0	7	14	21	28	35
<u>Body Weight, grams</u>						
<u>Males</u>						
Control	212	238	293	328	358	377
Low Dose	215	241	287	326	365	377
Medium Dose	218	247	298	336	365	385
High Dose	222	245	286	329	358	382
Very High Dose	216	239	285	308	333	346
<u>Females</u>						
Control	187	206	225	233	243	250
Low Dose	182	196	211	221	231	238
Medium Dose	177	188	204	217	224	234
High Dose	183	199	214	218	231	238
Very High Dose	187	202	215	217	223	226*
<u>Weight Gain, grams per day</u>						
<u>Males</u>						
Control	3.71	7.77	5.06	4.20	2.71	
Low Dose	3.74	6.66	5.51	5.57	1.69	
Medium Dose	4.06	7.26	5.43	4.26	2.86	
High Dose	3.23	5.91	6.14	4.11	3.46	
Very High Dose	3.31	6.49	3.31	3.57	1.91	
<u>Females</u>						
Control	2.77	2.71	1.22	1.55	1.01	
Low Dose	2.02	2.27	1.56	1.51	1.02	
Medium Dose	1.63	2.33	1.93	1.09	1.47	
High Dose	2.30	2.28	0.72	1.89	1.05	
Very High Dose	2.16	1.92	0.39	0.82	0.54	

* Mean differs significantly from control ($p < 0.05$).

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Food Intake and Dosage

(Mean values for groups of 10 rats.)

Treatment Group	Intervals between Days of Treatment				
	7	14	21	28	35
FOOD INTAKE, grams per rat per day					
<u>Males</u>					
Control	20.5	25.5	27.6	27.8	30.1
Low Dose	19.9	26.3	28.4	29.9	31.3
Medium Dose	21.1	26.7	25.9	27.5	29.0
High Dose	21.4	25.7	28.1	28.3	30.0
Very High Dose	19.8	26.8	25.2	27.3	29.5
<u>Females</u>					
Control	17.9	20.2	22.4	20.7	23.8
Low Dose	18.0	20.4	22.1	24.6	23.7
Medium Dose	17.2	20.4	20.5	24.6	22.5
High Dose	17.5	20.9	19.3	23.6	24.3
Very High Dose	17.9	18.4	19.8	21.5	21.9
FOOD INTAKE, grams per kg per day					
<u>Males</u>					
Control	91.1	96.0	88.9	81.0	81.9
Low Dose	87.3	99.4	92.7	86.5	84.4
Medium Dose	90.8	97.9	81.7	78.5	77.6
High Dose	91.9	96.8	91.2	82.3	81.2
Very High Dose	87.0	102.3	85.1	85.2	86.4
<u>Females</u>					
Control	90.7	93.9	98.0	87.2	96.5
Low Dose	95.4	100.5	102.5	108.6	101.0
Medium Dose	94.0	103.9	97.7	111.6	98.2
High Dose	91.8	101.5	89.2	104.9	103.7
Very High Dose	91.9	88.4	91.5	97.7	97.5
DOSAGE, mg per kg per day					
<u>Males</u>					
Low Dose	900	1024	1167	1081	908
Medium Dose	1870	2017	1979	1963	1985
High Dose	3784	3989	4371	4114	3549
Very High Dose	5376	6324	6455	6389	6117
<u>Females</u>					
Low Dose	973	1025	1182	1086	985
Medium Dose	1917	2120	2287	2232	2008
High Dose	3747	4142	4274	4194	4647
Very High Dose	5625	5412	6573	6644	6388

Fig. 1
 SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT
 Body Weight; group mean values (gm)

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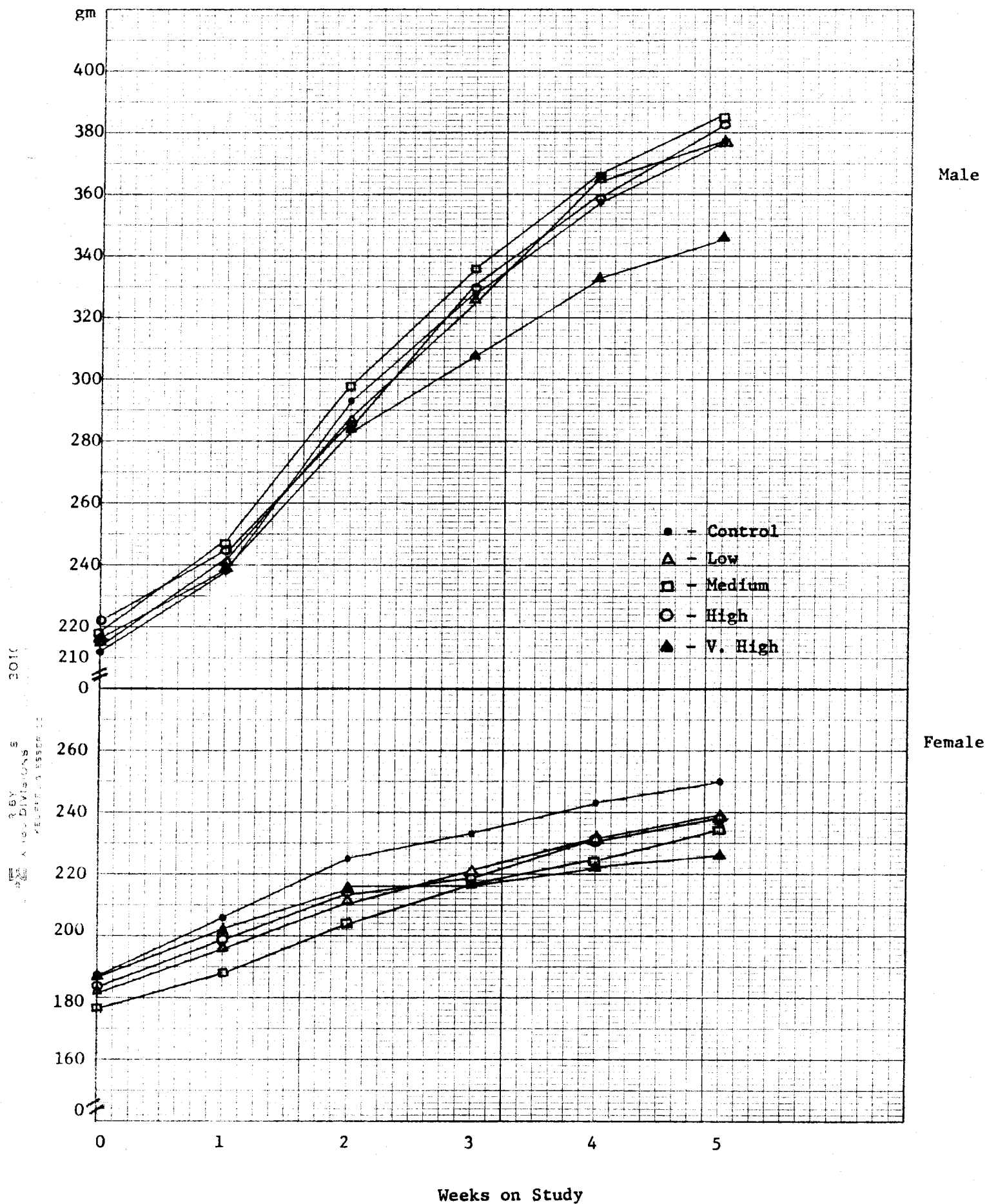


Fig. 2
 SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT
 Food Consumption; group mean values (gm/kg/day)

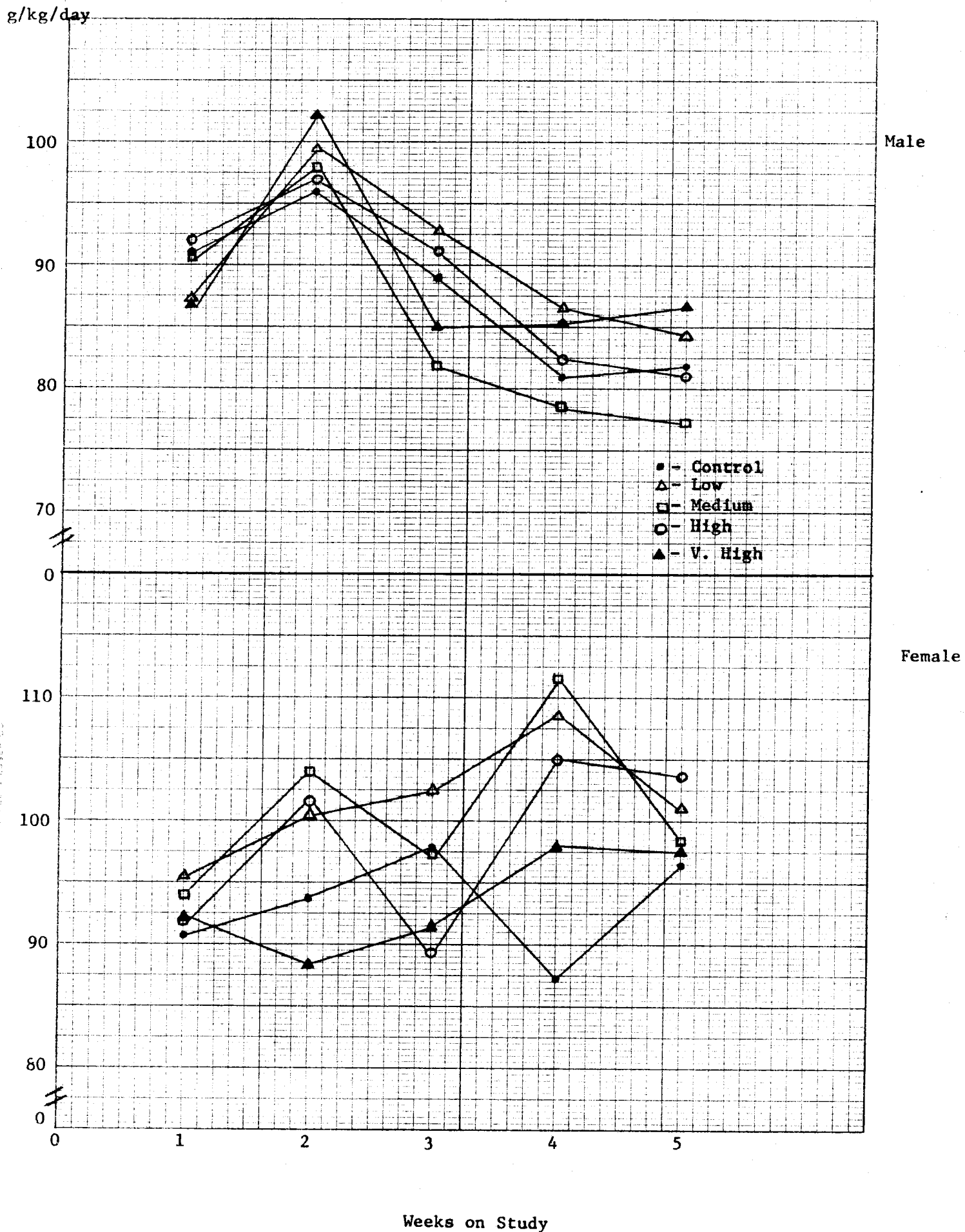


Fig. 3

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

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Compound Consumption; group mean values (g/kg/day)

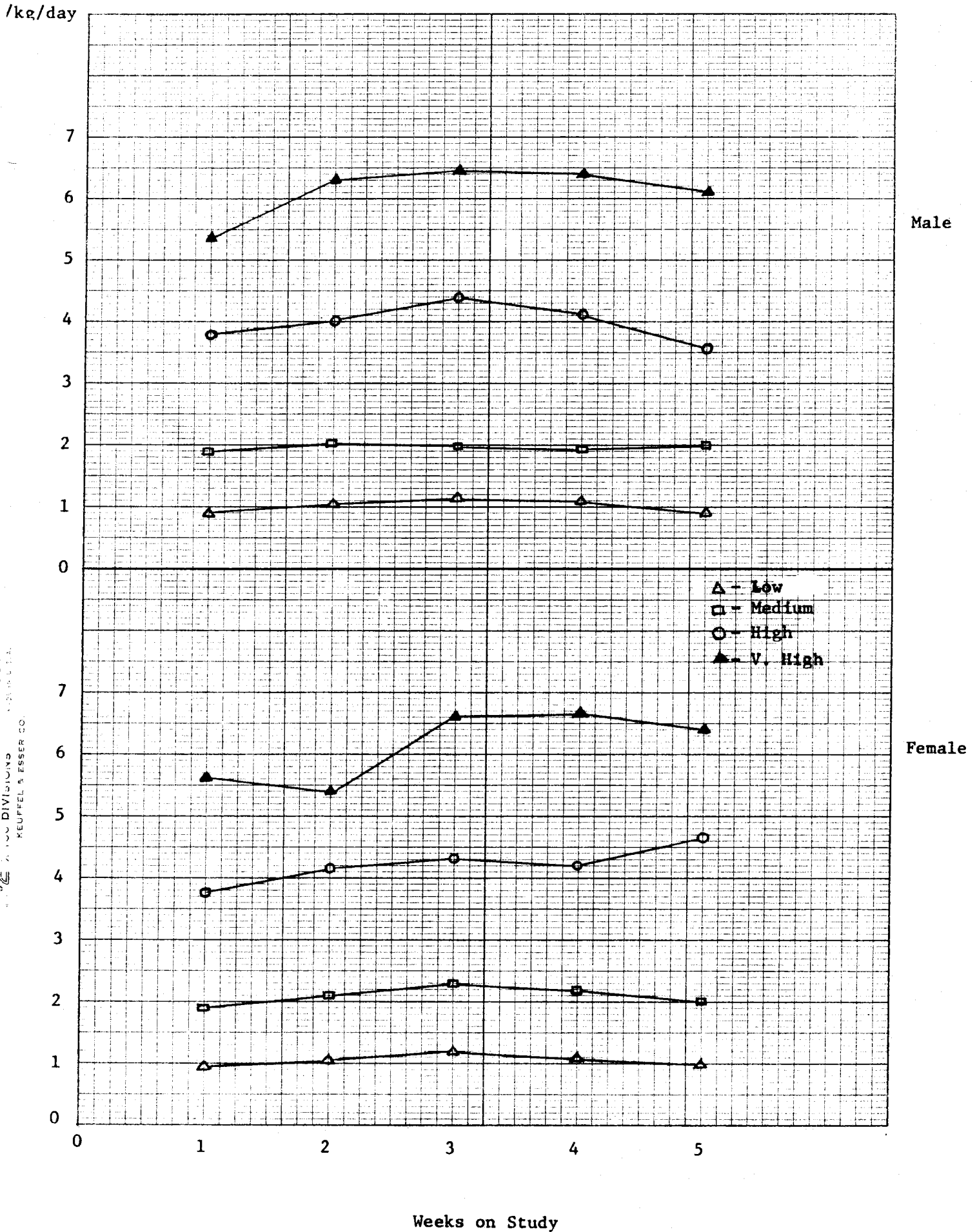


Table 3

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Hematology: Red Cell Data

(Arithmetic means for 5 rats per group, with least significant differences)

Treatment Group	Days of Treatment								
	-5			14			35		
	Hgb (g%)	Hct (%)	RBC x10 ⁶ /cmm	Hgb (g%)	Hct (%)	RBC x10 ⁶ /cmm	Hgb (g%)	Hct (%)	RBC x10 ⁶ /cmm
Males									
Control	14.0	45	6.65	15.3	47	7.48	17.0	49	8.20
Low Dose	13.5	44	6.61	16.0	48	7.39	16.1	49	8.09
Medium Dose	14.2	46	6.96	15.7	46	7.07	16.4	50	8.11
High Dose	13.9	46	6.68	15.2	46	7.41	16.0*	49	8.24
Very High Dose	13.5	44	6.58	15.6	47	7.40	16.3	49	8.41
Standard Error of Mean	0.29	0.92	0.19	0.36	0.98	0.20	0.33	0.97	0.18
Least Significant Difference	0.84	2.72	0.55	1.07	2.88	0.59	0.98	2.86	0.53
Females									
Control	15.0	44	6.97	14.6	45	7.44	15.8	47	7.88
Low Dose	15.1	45	6.99	15.2	44	6.96*	16.3	46	7.66
Medium Dose	14.8	45	6.93	15.1	46	7.27	15.8	46	8.02
High Dose	15.2	45	6.84	15.4*	47*	7.58	16.7	47	6.70*
Very High Dose	14.5	44	6.80	14.3	45	7.59	15.9	48	8.19
Standard Error of Mean	0.36	0.90	0.19	0.27	0.81	0.15	0.45	1.02	0.23
Least Significant Difference	1.05	2.59	0.56	0.80	2.4	0.45	1.32	3.0	0.69

* Mean differs significantly from Control (P < 0.05).

Table 4

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Hematology: White Cell Data

(Arithmetic means for 5 rats per group, with least significant differences)

Treatment Group	Days of Treatment														
	-5					14					35				
	Differential					Differential					Differential				
	WBC x10 ³ /cmm	PMN %	Lym %	Mon %	Eos %	WBC x10 ³ /cmm	PMN %	Lym %	Mon %	Eos %	WBC x10 ³ /cmm	PMN %	Lym %	Mon %	Eos %
Males															
Control	12.0	14	86	0.6	0.0	11.4	14	85	0.4	0.8	17.3	10	88	0.2	1.0
Low Dose	12.0	12	87	0.6	0.6	15.4	18	80	0	1.4	24.7	11	88	0	1.0
Medium Dose	10.1	14	83	2.2	0.2	19.6*	9	90	0.2	1.2	22.0	5	95*	0.2	0
High Dose	12.0	10	87	0.8	2.0	13.2	11	87	0.4	1.2	15.3	9	90	0	0.6
Very High Dose	12.9	10	89	0.4	0.6	14.6	8	90	0.8	0.4	12.9	8	91	0	0.4
Standard Error of Mean	1.01					2.69					2.9				
Least Significant Differences	2.99					7.93					8.5				
Females															
Control	12.1	12	87	0.6	0.4	11.2	8	91	0	1.0	13.7	10	89	0	1.2
Low Dose	10.7	14	85	0.2	1.2	11.8	12	87	0.2	1.0	16.7	12	88	0.2	0.4
Medium Dose	14.9	10	89	0.6	0.6	14.0	17	82	0.2	0.8	16.5	9	90	0	1.0
High Dose	15.8	14	84	0.6	0.8	13.0	11	88	0.4	1.0	15.7	6	92	0.2	1.6
Very High Dose	16.8	10	90	0.2	0.2	14.3	15	85	0	0.8	14.0	6	94	0	0.8
Standard Error of Mean	2.9					-					1.81				
Least Significant Differences	8.5					-					5.35				

* Mean differs significantly from control (p < 0.05)

Table 5

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Coagulation Time

(Arithmetic means for 5 rats per group, with least significant differences)

Treatment Group	Days of Treatment			
	-5	35	-5	35
	Coagulation Time (seconds)	Coagulation Time (seconds)	Prothrombin Time (seconds)	Prothrombin Time (seconds)
<u>Males</u>				
Control	103	124	12.3	12.3
Low Dose	117	130	11.2	11.8 ⁺
Medium Dose	139	114	12.8	11.7 ⁺
High Dose	124	130	12.4	13.1 ⁺
Very High Dose	133	132	12.6	13.2
Standard Error of Mean	5.82	7.38	0.40	0.51
Least Significant Differences	17.17	21.80	1.18	1.52
<u>Females</u>				
Control	124	153	12.0	13.7
Low Dose	121	135	12.0	11.9* ⁺
Medium Dose	106	143	12.0	12.4
High Dose	129	136	11.9	12.8
Very High Dose	126	139	12.4	12.9 ⁺
Standard Error of Mean	7.42	6.91	0.26	0.50
Least Significant Differences	21.90	20.40	0.77	1.47

* Mean differs significantly from control ($p < 0.05$)

+ Only 4 animals

No biologically meaningful variation attributable to compound administration was observed in the parameters measured. Occasionally some of the treated groups showed inconsistent significant deviations from the control in some of the parameters; but all of these are considered to be chance deviations and do not have any biological significance.

Clinical chemistry. Group mean plasma biochemistry values are presented in Table 6 and 7; individual values are tabulated in the Appendix. No unequivocal evidence of treatment related alteration of plasma biochemistry values was evident in groups receiving SC-19192. However, treated females exhibited a significant decrease in serum glutamic pyruvic transaminase (GPT) and alkaline phosphatase (AP) values at low and medium dose levels and not observed at the high and very high dose levels; such alteration was inversely related to dosage, and was not considered biologically meaningful.

Urinalysis. The results of urinalysis (pH, specific gravity, volume, blood, protein, glucose, ketones, microscopic ketones) showed no evidence of treatment related effect. Results of urinalysis performed on individual rats are presented in the Appendix.

POSTMORTEM OBSERVATIONS

Organ weights.

Group mean organ weight values are presented in Table 8; individual values may be found in the Appendix. No evidence of dose related organ weight alterations was evident. Numerous organs (heart, seminal vesicle, prostate, adrenal, pituitary, ovaries and uterus) in the very high dose group exhibited statistically significant, generally non dose-related decreases in absolute weight; such weight alterations appear to be proportional to the reduced body weights.

Table 6

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Blood Plasma Biochemistry

(Arithmetic means for 5 rats per group, with least significant differences)

Treatment Group	Days of Treatment									
	-5					14				
	BUN mg%	GPT I.U.	AP I.U.	Glucose mg%	Total Amino Nitrogen mg%	BUN mg%	GPT I.U.	AP I.U.	Glucose mg%	Total Amino Nitrogen mg%
Males										
Control	13.3	12.4	245	142	8.46	15.5	36.6	205	115	7.90
Low Dose	18.2	16.6	262	146	8.27	21.0	28.8	225	111	7.88
Medium Dose	13.0	15.4	283	124	8.76	14.4	20.8	215	100	8.36
High Dose	11.3	15.4	220	138	8.51	14.5	20.8	186	119	8.12
Very High Dose	11.7	16.8	238	137	8.04	16.1	21.0	182	124	7.99
Standard Error of Mean	2.4	3.08	22.7	8.4	-	2.1	9.4	19	10.1	-
Least Significant Differences	7.16	9.1	67	24.8	0.70	6.3	27.9	56.0	29.7	0.84
Females										
Control	13.0	3.6	204	135	8.55	14.6	19.0	181	160	7.38
Low Dose	15.1	12.4*	132*	129	8.09	15.2	18.2	109*	136	7.78
Medium Dose	15.6	8.0	178	129	8.34	15.9	19.8	132	131	7.73
High Dose	15.5	8.0	161	134	8.74	17.8	18.8	139	137	7.84
Very High Dose	13.5	8.8	166	129	8.90	16.4	19.0	153	129	7.50
Standard Error of Mean	0.98	2.5	17.3	7.2	-	0.77	2.13	16.6	5.6	-
Least Significant Differences	2.90	7.5	51	21.3	0.60	2.28	6.27	48.9	16.5	0.98

* Mean differs significantly from control ($p < 0.05$)

Table 7

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Post-Treatment Blood Plasma Biochemistry

(Arithmetic means for 5 rats per group, with least significant differences)

Treatment Group	BUN mg%	GPT I.U.	AP I.U.	Glucose mg%	Amino	Bilirubin mg%	OCT. I.U.
					Nitrogen mg%		
Males							
Control	18.0	27.4	138	187	6.31	.16	0.24
Low Dose	15.5	22.2	132	185	6.32	.15	0.25
Medium Dose	18.1	27.0	185	186	6.68	.14*	0.25
High Dose	16.4	30.0	137	182	7.35*	.15	0.26
Very High Dose	18.5	23.4	119	188	6.01	.16	0.12
Standard Error of Mean	0.95	3.5	18.3	8.6	-	.01	0.13
Least Significant Differences	2.96	10.4	54.0	25.3	0.81	.02	0.39
Females							
Control	15.5	31.2	129	192	6.50	.18	0.09
Low Dose	19.2	21.6*	79*	175	6.75	.17	0.12
Medium Dose	17.8	22.0*	93	184	6.21	.17	0.36
High Dose	19.4	27.8	121	191	6.22	.17	0.15
Very High Dose	19.2	24.2	112	168	6.73	.17	0.22
Standard Error of Mean	1.51	2.9	14.5	8.8	-	.01	0.10
Least Significant Differences	4.5	8.54	43	25.9	0.68	.03	0.31

* Mean differs significantly from control ($p < 0.05$)

Table 8

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Body and Organ Weights at Autopsy

(Geometric means for 10 rats per group, with least significant percentage differences)

Treatment Group	Final Body Weight (g)	Heart (g)	Liver (g)	Kidneys (g)	Adrenals (mg)	Thyroids (mg)	Pitu- itary (mg)	Testes (g)	Sem. Ves- icle (mg)	Prostate (mg)	Ovaries (mg)	Uterus (mg)
Males												
Control	374	1.134	11.68	2.417	55.8	19.68	12.25	3.271	237.5	522		
Low Dose	374	1.164	11.51	2.538	60.0	19.85	11.44	2.925	219.4	483		
Medium Dose	384	1.154	12.30	2.612	483	17.40	12.54	3.304	207.8	527		
High Dose	381	1.100	12.07	2.605	49.6	19.92	12.73	3.232	216.5	508		
Very High Dose	345	1.004*	10.68	2.378	53.7	17.31	10.64	3.218	160.7*	377*		
Least Significant Differences	10%	12.6%	12.25%	11.12%	16.1%	23.2%	20.3%	13.7%	21.9%	19.5%		
Females												
Control	249	.825	8.12	1.664	68.1	15.71	13.73				84.9	540
Low Dose	238	.896	7.97	1.706	66.8	16.98	11.88				74.3	520
Medium Dose	233	.759	7.76	1.580	66.3	15.85	11.60*				81.5	434
High Dose	238	.785	7.91	1.632	62.1	15.92	14.03				76.7	544
Very High Dose	226*	.751	7.59	1.611	58.2*	14.83	11.08*				70.8*	399*
Least Significant Differences	7.5%	16.5%	9.7%	11.7%	16.6%	14.0%	17.5%				14.6%	26.0%

*Mean differs significantly from control (p < 0.05)

Gross and microscopic findings.

The organs examined microscopically are presented in Table 9. The histopathologic report from Dr. Staunton of Microscopy for Biological Research, Ltd., on complete microscopic findings for each animal is presented in toto in the appendix. Summary of pathological conditions is presented in Tables 10-12. The conclusions thereof are reproduced below.

Tissues from 86 rats were processed and examined histologically. Multiple pathologic conditions were found. Most findings are considered to be incidental and unrelated to drug ingestion.

Of possible significance is the incidence of parasites in the colon. In the control group 6 of 20 rats were affected, in the very high dose group there were none of 20. The high group contained 1 out of 20. A few rats in the medium and low groups were affected and these were not statistically significant.

Mild chronic murine bronchitis was found in most animals and is considered to be due to intercurrent colony infection. Focal mild chronic inflammation of the liver and bile ducts was also a frequent finding and believed to be due to intercurrent colony infection.

The finding of crystalline deposits is believed to be artifact and not significant.

SUMMARY AND CONCLUSIONS

A five week oral toxicity study was conducted employing continuous dietary administration to 8 week old Charles River CD strain male and female rats. The compound was administered at mean daily dosage levels

Table 9

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

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SUMMARY OF ORGANS EXAMINED

	TOTAL	CONTROL	V. HIGH	HIGH	MEDIUM
NO. ANIMALS EXAMINED	86	20	20	20	11
LUNG	79	20	19	20	10
BRONCHUS	79	20	19	20	10
HEART	80	20	20	20	10
ARTERY	57	19	19	19	0
KIDNEY	81	20	20	20	10
BILE DUCT	84	20	20	20	10
LIVER	84	20	20	20	10
SPLEEN	80	20	20	20	10
BRAIN	60	20	20	20	0
MENINGES	60	20	20	20	0
STOMACH	75	19	18	20	9
COLON	80	20	20	20	10
INTESTINE	80	20	20	20	10
PANCREAS	80	20	20	20	10
ISLET	80	20	20	20	10
ADRENAL CORTEX	80	20	20	20	10
ADRENAL MEDULLA	80	20	20	20	10
PITUITARY	78	19	20	19	10
THYROID	80	20	20	20	10
PARATHYROID	30	2	12	8	6
LYMPH NODE	75	17	19	19	10
SALIVARY GLAND	59	19	20	20	0
THYMUS	59	20	20	19	0
TESTIS	40	10	10	10	5
SEMINAL VESICLE	40	10	10	10	5
PROSTATE	40	10	10	10	5
BLADDER	78	20	19	20	10
OVARY	40	10	10	10	5
UTERUS	40	10	10	10	5
OVIDUCT	4	1	2	1	0
BONE	60	20	20	20	0
BONE MARROW	60	20	20	20	0
MUSCLE	60	20	20	20	0
SKIN AND SUBCUTIS	80	20	20	20	10
MAMMARY GLAND	76	20	17	19	10
EYE	63	20	20	20	2
VAGINA	39	9	10	10	5
NERVE	60	20	20	20	0
TOTALS	2460	655	664	664	237

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

SUMMARY OF ORGANS EXAMINED

	TOTAL	LOW
NO. ANIMALS EXAMINED	86	15
LUNG	79	10
BRONCHUS	79	10
HEART	80	10
ARTERY	57	0
KIDNEY	81	11
BILE DUCT	84	14
LIVER	84	14
SPLEEN	80	10
BRAIN	60	0
MENINGES	60	0
STOMACH	75	9
COLON	80	10
INTESTINE	80	10
PANCREAS	80	10
ISLET	80	10
ADRENAL CORTEX	80	10
ADRENAL MEDULLA	80	10
PITUITARY	78	10
THYROID	80	10
PARATHYROID	30	2
LYMPH NODE	75	10
SALIVARY GLAND	59	0
THYMUS	59	0
TESTIS	40	5
SEMINAL VESICLE	40	5
PROSTATE	40	5
BLADDER	78	9
OVARY	40	5
UTERUS	40	5
OVIDUCT	4	0
BONE	60	0
BONE MARROW	60	0
MUSCLE	60	0
SKIN AND SUBCUTIS	80	10
MAMMARY GLAND	76	10
EYE	63	1
VAGINA	39	5
NERVE	60	0
TOTALS	2460	240

Table 10
SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

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TABLE BB 1
NON-NEOPLASTIC TOTALS

	TOTAL	CONTROL	V. HIGH	HIGH	MEDIUM
LUNG					
GRANULOMATOUS INFLAMMATION	1/ 79	0/ 20	1/ 19	0/ 20	0/ 10
LUNG					
ABSCCESS	2/ 79	0/ 20	0/ 19	1/ 20	0/ 10
LUNG					
EDEMA, PULMONARY	1/ 79	0/ 20	1/ 19	0/ 20	0/ 10
LUNG					
CHRONIC MURINE BRONCHITIS	76/ 79	18/ 20	19/ 19	20/ 20	9/ 10
HEART					
FIBROSIS	4/ 80	0/ 20	2/ 20	1/ 20	0/ 10
HEART					
CHRONIC INFLAMMATION	18/ 80	6/ 20	3/ 20	5/ 20	1/ 10
KIDNEY					
HYDRONEPHROSIS	4/ 81	0/ 20	2/ 20	0/ 20	0/ 10
KIDNEY					
CALCIFICATION	13/ 81	4/ 20	4/ 20	1/ 20	2/ 10
KIDNEY					
NECROSIS	1/ 81	0/ 20	1/ 20	0/ 20	0/ 10
KIDNEY					
GLOMERULOSCLEROSIS	2/ 81	0/ 20	0/ 20	0/ 20	0/ 10
KIDNEY					
CHRONIC INFLAMMATION	31/ 81	5/ 20	9/ 20	7/ 20	5/ 10
KIDNEY					
PIGMENT	2/ 81	0/ 20	0/ 20	0/ 20	0/ 10
BILE DUCT					
HYPERPLASIA	4/ 84	0/ 20	2/ 20	0/ 20	0/ 10
BILE DUCT					
CHRONIC INFLAMMATION	31/ 84	8/ 20	8/ 20	4/ 20	5/ 10
LIVER					
VACUOLIZATION	2/ 84	0/ 20	1/ 20	0/ 20	0/ 10
LIVER					
NECROSIS	8/ 84	1/ 20	4/ 20	0/ 20	1/ 10
LIVER					
CHRONIC INFLAMMATION	43/ 84	10/ 20	11/ 20	10/ 20	6/ 10
STOMACH					
CHRONIC INFLAMMATION	1/ 75	0/ 19	0/ 18	0/ 20	1/ 9
COLON					
CRYSTALLINE DEPOSITS	20/ 80	7/ 20	3/ 20	5/ 20	4/ 10
COLON					
PARASITES	11/ 80	6/ 20	0/ 20	1/ 20	3/ 10
COLON					
CHRONIC INFLAMMATION	1/ 80	1/ 20	0/ 20	0/ 20	0/ 10
INTESTINE					
CRYSTALLINE DEPOSITS	26/ 80	3/ 20	10/ 20	4/ 20	3/ 10
PANCREAS					
CHRONIC INFLAMMATION	15/ 80	4/ 20	6/ 20	2/ 20	2/ 10
ADRENAL CORTEX					
VACUOLIZATION, SLIGHT	52/ 80	13/ 20	13/ 20	11/ 20	8/ 10
THYROID					
CHRONIC INFLAMMATION	1/ 80	0/ 20	0/ 20	0/ 20	0/ 10

Table 10 (cont.)

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

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SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE 3B 1

NON-NEOPLASTIC TOTALS

	TOTAL	CONTROL	V. HIGH	HIGH	MEDIUM
TESTIS					
HYPOSERMIA	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5
SEMINAL VESICLE					
CALCIFICATION	1/ 40	0/ 10	1/ 10	0/ 10	0/ 5
PROSTATE					
CHRONIC INFLAMMATION	6/ 40	1/ 10	1/ 10	3/ 10	1/ 5
BLADDER					
HYPERPLASIA, SLIGHT	1/ 78	0/ 20	0/ 19	1/ 20	0/ 10
BLADDER					
CALCULUS	5/ 78	1/ 20	0/ 19	1/ 20	0/ 10
BLADDER					
ACUTE INFLAMMATION	1/ 78	0/ 20	1/ 19	0/ 20	0/ 10
BLADDER					
CHRONIC INFLAMMATION	1/ 78	0/ 20	0/ 19	0/ 20	1/ 10
OVARY					
PIGMENT	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5
OVARY					
CYST	1/ 40	1/ 10	0/ 10	0/ 10	0/ 5
SKIN AND SUBCUTIS					
ULCERATION	2/ 80	0/ 20	1/ 20	0/ 20	0/ 10
VAGINA					
CYST	1/ 39	0/ 9	0/ 10	1/ 10	0/ 5
VAGINA					
CHRONIC INFLAMMATION	2/ 39	0/ 9	1/ 10	0/ 10	0/ 5

Table 10 (cont.)

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SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT
SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUPTABLE 3B 1
NON-NEOPLASTIC TOTALS

	TOTAL	LOW
LUNG		
GRANULOMATOUS INFLAMMATION	1/ 79	0/ 10
LUNG		
ABSCESS	2/ 79	1/ 10
LUNG		
EDEMA, PULMONARY	1/ 79	0/ 10
LUNG		
CHRONIC MURINE BRONCHITIS	76/ 79	10/ 10
HEART		
FIBROSIS	4/ 80	1/ 10
HEART		
CHRONIC INFLAMMATION	18/ 80	3/ 10
KIDNEY		
HYDRONEPHROSIS	4/ 81	2/ 11
KIDNEY		
CALCIFICATION	13/ 81	2/ 11
KIDNEY		
NECROSIS	1/ 81	0/ 11
KIDNEY		
GLOMERULOSCLEROSIS	2/ 81	2/ 11
KIDNEY		
CHRONIC INFLAMMATION	31/ 81	5/ 11
KIDNEY		
PIGMENT	2/ 81	2/ 11
BILE DUCT		
HYPERPLASIA	4/ 84	2/ 14
BILE DUCT		
CHRONIC INFLAMMATION	31/ 84	6/ 14
LIVER		
VACUOLIZATION	2/ 84	1/ 14
LIVER		
NECROSIS	8/ 84	2/ 14
LIVER		
CHRONIC INFLAMMATION	43/ 84	6/ 14
STOMACH		
CHRONIC INFLAMMATION	1/ 75	0/ 9
COLON		
CRYSTALLINE DEPOSITS	20/ 80	1/ 10
COLON		
PARASITES	11/ 80	1/ 10
COLON		
CHRONIC INFLAMMATION	1/ 80	0/ 10
INTESTINE		
CRYSTALLINE DEPOSITS	26/ 80	5/ 10
PANCREAS		
CHRONIC INFLAMMATION	15/ 80	1/ 10
ADRENAL CORTEX		
VACUOLIZATION, SLIGHT	52/ 80	7/ 10
THYROID		
CHRONIC INFLAMMATION	1/ 80	1/ 10

SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE BB 1
NON-NEOPLASTIC TOTALS

	TOTAL	LOW
TESTIS		
HYOSPERMIA	1/ 40	1/ 5
SEMINAL VESICLE		
CALCIFICATION	1/ 40	0/ 5
PROSTATE		
CHRONIC INFLAMMATION	6/ 40	0/ 5
BLADDER		
HYPERPLASIA, SLIGHT	1/ 78	0/ 9
BLADDER		
CALCULUS	5/ 78	3/ 9
BLADDER		
ACUTE INFLAMMATION	1/ 78	0/ 9
BLADDER		
CHRONIC INFLAMMATION	1/ 78	0/ 9
OVARY		
PIGMENT	1/ 40	1/ 5
OVARY		
CYST	1/ 40	0/ 5
SKIN AND SUBCUTIS		
ULCERATION	2/ 80	1/ 10
VAGINA		
CYST	1/ 39	0/ 5
VAGINA		
CHRONIC INFLAMMATION	2/ 39	1/ 5

Table 11
SC-12192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT
SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

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TABLE BB 2
NON-NEOPLASTIC MALE

	TOTAL	CONTROL	V. HIGH	HIGH	MEDIUM
LUNG					
GRANULOMATOUS INFLAMMATION	0/ 39	0/ 10	0/ 9	0/ 10	0/ 5
LUNG					
ABSCESS	2/ 39	0/ 10	0/ 9	1/ 10	0/ 5
LUNG					
EDEMA, PULMONARY	1/ 39	0/ 10	1/ 9	0/ 10	0/ 5
LUNG					
CHRONIC MURINE BRONCHITIS	39/ 39	10/ 10	9/ 9	10/ 10	5/ 5
HEART					
FIBROSIS	3/ 40	0/ 10	2/ 10	1/ 10	0/ 5
HEART					
CHRONIC INFLAMMATION	13/ 40	3/ 10	3/ 10	4/ 10	1/ 5
KIDNEY					
HYDRONEPHROSIS	0/ 41	0/ 10	0/ 10	0/ 10	0/ 5
KIDNEY					
CALCIFICATION	2/ 41	1/ 10	0/ 10	0/ 10	0/ 5
KIDNEY					
NECROSIS	0/ 41	0/ 10	0/ 10	0/ 10	0/ 5
KIDNEY					
GLOMERULOSCLEROSIS	1/ 41	0/ 10	0/ 10	0/ 10	0/ 5
KIDNEY					
CHRONIC INFLAMMATION	16/ 41	2/ 10	5/ 10	3/ 10	2/ 5
KIDNEY					
PIGMENT	1/ 41	0/ 10	0/ 10	0/ 10	0/ 5
BILE DUCT					
HYPERPLASIA	3/ 44	0/ 10	1/ 10	0/ 10	0/ 5
BILE DUCT					
CHRONIC INFLAMMATION	17/ 44	5/ 10	4/ 10	2/ 10	2/ 5
LIVER					
VACUOLIZATION	2/ 44	0/ 10	1/ 10	0/ 10	0/ 5
LIVER					
NECROSIS	3/ 44	0/ 10	1/ 10	0/ 10	1/ 5
LIVER					
CHRONIC INFLAMMATION	28/ 44	7/ 10	6/ 10	6/ 10	5/ 5
STOMACH					
CHRONIC INFLAMMATION	1/ 38	0/ 9	0/ 10	0/ 10	1/ 4
COLON					
CRYSTALLINE DEPOSITS	15/ 40	5/ 10	1/ 10	5/ 10	3/ 5
COLON					
PARASITES	9/ 40	4/ 10	0/ 10	1/ 10	3/ 5
COLON					
CHRONIC INFLAMMATION	1/ 40	1/ 10	0/ 10	0/ 10	0/ 5
INTESTINE					
CRYSTALLINE DEPOSITS	12/ 40	1/ 10	5/ 10	3/ 10	1/ 5
PANCREAS					
CHRONIC INFLAMMATION	9/ 40	2/ 10	5/ 10	0/ 10	1/ 5
ADRENAL CORTEX					
VACUOLIZATION, SLIGHT	34/ 40	9/ 10	7/ 10	8/ 10	5/ 5
THYROID					
CHRONIC INFLAMMATION	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5

Table 11 (cont.)

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT
SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

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TABLE BB 2
NON-NEOPLASTIC MALE

	TOTAL	CONTROL	V. HIGH	HIGH	MEDIUM
TESTIS					
HYPOSERMIA	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5
SEMINAL VESICLE					
CALCIFICATION	1/ 40	0/ 10	1/ 10	0/ 10	0/ 5
PROSTATE					
CHRONIC INFLAMMATION	6/ 40	1/ 10	1/ 10	3/ 10	1/ 5
BLADDER					
HYPERPLASIA, SLIGHT	0/ 39	0/ 10	0/ 9	0/ 10	0/ 5
BLADDER					
CALCULUS	5/ 39	1/ 10	0/ 9	1/ 10	0/ 5
BLADDER					
ACUTE INFLAMMATION	0/ 39	0/ 10	0/ 9	0/ 10	0/ 5
BLADDER					
CHRONIC INFLAMMATION	0/ 39	0/ 10	0/ 9	0/ 10	0/ 5
OVARY					
PIGMENT	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
OVARY					
CYST	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
SKIN AND SUBCUTIS					
ULCERATION	0/ 40	0/ 10	0/ 10	0/ 10	0/ 5

Table 11 (cont.)

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT
SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

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TABLE BB 2
NON-NEOPLASTIC MALE

	TOTAL	LOW
LUNG		
GRANULOMATOUS INFLAMMATION	0/ 39	0/ 5
LUNG		
ABSCESS	2/ 39	1/ 5
LUNG		
EDEMA, PULMONARY	1/ 39	0/ 5
LUNG		
CHRONIC MURINE BRONCHITIS	39/ 39	5/ 5
HEART		
FIBROSIS	3/ 40	0/ 5
HEART		
CHRONIC INFLAMMATION	13/ 40	2/ 5
KIDNEY		
HYDRONEPHROSIS	0/ 41	0/ 6
KIDNEY		
CALCIFICATION	2/ 41	1/ 6
KIDNEY		
NECROSIS	0/ 41	0/ 6
KIDNEY		
GLOMERULOSCLEROSIS	1/ 41	1/ 6
KIDNEY		
CHRONIC INFLAMMATION	16/ 41	4/ 6
KIDNEY		
PIGMENT	1/ 41	1/ 6
ILE DUCT		
HYPERPLASIA	3/ 44	2/ 9
BILE DUCT		
CHRONIC INFLAMMATION	17/ 44	4/ 9
LIVER		
VACUOLIZATION	2/ 44	1/ 9
LIVER		
NECROSIS	3/ 44	1/ 9
LIVER		
CHRONIC INFLAMMATION	28/ 44	4/ 9
STOMACH		
CHRONIC INFLAMMATION	1/ 38	0/ 5
COLON		
CRYSTALLINE DEPOSITS	15/ 40	1/ 5
COLON		
PARASITES	9/ 40	1/ 5
COLON		
CHRONIC INFLAMMATION	1/ 40	0/ 5
INTESTINE		
CRYSTALLINE DEPOSITS	12/ 40	2/ 5
PANCREAS		
CHRONIC INFLAMMATION	9/ 40	1/ 5
ADRENAL CORTEX		
VACUOLIZATION, SLIGHT	34/ 40	5/ 5
THYROID		
CHRONIC INFLAMMATION	1/ 40	1/ 5

Table 11 (cont.)

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT
 SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

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TABLE 8B 2
 NON-NEOPLASTIC MALE

	TOTAL	LOW
TESTIS		
HYOSPERMIA	1/ 40	1/ 5
SEMINAL VESICLE		
CALCIFICATION	1/ 40	0/ 5
PROSTATE		
CHRONIC INFLAMMATION	6/ 40	0/ 5
BLADDER		
HYPERPLASIA, SLIGHT	0/ 39	0/ 5
BLADDER		
CALCULUS	5/ 39	3/ 5
BLADDER		
ACUTE INFLAMMATION	0/ 39	0/ 5
BLADDER		
CHRONIC INFLAMMATION	0/ 39	0/ 5
OVARY		
PIGMENT	0/ 0	0/ 0
OVARY		
CYST	0/ 0	0/ 0
SKIN AND SUBCUTIS		
ULCERATION	0/ 40	0/ 5

Table 12

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT
SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

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TABLE BB 3
NON-NEOPLASTIC FEMALE

	TOTAL	CONTROL	V. HIGH	HIGH	MEDIUM
LUNG					
GRANULOMATOUS INFLAMMATION	1/ 40	0/ 10	1/ 10	0/ 10	0/ 5
LUNG					
ABSCESS	0/ 40	0/ 10	0/ 10	0/ 10	0/ 5
LUNG					
EDEMA, PULMONARY	0/ 40	0/ 10	0/ 10	0/ 10	0/ 5
LUNG					
CHRONIC MURINE BRONCHITIS	37/ 40	8/ 10	10/ 10	10/ 10	4/ 5
HEART					
FIBROSIS	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5
HEART					
CHRONIC INFLAMMATION	5/ 40	3/ 10	0/ 10	1/ 10	0/ 5
KIDNEY					
HYDRONEPHROSIS	4/ 40	0/ 10	2/ 10	0/ 10	0/ 5
KIDNEY					
CALCIFICATION	11/ 40	3/ 10	4/ 10	1/ 10	2/ 5
KIDNEY					
NECROSIS	1/ 40	0/ 10	1/ 10	0/ 10	0/ 5
KIDNEY					
GLOMERULOSCLEROSIS	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5
KIDNEY					
CHRONIC INFLAMMATION	15/ 40	3/ 10	4/ 10	4/ 10	3/ 5
KIDNEY					
PIGMENT	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5
BILE DUCT					
HYPERPLASIA	1/ 40	0/ 10	1/ 10	0/ 10	0/ 5
BILE DUCT					
CHRONIC INFLAMMATION	14/ 40	3/ 10	4/ 10	2/ 10	3/ 5
LIVER					
VACUOLIZATION	0/ 40	0/ 10	0/ 10	0/ 10	0/ 5
LIVER					
NECROSIS	5/ 40	1/ 10	3/ 10	0/ 10	0/ 5
LIVER					
CHRONIC INFLAMMATION	15/ 40	3/ 10	5/ 10	4/ 10	1/ 5
STOMACH					
CHRONIC INFLAMMATION	0/ 37	0/ 10	0/ 8	0/ 10	0/ 5
COLON					
CRYSTALLINE DEPOSITS	5/ 40	2/ 10	2/ 10	0/ 10	1/ 5
COLON					
PARASITES	2/ 40	2/ 10	0/ 10	0/ 10	0/ 5
COLON					
CHRONIC INFLAMMATION	0/ 40	0/ 10	0/ 10	0/ 10	0/ 5
INTESTINE					
CRYSTALLINE DEPOSITS	14/ 40	2/ 10	5/ 10	1/ 10	2/ 5
PANCREAS					
CHRONIC INFLAMMATION	6/ 40	2/ 10	1/ 10	2/ 10	1/ 5
ADRENAL CORTEX					
VACUOLIZATION, SLIGHT	18/ 40	4/ 10	6/ 10	3/ 10	3/ 5
THYROID					
CHRONIC INFLAMMATION	0/ 40	0/ 10	0/ 10	0/ 10	0/ 5

Table 12 (cont.)
 SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT 32
 SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE BB 3
 NON-NEOPLASTIC FEMALE

	TOTAL	CONTROL	V. HIGH	HIGH	MEDIUM
BLADDER					
HYPERPLASIA, SLIGHT	1/ 39	0/ 10	0/ 10	1/ 10	0/ 5
BLADDER					
CALCULUS	0/ 39	0/ 10	0/ 10	0/ 10	0/ 5
BLADDER					
ACUTE INFLAMMATION	1/ 39	0/ 10	1/ 10	0/ 10	0/ 5
BLADDER					
CHRONIC INFLAMMATION	1/ 39	0/ 10	0/ 10	0/ 10	1/ 5
OVARY					
PIGMENT	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5
OVARY					
CYST	1/ 40	1/ 10	0/ 10	0/ 10	0/ 5
SKIN AND SUBCUTIS					
ULCERATION	2/ 40	0/ 10	1/ 10	0/ 10	0/ 5
VAGINA					
CYST	1/ 39	0/ 9	0/ 10	1/ 10	0/ 5
VAGINA					
CHRONIC INFLAMMATION	2/ 39	0/ 9	1/ 10	0/ 10	0/ 5

Table 12(cont.)

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT
SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

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TABLE BB 3
NON-NEOPLASTIC FEMALE

	TOTAL	LOW
LUNG		
GRANULOMATOUS INFLAMMATION	1/ 40	0/ 5
LUNG		
ABSCCESS	0/ 40	0/ 5
LUNG		
EDEMA PULMONARY	0/ 40	0/ 5
LUNG		
CHRONIC MURINE BRONCHITIS	37/ 40	5/ 5
HEART		
FIBROSIS	1/ 40	1/ 5
HEART		
CHRONIC INFLAMMATION	5/ 40	1/ 5
KIDNEY		
HYDRONEPHROSIS	4/ 40	2/ 5
KIDNEY		
CALCIFICATION	11/ 40	1/ 5
KIDNEY		
NECROSIS	1/ 40	0/ 5
KIDNEY		
GLOMERULOSCLEROSIS	1/ 40	1/ 5
KIDNEY		
CHRONIC INFLAMMATION	15/ 40	1/ 5
KIDNEY		
PIGMENT	1/ 40	1/ 5
ILE DUCT		
HYPERPLASIA	1/ 40	0/ 5
BILE DUCT		
CHRONIC INFLAMMATION	14/ 40	2/ 5
LIVER		
VACUOLIZATION	0/ 40	0/ 5
LIVER		
NECROSIS	5/ 40	1/ 5
LIVER		
CHRONIC INFLAMMATION	15/ 40	2/ 5
STOMACH		
CHRONIC INFLAMMATION	0/ 37	0/ 4
COLON		
CRYSTALLINE DEPOSITS	5/ 40	0/ 5
COLON		
PARASITES	2/ 40	0/ 5
COLON		
CHRONIC INFLAMMATION	0/ 40	0/ 5
INTESTINE		
CRYSTALLINE DEPOSITS	14/ 40	4/ 5
PANCREAS		
CHRONIC INFLAMMATION	6/ 40	0/ 5
ADRENAL CORTEX		
VACUOLIZATION, SLIGHT	18/ 40	2/ 5
THYROID		
CHRONIC INFLAMMATION	0/ 40	0/ 5

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT
SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE BB 3
NON-NEOPLASTIC FEMALE

	TOTAL	LOW
BLADDER		
HYPERPLASIA, SLIGHT	1/ 39	0/ 4
BLADDER		
CALCULUS	0/ 39	0/ 4
BLADDER		
ACUTE INFLAMMATION	1/ 39	0/ 4
BLADDER		
CHRONIC INFLAMMATION	1/ 39	0/ 4
OVARY		
PIGMENT	1/ 40	1/ 5
OVARY		
CYST	1/ 40	0/ 5
SKIN AND SUBCUTIS		
ULCERATION	2/ 40	1/ 5
VAGINA		
CYST	1/ 39	0/ 5
VAGINA		
CHRONIC INFLAMMATION	2/ 39	1/ 5

of 0, 1, 2, 4 and 6g/kg \pm 5%, multiples of 0, 67, 133, 267 and 400 times respectively, the modal oral human dosage. Physical examinations were performed terminally. Ophthalmoscopic examination was conducted at pre-Rx and terminally. Hematology, clinical chemistry and urinalysis parameters were evaluated at pre Rx, 2 and 5 weeks. All animals were promptly necropsied and representative tissues from control and treated animals processed for microscopic examination.

Survival in both the control and the treated groups was 100%. Physical examination findings were unremarkable. Food consumption and body weight gain were comparable between the control and the treated animals except the very high dose females which showed a significant reduction in the terminal body weight. This is attributed to a proportional decrease in the absolute food consumption (gm/rat/day).

Findings for hematology, clinical chemistry and urinalysis were generally unremarkable. However, low and medium dose level females exhibited a significant decrease in GPT and AP values. Such alteration was inversely related to dosage and was not considered biologically meaningful.

No evidence of treatment related organ weight alterations was evident. Group mean organ weights of treated groups are comparable with the concurrent controls. Postmortem findings, gross and microscopic, were unremarkable; several instances of incidental disease were observed, but no indication of compound related observations was present.

It is concluded that continuous dietary administration of SC-19192 to 8 week old rats of both sexes for 5 consecutive weeks at approximately 1, 2, 4 and 6 g/kg causes no biologically meaningful alterations in clinical

laboratory or postmortem findings; moderate decrease in terminal body weight and in absolute (gm/rat/day) food consumption occurred in very high dose level females.

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APPENDIX TABLES
OF VALUES OF
INDIVIDUAL RATS

Appendix Table 1

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Hematology: Red Cell Data

(Individual Values: Group A)

Treatment and Rat No.	Days of Treatment								
	-5			14			35		
	Hgb (g%)	Hct (%)	RBC x10 ⁶ /cmm	Hgb (g%)	Hct (%)	RBC x10 ⁶ /cmm	Hgb (g%)	Hct (%)	RBC x10 ⁶ /cmm
<u>Control</u>									
10CM	15.6	48	7.49	15.6	52	8.42	17.3	50	8.79
12CM	12.9	42	6.27	14.6	44	6.83	16.1	49	7.83
17CM	13.2	44	6.63	15.5	46	7.92	16.6	51	8.51
18CM	13.8	45	6.13	15.0	45	6.94	18.2	45	7.72
21CM	14.5	47	6.72	15.6	47	7.31	16.8	49	8.15
<u>Low Dose</u>									
2LM	13.2	43	6.14	16.8	50	8.07	15.9	48	7.63
4LM	13.5	43	6.57	15.5	48	6.83	16.1	47	7.95
14LM	14.4	47	7.08	15.2	46	7.11	15.9	49	8.08
19LM	13.3	43	6.91	15.6	48	7.33	16.4	49	8.41
22LM	13.3	45	6.36	16.7	49	7.59	16.2	50	8.38
<u>Medium Dose</u>									
1MM	14.4	47	6.65	14.6	46	6.81	16.2	49	7.73
5MM	14.8	47	7.19	15.0	45	7.35	16.6	49	7.93
8MM	14.1	46	6.30	17.3	49	7.22	16.6	52	8.24
20MM	13.2	43	7.52	15.5	44	6.71	15.9	48	8.37
23MM	14.4	46	7.16	16.2	47	7.28	16.8	-	8.30
<u>High Dose</u>									
3HM	13.8	46	6.74	16.3	47	7.23	17.1	53	8.91
6HM	13.5	44	6.14	14.3	44	7.59	15.3	47	8.04
9HM	14.1	45	6.58	15.2	46	8.02	15.8	49	7.70
15HM	14.4	-	7.18	14.9	47	7.14	16.8	49	8.37
25HM	13.8	47	6.78	15.5	46	7.05	14.9	49	8.17
<u>Very High Dose</u>									
7VHM	12.9	42	6.50	14.3	46	7.31	16.2	48	7.91
11VHM	13.8	47	6.31	16.0	50	7.38	16.1	50	8.31
13VHM	13.9	45	6.35	15.6	48	7.28	17.1	50	8.73
16VHM	13.5	40	6.77	16.8	47	7.87	17.3	53	9.04
24VHM	13.5	44	6.95	15.3	43	7.16	14.7	45	8.04

Appendix Table 1 (cont.)

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Hematology: Red Cell Data

(Individual Values: Group B)

Treatment and Rat No.	Days of Treatment								
	-5			14			35		
	Hgb (g%)	Hct (%)	RBC x10 ⁶ /cmm	Hgb (g%)	Hct (%)	RBC x10 ⁶ /cmm	Hgb (g%)	Hct (%)	RBC x10 ⁶ /cmm
<u>Control</u>									
2CF	14.6	45	6.85	14.1	43	6.88	14.3	44	7.65
3CF	14.3	43	7.15	14.6	-	7.70	15.5	47	8.34
14CF	14.6	46	6.59	14.3	45	8.27	15.5	47	7.59
17CF	16.0	45	7.30	14.7	45	7.00	16.5	49	8.11
23CF	15.3	42	6.96	15.2	45	7.36	17.1	47	7.70
<u>Low Dose</u>									
4LF	14.7	44	6.76	15.2	44	7.26	15.6	44	7.48
9LF	15.6	47	7.59	15.6	48	7.00	16.2	48	7.72
12LF	13.7	42	6.34	14.1	42	6.78	15.2	44	7.39
13LF	15.9	46	7.16	15.0	44	6.95	17.1	48	7.67
21LF	15.5	45	7.10	16.3	43	6.80	17.4	48	8.02
<u>Medium Dose</u>									
5MF	15.6	48	7.58	15.4	46	7.20	16.4	49	8.65
6MF	13.8	43	6.55	14.6	44	7.03	14.0	43	7.31
10MF	15.2	47	6.45	14.6	45	7.48	15.6	47	7.95
11MF	13.7	42	6.35	14.7	45	7.20	15.9	45	7.36
16MF	15.8	47	7.70	16.0	50	7.46	17.3	48	8.82
<u>High Dose</u>									
15HF	14.3	42	6.67	15.6	44	7.28	15.9	48	7.33
18HF	15.9	47	7.27	15.4	48	7.72	16.6	49	8.17
20HF	14.4	45	6.59	15.7	48	7.92	18.1	47	8.03
22HF	14.9	45	6.52	14.9	48	7.60	17.5	49	8.13
25HF	16.4	45	7.14	15.4	47	7.38	15.2	44	6.83
<u>Very High Dose</u>									
1VHF	14.6	45	6.83	13.7	45	7.33	15.5	47	8.30
7VHF	14.6	45	6.91	14.4	44	7.49	15.9	47	7.64
8VHF	14.6	44	7.10	15.0	45	8.12	16.5	51	8.71
19VHF	14.3	42	6.73	13.4	43	7.73	15.9	50	8.79
24VHF	14.3	42	6.45	15.0	46	7.28	15.8	44	7.51

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Hematology: White Cell Data
(Individual Values: Group A)

Treatment and Rat No.	Days of Treatment													
	-5							14						
	Differential							Differential						
	WBC $\times 10^3/\text{cmm}$	PMN %	Lym %	Mon %	Eos %	WBC $\times 10^3/\text{cmm}$	PMN %	Lym %	Mon %	Eos %	WBC $\times 10^3/\text{cmm}$	PMN %	Lym %	Eos %
<u>Control</u>														
10CM	12.1	13	87	0	0	11.8	12	86	1	1	25.3	18	82	0
12CM	12.5	22	77	1	0	12.9	15	84	1	0	12.5	9	90	1
17CM	14.3	11	87	2	0	10.9	6	94	0	0	11.8	6	91	3
18CM	12.4	12	88	0	0	11.5	20	78	0	2	15.7	4	95	1
21CM	8.9	11	89	0	0	9.8	17	82	0	1	21.0	15	84	1
<u>Low Dose</u>														
2LM	14.3	5	94	1	0	27.9	9	88	0	3	27.2	14	84	2
4LM	9.8	30	69	1	0	10.7	14	85	0	1	28.4	4	95	1
14LM	14.4	10	88	1	1	10.4	28	69	0	3	33.3	7	91	2
19LM	9.6	7	91	0	2	12.5	31	69	0	0	16.9	15	85	0
22LM	12.1	9	91	0	0	15.6	9	91	0	0	17.9	13	87	0
<u>Medium Dose</u>														
1MM	11.7	33	62	5	0	34.7	12	86	1	1	37.5	7	93	0
5MM	11.3	9	89	2	0	18.3	2	98	0	0	9.9	4	96	0
8MM	9.1	14	84	2	0	15.2	1	98	0	1	21.9	3	96	1
20MM	10.3	8	89	2	1	13.6	23	74	0	3	17.5	9	91	0
23MM	8.1	8	92	0	0	16.1	7	92	0	1	23.4	3	97	0
<u>High Dose</u>														
3HM	12.5	14	81	1	4	14.2	10	87	0	3	17.5	9	91	0
6HM	11.2	12	84	1	3	18.0	10	90	0	0	21.0	11	89	0
9HM	12.5	9	86	2	3	10.7	9	88	0	3	10.5	7	93	0
15HM	8.6	15	85	0	0	9.8	12	86	2	0	12.5	11	87	2
25HM	15.4	2	98	0	0	13.3	14	86	0	0	14.9	9	90	1
<u>Very High Dose</u>														
7VHM	8.6	14	84	0	2	19.6	8	92	0	0	16.4	10	90	0
11VHM	14.3	13	86	0	1	11.1	5	94	0	1	10.7	11	89	0
13VHM	16.3	10	90	0	0	13.6	11	85	3	1	14.7	11	88	1
16VHM	12.5	6	92	2	0	6.4	10	88	0	2	12.0	5	95	0
24VHM	12.8	5	95	0	0	22.4	6	93	1	0	10.5	5	94	1

Hematology: White Cell Data
(Individual Values: Group B)

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Appendix Table 3

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Coagulation Measurements

(Individual Values: Group A)

Treatment and Rat No.	Days of Treatment			
	-5 Coagulation Time (sec)	35 Coagulation Time (sec)	-5 Prothrombin Time (sec)	35 Prothrombin Time (sec)
<u>Control</u>				
10CM	106	143	11.7	13.4
12CM	97	141	12.7	12.0
17CM	125	85	13.3	10.2
18CM	87	134	11.3	14.2
21CM	100	119	12.3	11.8
<u>Low Dose</u>				
2LM	130	124	11.5	11.1
4LM	128	126	11.3	10.6
14LM	110	122	11.0	-
19LM	122	140	12.3	12.1
22LM	97	139	11.1	13.4
<u>Medium Dose</u>				
1MM	124	108	15.0	-
5MM	136	104	12.4	11.4
8MM	154	144	12.3	11.6
20MM	131	92	11.7	11.2
23MM	150	120	12.5	12.6
<u>High Dose</u>				
3HM	112	139	11.7	12.2
6HM	140	140	13.0	13.8
9HM	127	136	13.1	12.2
15HM	135	133	12.5	-
25HM	105	103	11.9	14.0
<u>Very High Dose</u>				
7VHM	138	132	12.7	13.2
11VHM	139	129	14.3	14.0
13VHM	138	146	11.7	11.8
16VHM	130	120	12.1	13.2
24VHM	119	132	12.1	13.8

Appendix Table 3 (cont.)

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Coagulation Measurements

(Individual Values: Group B)

Treatment and Rat No.	Days of Treatment			
	-5 Coagulation Time (sec)	35 Coagulation Time (sec)	-5 Prothrombin Time (sec)	35 Prothrombin Time (sec)
<u>Control</u>				
2CF	134	129	11.9	13.1
3CF	145	147	12.9	14.2
14CF	115	167	10.9	14.0
17CF	94	162	12.1	14.0
23CF	130	157	12.0	13.0
<u>Low Dose</u>				
4LF	120	155	11.5	11.2
9LF	118	137	12.3	-
12LF	131	137	11.9	11.8
13LF	116	128	12.2	12.1
21LF	118	119	11.9	12.4
<u>Medium Dose</u>				
5MF	117	143	12.5	10.8
6MF	124	108	12.0	14.2
10MF	99	167	11.6	12.8
11MF	90	138	12.2	13.2
16MF	98	158	11.5	11.2
<u>High Dose</u>				
15HF	112	150	12.9	13.4
18HF	146	134	12.2	13.4
20HF	135	143	11.6	12.0
22HF	132	128	11.0	11.0
25HF	118	123	11.8	14.2
<u>Very High Dose</u>				
1VHF	158	126	13.1	-
7VHF	97	154	12.1	13.0
8VHF	118	150	12.3	14.6
19VHF	141	129	12.9	11.2
24VHF	116	136	11.5	12.8

Appendix Table 4

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Blood Plasma Biochemistry

(Individual Values: Group C)

Treatment and Rat No.	Days of Treatment									
	-5					14				
	BUN mg%	GPT I.U.	AP I.U.	Glucose mg%	Total Amino N	BUN mg%	GPT I.U.	AP I.U.	Glucose mg%	Total Amino N
<u>Control</u>										
4CM	10.8	13	289	112	8.60	12.1	105	209	104	7.76
9CM	13.4	11	183	141	8.30	18.5	22	154	102	8.79
16CM	16.7	10	309	188	8.94	18.2	24	249	99	8.03
18CM	12.2	17	174	125	7.74	15.6	19	186	141	7.53
22CM	13.6	11	269	142	8.71	13.1	13	227	131	7.38
<u>Low Dose</u>										
6LM	16.3	24	232	159	8.27	19.1	21	199	107	7.81
8LM	12.9	22	255	164	7.83	15.7	23	221	92	8.72
15LM	10.9	12	251	127	8.27	15.5	15	217	133	7.25
17LM	38.9	13	319	131	8.71	37.1	72	272	128	8.47
25LM	11.9	12	254	148	-	17.8	13	214	94	7.14
<u>Medium Dose</u>										
1MM	14.8	13	316	143	9.11	13.4	20	277	85	-
3MM	13.7	14	221	111	8.43	15.9	19	209	97	9.24
7MM	11.9	15	336	119	8.77	9.0	20	184	60	8.54
10MM	11.5	18	327	114	8.71	18.7	26	234	125	8.03
24MM	13.1	17	216	133	-	14.9	19	172	135	7.61
<u>High Dose</u>										
2HM	10.4	16	191	125	8.97	16.7	27	173	94	8.73
5HM	12.2	15	233	116	9.33	10.7	25	165	85	9.15
12HM	10.6	17	288	136	8.36	17.0	32	274	128	7.66
21HM	11.5	11	162	158	7.57	16.2	4	142	135	7.67
23HM	12.0	15	225	157	8.30	12.0	16	174	152	7.40
<u>Very High Dose</u>										
11VHM	13.4	23	306	156	7.21	18.4	27	253	115	8.23
13VHM	11.9	0	251	132	8.84	14.0	26	151	125	8.10
14VHM	11.3	34	190	139	8.19	15.7	17	125	134	7.77
19VHM	9.9	20	240	128	7.81	15.6	19	170	115	7.65
20VHM	11.8	7	202	129	8.14	16.9	16	211	131	8.18

Appendix Table 4 (cont.)

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Blood Plasma Biochemistry

(Individual Values: Group D)

Treatment and Rat No.	Days of Treatment									
	-5					14				
	BUN mg%	GPT I.U.	AP I.U.	Glucose mg%	Total Amino N	BUN mg%	GPT I.U.	AP I.U.	Glucose mg%	Total Amino N
<u>Control</u>										
9CF	13.3	0	271	131	8.66	14.7	16	247	176	-
12CF	14.7	5	224	153	8.00	14.6	18	206	152	6.89
18CF	12.9	0	147	120	8.76	15.2	18	129	142	8.51
21CF	11.8	2	212	127	8.90	14.9	20	182	132	6.92
24CF	12.1	11	164	142	8.42	13.7	23	141	164	7.18
<u>Low Dose</u>										
4LF	16.8	12	121	127	8.08	17.4	22	97	141	7.60
13LF	14.4	14	180	125	8.12	14.9	20	127	126	-
17LF	14.7	14	138	142	8.15	13.4	15	132	133	8.32
22LF	14.8	10	135	120	8.19	14.1	13	107	129	7.66
23LF	14.8	12	87	131	7.90	16.2	21	81	152	7.56
<u>Medium Dose</u>										
6MF	15.6	5	180	132	9.45	17.4	19	172	127	7.57
8MF	15.9	13	211	119	8.64	14.9	29	169	139	7.12
16MF	18.1	3	119	111	8.66	14.3	11	90	118	7.77
19MF	14.7	19	152	121	7.73	14.7	24	140	129	7.16
25MF	13.8	0	230	163	8.11	18.1	16	87	142	9.01
<u>High Dose</u>										
1HF	10.2	2	141	144	8.67	16.6	21	138	170	-
2HF	13.9	4	147	140	8.71	21.0	21	127	131	7.28
3HF	15.1	16	277	123	-	18.1	19	209	125	7.22
7HF	18.7	3	171	141	8.83	18.5	20	110	120	8.54
15HF	19.4	15	121	162	-	15.0	13	113	138	8.34
<u>Very High Dose</u>										
5VHF	17.3	13	171	146	8.52	18.1	17	157	133	6.50
10VHF	11.3	0	154	133	8.43	17.2	23	141	121	7.18
11VHF	13.3	13	161	123	9.50	17.3	17	122	132	8.34
14VHF	13.5	10	152	119	9.17	16.5	12	147	130	8.14
20VHF	12.1	8	191	125	-	13.0	26	196	131	7.34

Appendix Table 5

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Blood Plasma Biochemistry

(Individual Values: Group C)

Treatment and Rat No.	Days of Treatment 35						
	BUN mg%	GPT I.U.	AP I.U.	Bili- rubin mg%	Glucose mg%	OCT I.U.	Total Amino N mg%
<u>Control</u>							
4CM	18.5	30	167	.14	189	.34	6.44
9CM	16.5	20	84	.16	168	.14	5.69
16CM	21.4	29	190	.18	188	.22	6.38
18CM	18.8	28	117	.17	191	.05	6.45
22CM	14.9	30	132	.17	197	.47	6.58
<u>Low Dose</u>							
6LM	13.1	15	73	.15	173	0	5.89
8LM	15.1	22	149	.16	220	.02	6.71
15LM	16.0	18	147	.15	198	.04	6.01
17LM	-	35	133	.15	148	1.15	6.08
25LM	17.7	21	157	.15	186	.04	6.92
<u>Medium Dose</u>							
1MM	20.8	37	214	.14	215	.60	6.98
3MM	14.7	19	112	.13	176	.14	6.58
7MM	18.5	26	215	.15	178	.01	7.00
10MM	16.1	34	211	.14	181	.38	6.33
24MM	20.3	19	175	.16	178	.12	6.50
<u>High Dose</u>							
2HM	17.0	19	111	.13	178	.05	7.37
5HM	18.8	50	128	.14	160	.76	6.83
12HM	16.7	20	205	.14	179	.01	9.11
21HM	13.9	28	114	.16	198	.37	6.27
23HM	15.6	33	129	.17	196	.09	7.15
<u>Very High Dose</u>							
11VHM	19.5	25	187	.15	182	.08	5.73
13VHM	17.4	20	72	.16	165	.10	6.80
14VHM	20.6	27	84	.15	224	.23	5.66
19VHM	18.2	22	120	.16	180	.003	5.45
20VHM	17.0	23	132	.17	190	.17	6.43

Appendix Table 5 (cont.)

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Blood Plasma Biochemistry
(Individual Values: Group D)

Treatment and Rat No.	Days of Treatment 35						Total Amino N mg%
	BUN mg%	GPT I.U.	AP I.U.	Bili- rubin mg%	Glucose mg%	OCT I.U.	
<u>Control</u>							
9CF	18.4	46	183	.19	194	.05	6.86
12CF	15.7	26	177	.17	215	.21	6.08
18CF	16.7	28	101	.18	189	.05	6.51
21CF	14.9	28	106	.18	164	.09	6.75
24CF	12.0	28	77	.17	200	.05	6.31
<u>Low Dose</u>							
4LF	19.6	20	62	.13	186	.03	5.65
13LF	22.8	19	102	.16	142	.11	7.04
17LF	19.3	24	91	.17	174	.04	7.34
22LF	18.3	23	80	.18	198	.15	6.87
23LF	16.0	22	58	.21	177	.36	6.87
<u>Medium Dose</u>							
6MF	21.7	21	139	.13	204	.09	6.93
8MF	21.5	19	96	.18	176	1.13	6.64
16MF	22.6	29	66	.19	211	.39	5.38
19MF	12.3	20	90	.17	178	.16	6.50
25MF	11.0	21	72	.18	151	.04	5.62
<u>High Dose</u>							
1HF	20.8	22	122	.15	203	.09	5.89
2HF	20.5	18	88	.15	210	.04	6.16
3HF	21.8	29	166	.15	176	.18	6.30
7HF	16.9	36	151	.17	198	.11	6.56
15HF	17.2	34	80	.21	167	.31	6.19
<u>Very High Dose</u>							
5VHF	23.0	18	123	.14	162	.05	7.03
10VHF	21.1	23	116	.19	175	.12	5.90
11VHF	16.9	25	83	.16	191	.50	6.64
14VHF	18.7	18	104	.18	155	.12	7.32
20VHF	16.1	37	132	.19	156	.31	6.77

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Final Body and Fresh Organ Weights at Autopsy

(Individual Values: Group A)

Treatment and Rat No.	Final Body Weight (g)	Heart (g)	Liver (g)	Kidneys (g)	Adrenals (mg)	Thyroids (mg)	Pituitary (mg)	Testes (g)	Seminal Vesicle (mg)	Prostate (mg)
<u>Control</u>										
10CM	316	1.102	9.770	2.198	48.4	16.7	10.6	3.002	215.8	386.6
12CM	450	1.132	14.380	2.687	65.3	23.6	14.2	3.483	198.2	477.4
17CM	390	1.055	12.120	2.145	45.6	13.2	12.2	3.016	229.4	500.4
18CM	374	1.168	12.120	2.524	80.2	15.2	12.4	2.793	217.2	571.2
21CM	322	.932	10.010	2.391	46.3	18.4	11.2	3.352	282.7	637.4
<u>Low Dose</u>										
2LM	382	1.086	12.790	2.605	68.4	19.2	11.2	3.052	241.2	404.5
4LM	350	1.123	9.570	2.714	63.5	24.1	12.0	3.028	202.2	414.6
14LM	450	1.365	15.160	2.861	72.4	22.0	13.7	3.212	236.8	537.5
19LM	390	1.082	12.220	2.748	62.1	24.3	11.2	1.442	218.2	518.3
22LM	324	.957	9.260	2.122	44.0	14.0	7.4	3.526	183.2	341.4
<u>Medium Dose</u>										
1NM	364	1.178	12.490	2.604	42.7	12.4	13.5	3.302	183.6	485.2
5NM	324	.857	9.205	1.866	40.0	17.2	11.7	3.470	198.2	520.6
8NM	394	1.208	12.060	2.781	47.5	17.9	12.5	3.433	215.8	450.0
20NM	406	1.054	13.420	2.724	47.3	18.6	12.4	3.425	221.4	563.1
23NM	366	.892	11.120	2.352	44.1	26.0	12.2	3.154	236.1	508.1
<u>High Dose</u>										
3HM	394	1.127	14.010	2.744	60.2	20.6	18.2	3.092	249.4	485.8
6HM	346	1.061	11.450	2.491	46.8	13.4	10.2	3.227	190.5	428.5
9HM	370	.924	11.080	2.283	50.4	20.6	10.0	3.290	154.0	531.2
15HM	384	1.066	10.970	2.384	54.3	21.7	13.4	3.210	278.1	568.5
22HM	402	1.073	12.060	2.882	43.2	20.4	11.4	3.316	290.5	586.5
<u>Very High Dose</u>										
7VHM	336	.924	10.340	2.087	51.2	18.3	11.0	3.661	115.6	387.8
11VHM	384	1.074	13.160	2.815	55.7	24.5	19.2	3.436	144.8	316.2
13VHM	320	.817	10.520	2.132	49.2	16.0	10.0	2.904	219.2	427.5
16VHM	326	.982	9.750	2.282	58.2	16.7	10.0	3.603	198.2	543.2
24VHM	366	1.089	11.620	2.564	57.2	16.5	11.2	3.205	157.8	422.4

Appendix Table 6 (cont.)

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Final Body and Fresh Organ Weights at Autopsy
(Individual Values: Group B)

Treatment and Rat No.	Final Body Weight (g)	Heart (g)	Liver (g)	Kidneys (g)	Adrenals (mg)	Thyroids (mg)	Pituitary (mg)	Ovaries (mg)	Uterus (mg)
<u>Control</u>									
2CF	226	.683	7.46	1.502	61.2	15.6	12.8	98.6	484.5
3CF	204	.726	7.40	1.550	60.8	12.4	11.3	77.0	761.4
14CF	270	.921	8.64	1.646	71.0	20.0	17.8	88.4	502.8
17CF	268	.752	8.73	1.723	65.2	15.6	13.4	77.3	964.4
23CF	260	.787	7.57	1.702	70.0	15.2	14.4	95.8	492.6
<u>Low Dose</u>									
4LF	234	.794	7.90	1.607	60.0	18.2	10.0	85.2	448.3
9LF	246	1.880	7.58	1.854	53.9	14.4	10.6	59.8	621.3
12LF	276	.928	9.97	2.085	95.3	21.2	20.0	124.3	750.0
13LF	244	.705	7.87	1.783	63.0	13.8	12.8	65.2	632.6
21LF	228	.925	7.31	1.442	80.0	19.3	11.2	88.2	590.4
<u>Medium Dose</u>									
5MF	210	.696	6.51	1.383	63.7	16.8	11.4	76.8	545.3
6MF	238	.734	7.95	1.632	64.2	16.7	12.8	73.8	325.5
10MF	244	.856	7.91	1.586	64.2	15.2	11.8	76.2	740.0
11MF	246	.687	7.89	1.726	50.8	13.8	10.6	66.3	444.2
16MF	204	.593	6.37	1.153	72.4	16.7	10.0	69.3	360.4
<u>High Dose</u>									
15HF	224	.795	7.63	1.515	70.2	13.4	14.5	80.3	502.6
18HF	250	.721	7.57	1.820	53.5	18.3	13.4	83.3	736.2
20HF	246	.817	8.80	1.887	70.5	20.0	17.3	87.2	668.5
22HF	238	.672	7.29	1.625	71.8	14.3	15.2	73.6	430.2
25HF	216	.592	6.89	1.553	53.8	16.2	11.4	67.7	608.4
<u>Very High Dose</u>									
1VHF	220	.646	7.26	1.467	52.0	17.3	11.6	76.5	331.2
7VHF	210	.692	7.10	1.363	57.3	14.8	9.6	74.2	377.2
8VHF	224	.686	8.34	1.442	50.0	15.6	11.8	58.1	274.4
19VHF	218	.778	7.64	1.733	58.2	13.6	12.4	67.3	438.4
24VHF	260	.873	8.00	2.334	61.3	11.3	9.0	83.2	423.4

Appendix Table 6 (cont.)

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Final Body and Fresh Organ Weights at Autopsy
(Individual Values: Group C)

Treatment and Rat No.	Final Body Weight (g)	Heart (g)	Liver (g)	Kidneys (g)	Adrenals (mg)	Thyroids (mg)	Pituitary (mg)	Testes (g)	Seminal Vesicle (mg)	Prostate (mg)
<u>Control</u>										
4CM	418	1.257	13.64	2.565	52.0	20.0	15.6	3.132	208.4	581.0
9CM	364	1.282	9.63	2.476	54.5	21.7	13.2	3.846	251.0	630.0
16CM	396	1.132	12.73	2.463	80.0	25.2	12.4	3.672	247.6	440.0
18CM	336	1.102	10.07	2.303	41.2	20.4	10.4	3.443	304.7	443.2
22CM	400	1.217	13.58	2.471	58.4	26.8	11.2	3.117	240.0	631.8
<u>Low Dose</u>										
6LM	318	1.224	8.21	2.178	50.8	20.0	12.4	3.013	170.0	390.0
8LM	400	1.301	14.27	2.831	54.2	18.7	14.6	3.200	263.4	693.5
15LM	394	1.203	13.15	2.563	67.2	25.8	12.0	3.185	294.8	790.2
17LM	314	.985	8.63	2.052	53.5	20.0	10.0	2.576	225.3	388.2
25LM	446	1.408	14.60	2.904	71.3	14.2	11.6	3.842	188.3	517.3
<u>Medium Dose</u>										
1MM	432	1.352	14.95	2.639	55.3	16.2	15.2	3.436	220.0	632.1
3MM	396	1.342	11.84	2.796	49.2	15.8	14.2	3.012	242.8	624.1
7MM	426	1.225	14.54	3.021	54.7	15.8	13.5	3.613	231.6	506.7
10MM	376	1.287	12.36	2.540	48.2	15.2	10.5	3.052	197.2	535.5
24MM	370	1.276	11.97	3.012	57.2	22.4	10.5	3.200	150.0	470.2
<u>High Dose</u>										
2HM	384	1.163	12.89	2.673	50.0	19.4	12.1	3.624	182.4	768.3
5HM	422	1.370	15.04	2.821	52.0	23.8	14.0	3.198	277.4	392.6
12HM	344	1.012	9.67	2.304	40.8	17.6	19.6	3.101	140.3	408.8
21HM	378	1.137	11.37	2.623	44.5	18.6	10.4	3.199	242.1	500.4
23HM	396	1.110	13.02	2.945	56.7	25.8	11.4	3.092	222.1	506.1
<u>Very High Dose</u>										
11VHM	340	.980	10.82	2.364	52.3	19.2	10.0	3.587	217.2	276.6
13VHM	380	1.132	9.73	2.645	72.0	20.8	14.2	2.596	147.8	408.2
14VHM	360	1.232	12.80	2.813	43.2	21.0	11.0	3.166	233.4	371.2
19VHM	274	.800	8.09	1.885	45.2	7.5	6.4	2.876	94.2	286.3
20VHM	376	1.093	10.90	2.377	58.4	19.3	7.8	3.331	142.1	406.5

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Final Body and Fresh Organ Weights at Autopsy
(Individual Values: Group D)

Treatment and Rat No.	Final Body Weight (g)	Heart (g)	Liver (g)	Kidneys (g)	Adrenals (mg)	Thyroids (mg)	Pituitary (mg)	Ovaries (mg)	Uterus (mg)
<u>Control</u>									
9CF	288	1.162	9.22	1.927	70.0	13.8	13.9	80.4	491.4
12CF	224	.716	7.48	1.533	51.2	17.2	14.0	70.0	382.4
18CF	260	.942	9.18	1.652	68.7	15.2	12.8	88.2	485.0
21CF	256	.862	7.95	1.652	80.0	17.5	15.2	81.0	469.2
24CF	242	.796	7.88	1.793	90.8	15.8	12.7	97.8	563.2
<u>Low Dose</u>									
4LF	244	.847	7.81	1.828	71.0	15.3	13.2	74.2	454.2
13LF	230	.892	8.38	1.460	65.8	19.4	13.4	76.0	367.4
17LF	238	.834	9.26	1.881	57.6	18.1	10.2	62.8	394.8
22LF	236	.842	7.47	1.802	61.8	15.5	10.0	52.9	430.1
23LF	206	.698	6.67	1.442	68.7	16.2	10.2	74.8	653.4
<u>Medium Dose</u>									
6MF	260	.847	9.18	1.765	59.5	17.4	11.4	91.2	380.7
8MF	248	.863	10.09	1.850	70.0	22.4	13.4	97.2	369.8
16MF	246	.842	7.66	1.588	62.4	15.2	10.8	71.6	321.4
19MF	222	.762	7.22	1.588	87.6	12.6	10.7	110.8	473.2
25MF	222	.755	7.51	1.656	75.2	13.6	13.7	92.4	521.3
<u>High Dose</u>									
1HF	234	.966	8.71	1.689	79.3	13.9	11.4	78.2	592.6
2HF	240	.885	8.08	1.534	53.2	16.7	23.8	86.9	476.8
3HF	224	.719	7.42	1.482	50.9	14.0	11.8	67.2	360.0
7HF	262	.825	8.63	1.663	61.2	16.3	11.6	65.7	853.2
15HF	248	.945	8.37	1.596	63.7	17.4	13.6	81.2	407.2
<u>Very High Dose</u>									
5VHF	202	.683	6.76	1.354	44.6	13.1	8.3	60.0	253.5
10VHF	216	.712	7.08	1.494	53.9	16.2	12.4	60.2	530.4
11VHF	238	.763	7.73	1.607	66.2	14.8	12.4	77.4	415.6
14VHF	240	1.002	8.76	1.810	55.2	17.5	11.8	73.2	619.4
20VHF	234	.735	7.53	1.715	95.4	15.2	12.6	83.6	468.2

Appendix Table 7

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Urinalysis

(Individual Values: Group A)

Treatment and Rat No.	RBC/HPF			WBC/HPF			Casts/LPF			Bacteria			Crystals		
	0	2	5	0	2	5	0	2	5	0	2	5	0	2	5
<u>Control</u>															
10CM	0-1	0	2-3	0	0	0-5	0	0	0	0-1	2	0-1	2	0-1	0-1
12CM	0	0	0	0-1	0	0	0	0	0	1	3	2	2	0-1	0-1
17CM	0	0	0	0-2	0	0-2	0	0	0	1	3-4	1	1	2	0-1
18CM	0	0	0	0	0-1	0	0	0	0	0	3-4	0-1	1	2	0-1
21CM	0	0	0	2-4	0	0	0	0	0	2	2-3	1	3	2	0-1
<u>Low Dose</u>															
2LM	0	0	0	0	0	0	0	0	0	1	2	1	1	0-1	1
4LM	0	0	0	0-2	0	0	0	0	0	0	3	0-1	1	0-1	0-1
14LM	0	0	0	0	0	5-10	0	0	0	0	2	2	1-2	0-1	1
19LM	0	0	0	0	0	0	0	0	0	0	2-3	1	1	1	0-1
22LM	0	1-3	0	0	0	0	0	0	0	1	1	0-1	1	1	1
<u>Medium Dose</u>															
1MM	0	0	0	0-1	2-3	0-2	0	0	0	2	1	2	2-3	0-1	1
5MM	0	0	0	0	0	0	0	0	0	0-1	2	1	0-1	1	0-1
8MM	0	0	0	0	0	0	0	0	0	2	2	1	1-2	0-1	1
20MM	1-3	0	0	0	0-1	0	0	0	0	1	1	2	0-1	0-1	1
23MM	0	0	0	2-4	0	0	0	0	0	0-1	2-3	0-1	2	0	0-1
<u>High Dose</u>															
3HM	0-1	0	0	0	0	0-3	0	0	0	0-1	1	2	1-2	1	0-1
6HM	0	0	0	1-3	0	0	0	0	0	3	2	0-1	1-2	0-1	0-1
9HM	0	0	0	0-1	0	0	0	0	0	1	2	0-1	0-1	1	1
15HM	0	0	5-6	0	0	2-3	0	0	0	1-2	1	2	2-3	1	0-1
25HM	0	0	0	0-1	0	0	0	0	0	0	2	0-1	0-1	0-1	0-1
<u>Very High Dose</u>															
7VHM	0	0	0	0	0	0	0	0	0	2	3	1	2	1	0-1
11VHM	0	0	0	0	2-4	0	0	0	0	0	2	1	0-1	1	0-1
13VHM	0	0	1-2	0	0	0-2	0	0	0	0	1	3	1	1	1
16VHM	0	0	0-2	0	0	0	0	0	0	0-1	2	2	1	0-1	1
24VHM	1-3	1-3	0	0-1	0-1	0	0	0	0	1	2	1	1	1	1

Appendix Table 7 (cont.)

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

URINALYSIS

(Individual Values: Group A)

Treatment and Rat No.	pH			Sp. Gravity			Protein		
	0	2	5	Weeks of Treatment			0	2	5
				0	2	5			
<u>Control</u>									
10CM	8.0	8.5	9.0	1.029	1.038	1.048	0	0	0
12CM	8.0	8.5	9.0	1.027	1.034	1.032	0	1	0
17CM	8.0	9.0	9.0	1.058	1.035	1.020	0	0	0
18CM	8.0	9.0	7.5	1.024	1.028	1.034	0	2	0
21CM	8.5	9.0	9.0	1.031	1.035	1.042	0	1	0
<u>Low Dose</u>									
2LM	8.0	9.0	9.0	1.042	1.042	1.038	0	0	0
4LM	8.0	8.0	8.0	1.047	1.038	1.038	0	0	0
14LM	8.0	9.0	7.5	1.054	1.048	1.035	0	0	0
19LM	9.0	8.0	8.0	1.041	1.034	1.038	0	0	0
22LM	8.0	8.0	7.0	1.020	1.028	1.028	0	0	0
<u>Medium Dose</u>									
1MM	8.5	9.0	8.5	1.040	1.035	1.042	0	0	0
5MM	8.0	9.0	7.5	1.065	1.040	1.035	1	1	0
8MM	8.0	8.5	9.0	1.030	1.038	1.035	0	0	0
20MM	7.5	8.0	7.5	1.062	1.035	1.036	1	0	0
23MM	8.5	8.0	7.5	1.071	1.030	1.040	0	0	0
<u>High Dose</u>									
3HM	8.0	8.5	8.0	1.043	1.044	1.040	0	0-1	0
6HM	8.0	9.0	7.5	1.036	1.042	1.038	0	0	0
9HM	8.5	9.0	8.5	1.063	1.042	1.038	1	0	1
15HM	8.5	8.5	7.0	1.062	1.050	1.050	0	0	0
25HM	8.0	9.0	7.0	1.032	1.025	1.035	0	0	0
<u>Very High Dose</u>									
7VHM	8.5	8.5	7.0	1.040	1.044	1.044	0	1	0
11VHM	7.5	8.0	8.5	1.027	1.035	1.035	0	0	0
13VHM	7.5	9.0	8.5	1.037	1.050	1.040	0	0	0
16VHM	8.0	8.0	8.5	1.040	1.035	1.046	0	0	0
24VHM	8.0	6.0	6.5	1.036	1.035	1.048	2	0	0

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

(Individual values: Group A)

[illegible]

Appendix Table 7 (cont.)

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Urinalysis

(Individual Values: Group B)

Treatment and Rat No.	RBC/HPF			WBC/HPF			Casts/LPF			Bacteria			Crystals		
	0	2	5	0	2	5	0	2	5	0	2	5	0	2	5
<u>Control</u>															
2CF	0	0	0	0-1	0	0	0	0	0	2	2	1	3	2-3	1
3CF	0	0	0	0	0	0	0	0	0	2	2	2	3-4	3	1
14CF	0	0	0	0	0	0	0	0	0	1	1	2	2	0-1	3
17CF	0	0	0	0	0	0	0	0	0	1	3	1	1	3	1
23CF	0	0	0	0	0	2-3	0	0	0	0-1	3	2	0-1	2-3	1
<u>Low Dose</u>															
4LF	0	0	0	0-1	0	0	0	0	0	1	2	1	1	2-3	2
9LF	0-1	0	-	0	2-3	2-3	0	0	0	2	3	2	1-2	1	0-1
12LF	0	0	0	0-2	0	0	0	0	0	3	2	0-1	0-1	1-2	1
13LF	0	0	0	0	0	0	0	0	0	1	2	3	1	0-1	2
21LF	0	0	0	0-4	0	0	0	0	0	2	3	1	0-1	2	2
<u>Medium Dose</u>															
5MF	0	0-1	0	1-3	0-5	0	0	0	0	2-3	2	1	2	1	1
6MF	0	0	0	0-1	0	0	0	0	0	2-3	1	2	2-3	1	3
10MF	0	0	0	4-6	0	0	0	0	0	1	2	0-1	1	2	0-1
11MF	0	0	0	0	0	0	0	0	0	1	0-1	1	1	1	1
16MF	0	0	0	0-1	0	0	0	0	0	2-3	2	2	2	2-3	1
<u>High Dose</u>															
15HF	0-1	0	0	0	0	0	0	0	0	2-3	2	3	3	2	2
18HF	0	0	0	0-2	0	0	0	0	0	1	1-2	1	0-1	2	0-1
20HF	0	0	0	0	0	0	0	0	0	1	2	1	2	2	1
22HF	0	0	0	0	0	0	0	0	0	1	3	1	2	2	1
25HF	0-1	5-10	0	0	0	0	0	0	0	2	2	1	1	1	1
<u>Very High Dose</u>															
1VHF	0	0	0	0-1	0	0	0	0	0	3-4	1	2	0	2	2
7VHF	0	0	2-5	0	0	0	0	0	0-1	2	3	1	2	2	1
8VHF	0	0	0	0-1	0	0	0	0	0	1	1	1	1	1	0-1
19VHF	0	0	0	0	0-1	0	0	0	0	0-1	3	2	2	1	1
24VHF	0-1	2-4	0	0-2	0	0	0	0	0	3	2-3	0-1	1	0-1	0-1

Appendix Table 7 (cont.)

SC-19192: FIVE WEEK ORAL TOXICITY STUDY IN THE RAT

Urinalysis

(Individual Values: Group B)

Treatment and Rat No.	pH			Specific Gravity		
	Weeks of Treatment					
	0	2	5	0	2	5
<u>Control</u>						
2CF	8.5	7.0	9.0	1.041	1.030	1.035
3CF	8.0	6.5	8.5	1.043	1.029	1.042
14CF	8.0	8.5	6.5	1.029	1.022	1.025
17CF	8.0	7.5	9.0	1.040	1.029	1.030
23CF	8.0	8.0	9.0	1.032	1.034	1.046
<u>Low Dose</u>						
4LF	8.0	8.5	8.0	1.050	1.030	1.033
9LF	8.0	9.0	9.0	1.024	1.030	1.025
12LF	8.5	8.5	8.5	1.019	1.032	1.032
13LF	8.0	9.0	9.0	1.020	1.024	1.027
21LF	7.5	9.0	9.0	1.022	1.030	1.038
<u>Medium Dose</u>						
5MF	8.0	7.5	6.5	1.025	1.032	1.035
6MF	8.5	8.5	9.0	1.022	1.018	1.042
10MF	8.5	8.5	8.5	1.042	1.035	1.035
11MF	8.0	9.0	9.0	1.040	1.026	1.040
16MF	8.5	9.0	9.0	1.032	1.030	1.032
<u>High Dose</u>						
15HF	8.0	9.0	8.5	1.037	1.032	1.044
18HF	8.0	9.0	8.5	1.035	1.035	1.042
20HF	8.0	8.0	6.5	1.038	1.026	1.035
22HF	9.0	8.5	8.5	1.041	1.024	1.048
25HF	8.0	8.5	8.5	1.018	1.034	1.044
<u>Very High Dose</u>						
1VHF	8.5	7.0	8.5	1.028	1.035	1.040
7VHF	8.0	8.0	9.0	1.031	1.020	1.038
8VHF	8.0	7.5	8.5	1.052	1.025	1.044
19VHF	7.5	8.5	7.5	1.036	1.032	1.040
24VHF	8.5	7.5	9.0	1.027	1.025	1.032

MICROSCOPY for BIOLOGICAL RESEARCH, Ltd.

COMPUTER PARK EAST, ALBANY, NEW YORK 12205

PROJECT P-T NO. 972S71

SC-19192

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DATE SUBMITTED: JANUARY 14, 1972



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PROJECT P-T NO. 972S71

SC-19192

INTRODUCTION

ON DECEMBER 2, 1971, PREPARED SLIDES FROM 86 RATS WERE RECEIVED
FOR HISTOPATHOLOGICAL EVALUATION.

THE RATS WERE NUMBERED AND DISTRIBUTED AMONG GROUPS AS FOLLOWS:

<u>GROUP</u>	<u>PATHOLOGY NOS.</u>	<u>ANIMAL NOS.</u>
CONTROL	90082 - 90086 90087 - 90091	A10CM*, A12CM*, A17CM*, A18CM*, A21CM* C4CM, C9CM, C16CM, C18CM, C22CM
	90092 - 90096 90097 - 90101	B2CF*, B3CF*, B14CF*, B17CF*, B23CF* D9CF, D12CF, D18CF, D21CF, D24CF
VERY HIGH	90102 - 90106 90107 - 90111	A7VHM*, A11VHM*, A13VHM*, A16VHM*, A24VHM* C11VHM, C13VHM, C14VHM, C19VHM, C20VHM
	90112 - 90116 90117 - 90121	B1VHF*, B7VHF*, B8VHF*, B19VHF*, B24VHF* D5VHF, D10VHF, D11VHF, D14VHF, D20VHF
HIGH	90122 - 90126 90127 - 90131	A3HM, A6HM, A9HM, A15HM, A25HM C2HM, C5HM, C12HM, C21HM, C23HM
	90132 - 90136 90137 - 90141	B15HF, B18HF, B20HF, B22HF, B25HF D1HF, D2HF, D3HF, D7HF, D13HF
MEDIUM	90142 - 90146	A1MM, A5MM, A8MM, A20MM, A23MM
	90152 - 90156 90161	B5MF, B6MF, B10MF, B11MF, B16MF D25MF
LOW	90162 - 90166 90167 - 90170	A2LM, A4LM, A14LM, A19LM, A22LM C6LM, C8LM, C15LM, C17LM
	90172 - 90176 90181	B4LF, B9LF, B12LF, B13LF, B21LF D23LF

THE TISSUES SUBMITTED FOR EVALUATION INCLUDED: LUNG, BRONCHUS, HEART, ARTERY, KIDNEY, BILE DUCT, LIVER, SPLEEN, BRAIN, MENINGES, STOMACH, COLON, INTESTINE, PANCREAS, ISLET, ADRENAL CORTEX, ADRENAL MEDULLA, PITUITARY, THYROID, PARATHYROID, LYMPH NODE, SALIVARY GLAND, THYMUS, TESTIS, SEMINAL VESICLE, PROSTATE, BLADDER, OVARY, UTERUS, OVIDUCT, BONE, BONE MARROW, MUSCLE, SKIN AND SUBCUTIS, MAMMARY GLAND, EYE, VAGINA, NERVE. ALL TISSUES WERE STAINED WITH HEMATOXYLIN AND EOSIN WITH THE EXCEPTION OF BRAIN, MENINGES, NERVE AND OCCASIONALLY ARTERY. THESE LATTER WERE STAINED WITH LUXOL FAST BLUE-PERIODIC ACID SCHIFF-HEMATOXYLIN.

OIL RED O STAINS WERE EVALUATED ON CERTAIN OF THESE ANIMALS INDICATED BY AN ASTERISK. THE TISSUES SUBMITTED FOR OIL RED O EVALUATION INCLUDED: HEART, KIDNEY, LIVER, AND ADRENAL.

MAY-GRUNWALD GIEMSA STAINED BONE AND BONE MARROW SMEARS WERE RECEIVED AND REVIEWED ON ALL ANIMALS IN THE CONTROL, VERY HIGH, AND HIGH GROUPS.

ALL TISSUE SECTIONS WERE THEN SUBJECTED TO MICROSCOPIC REVIEW.

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PROJECT P-T NO. 972571

SC-19192

SUMMARY

TISSUES FROM 86 RATS WERE PROCESSED AND EXAMINED HISTOLOGICALLY. MULTIPLE PATHOLOGIC CONDITIONS WERE FOUND. MOST FINDINGS ARE CONSIDERED TO BE INCIDENTAL AND UNRELATED TO DRUG INGESTION.

OF POSSIBLE SIGNIFICANCE IS THE INCIDENCE OF PARASITES IN THE COLON. IN THE CONTROL GROUP 6 OF 20 RATS WERE AFFECTED, IN THE VERY HIGH GROUP THERE WERE 0 OF 20. THE HIGH GROUP CONTAINED 1 OF 20. A FEW RATS IN THE MEDIUM AND LOW GROUPS WERE AFFECTED AND THESE ARE NOT STATISTICALLY SIGNIFICANT.

MILD CHRONIC MURINE BRONCHITIS WAS FOUND IN MOST ANIMALS AND IS CONSIDERED TO BE DUE TO INTERCURRENT COLONY INFECTION. FOCAL MILD CHRONIC INFLAMMATION OF THE LIVER AND BILE DUCTS WAS ALSO A FREQUENT FINDING AND BELIEVED TO BE DUE TO INTERCURRENT COLONY INFECTION.

THE FINDING OF CRYSTALLINE DEPOSITS IS BELIEVED TO BE ARTIFACT AND NOT SIGNIFICANT.

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POSITIVE OIL RED O STAIN

<u>GROUP</u>	<u>POSITIVE/GROUP TOTAL</u>	<u>PATHOLOGY NOS.</u>	<u>ANIMAL NOS.</u>	<u>ADRENAL</u>
CONTROL	9/9	90082	A10CM	1+
		90083	A12CM	1+
		90084	A17CM	1+
		90085	A18CM	TRACE
		90086	A21CM	1+
		90092	B2CF	1+
		90093	B3CF	1+
		90094	B14CF	1+
		90096	B23CF	1+

<u>GROUP</u>	<u>POSITIVE/GROUP TOTAL</u>	<u>PATHOLOGY NOS.</u>	<u>ANIMAL NOS.</u>	<u>ADRENAL</u>
VERY HIGH	10/10	90102	A7VHM	2+
		90103	A11VHM	1+
		90104	A13VHM	1+
		90105	A16VHM	1+
		90106	A24VHM	TRACE
		90112	B1VHF	1+
		90113	B7VHF	1+
		90114	B8VHF	2+
		90115	B19VHF	1+
		90116	B24VHF	2+

ALL OTHER OIL RED O STAINED TISSUES WERE NEGATIVE.

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SC-19192

BONE MARROW SMEARS

MAY-GRUNWALD GIEMSA STAINED BONE AND BONE MARROW SMEARS WERE
EXAMINED FROM ALL ANIMALS IN THE CONTROL, VERY HIGH, AND HIGH GROUPS.

ON REVIEW, THE BONE MARROW CELLULARITY AND CELL DISTRIBUTION
APPEARED WITHIN NORMAL RANGE IN ALL ANIMALS.

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SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE BB 1
NON-NEOPLASTIC TOTALS

	TOTAL	CONTROL	V. HIGH	HIGH	MEDIUM
LUNG					
GRANULOMATOUS INFLAMMATION	1/ 79	0/ 20	1/ 19	0/ 20	0/ 10
LUNG					
ABSCCESS	2/ 79	0/ 20	0/ 19	1/ 20	0/ 10
LUNG					
EDEMA, PULMONARY	1/ 79	0/ 20	1/ 19	0/ 20	0/ 10
LUNG					
CHRONIC MURINE BRONCHITIS	76/ 79	18/ 20	19/ 19	20/ 20	9/ 10
HEART					
FIBROSIS	4/ 80	0/ 20	2/ 20	1/ 20	0/ 10
HEART					
CHRONIC INFLAMMATION	18/ 80	6/ 20	3/ 20	5/ 20	1/ 10
KIDNEY					
HYDRONEPHROSIS	4/ 81	0/ 20	2/ 20	0/ 20	0/ 10
KIDNEY					
CALCIFICATION	13/ 81	4/ 20	4/ 20	1/ 20	2/ 10
KIDNEY					
NECROSIS	1/ 81	0/ 20	1/ 20	0/ 20	0/ 10
KIDNEY					
GLOMERULOSCLEROSIS	2/ 81	0/ 20	0/ 20	0/ 20	0/ 10
KIDNEY					
CHRONIC INFLAMMATION	31/ 81	5/ 20	9/ 20	7/ 20	5/ 10
KIDNEY					
PIGMENT	2/ 81	0/ 20	0/ 20	0/ 20	0/ 10
BILE DUCT					
HYPERPLASIA	4/ 84	0/ 20	2/ 20	0/ 20	0/ 10
BILE DUCT					
CHRONIC INFLAMMATION	31/ 84	8/ 20	8/ 20	4/ 20	5/ 10
LIVER					
VACUOLIZATION	2/ 84	0/ 20	1/ 20	0/ 20	0/ 10
LIVER					
NECROSIS	8/ 84	1/ 20	4/ 20	0/ 20	1/ 10
LIVER					
CHRONIC INFLAMMATION	43/ 84	10/ 20	11/ 20	10/ 20	6/ 10
STOMACH					
CHRONIC INFLAMMATION	1/ 75	0/ 19	0/ 18	0/ 20	1/ 9
COLON					
CRYSTALLINE DEPOSITS	20/ 80	7/ 20	3/ 20	5/ 20	4/ 10
COLON					
PARASITES	11/ 80	6/ 20	0/ 20	1/ 20	3/ 10
COLON					
CHRONIC INFLAMMATION	1/ 80	1/ 20	0/ 20	0/ 20	0/ 10
INTESTINE					
CRYSTALLINE DEPOSITS	26/ 80	3/ 20	10/ 20	4/ 20	3/ 10
PANCREAS					
CHRONIC INFLAMMATION	15/ 80	4/ 20	6/ 20	2/ 20	2/ 10
ADRENAL CORTEX					
VACUOLIZATION, SLIGHT	52/ 80	13/ 20	13/ 20	11/ 20	8/ 10
THYROID					
CHRONIC INFLAMMATION	1/ 80	0/ 20	0/ 20	0/ 20	0/ 10

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SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE BB 1
NON-NEOPLASTIC TOTALS

	TOTAL	CONTROL	V. HIGH	HIGH	MEDIUM
TESTIS					
HYOSPERMIA	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5
SEMINAL VESICLE					
CALCIFICATION	1/ 40	0/ 10	1/ 10	0/ 10	0/ 5
PROSTATE					
CHRONIC INFLAMMATION	6/ 40	1/ 10	1/ 10	3/ 10	1/ 5
BLADDER					
HYPERPLASIA, SLIGHT	1/ 78	0/ 20	0/ 19	1/ 20	0/ 10
BLADDER					
CALCULUS	5/ 78	1/ 20	0/ 19	1/ 20	0/ 10
BLADDER					
ACUTE INFLAMMATION	1/ 78	0/ 20	1/ 19	0/ 20	0/ 10
BLADDER					
CHRONIC INFLAMMATION	1/ 78	0/ 20	0/ 19	0/ 20	1/ 10
OVARY					
PIGMENT	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5
OVARY					
CYST	1/ 40	1/ 10	0/ 10	0/ 10	0/ 5
SKIN AND SUBCUTIS					
ULCERATION	2/ 80	0/ 20	1/ 20	0/ 20	0/ 10
VAGINA					
CYST	1/ 39	0/ 9	0/ 10	1/ 10	0/ 5
VAGINA					
CHRONIC INFLAMMATION	2/ 39	0/ 9	1/ 10	0/ 10	0/ 5

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SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE BB 1
NON-NEOPLASTIC TOTALS

	TOTAL	LOW
LUNG		
GRANULOMATOUS INFLAMMATION	1/ 79	0/ 10
LUNG		
ABSCESS	2/ 79	1/ 10
LUNG		
EDEMA, PULMONARY	1/ 79	0/ 10
LUNG		
CHRONIC MURINE BRONCHITIS	76/ 79	10/ 10
HEART		
FIBROSIS	4/ 80	1/ 10
HEART		
CHRONIC INFLAMMATION	18/ 80	3/ 10
KIDNEY		
HYDRONEPHROSIS	4/ 81	2/ 11
KIDNEY		
CALCIFICATION	13/ 81	2/ 11
KIDNEY		
NECROSIS	1/ 81	0/ 11
KIDNEY		
GLOMERULOSCLEROSIS	2/ 81	2/ 11
KIDNEY		
CHRONIC INFLAMMATION	31/ 81	5/ 11
KIDNEY		
PIGMENT	2/ 81	2/ 11
BILE DUCT		
HYPERPLASIA	4/ 84	2/ 14
BILE DUCT		
CHRONIC INFLAMMATION	31/ 84	6/ 14
LIVER		
VACUOLIZATION	2/ 84	1/ 14
LIVER		
NECROSIS	8/ 84	2/ 14
LIVER		
CHRONIC INFLAMMATION	43/ 84	6/ 14
STOMACH		
CHRONIC INFLAMMATION	1/ 75	0/ 9
COLON		
CRYSTALLINE DEPOSITS	20/ 80	1/ 10
COLON		
PARASITES	11/ 80	1/ 10
COLON		
CHRONIC INFLAMMATION	1/ 80	0/ 10
INTESTINE		
CRYSTALLINE DEPOSITS	26/ 80	6/ 10
PANCREAS		
CHRONIC INFLAMMATION	15/ 80	1/ 10
ADRENAL CORTEX		
VACUOLIZATION, SLIGHT	52/ 80	7/ 10
THYROID		
CHRONIC INFLAMMATION	1/ 80	1/ 10

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE 88 1
NON-NEOPLASTIC TOTALS

	TOTAL	LOW
TESTIS		
HYPOSERMIA	1/ 40	1/ 5
SEMINAL VESICLE		
CALCIFICATION	1/ 40	0/ 5
PROSTATE		
CHRONIC INFLAMMATION	6/ 40	0/ 5
BLADDER		
HYPERPLASIA, SLIGHT	1/ 78	0/ 9
CALCULUS	5/ 78	3/ 9
ACUTE INFLAMMATION	1/ 78	0/ 9
CHRONIC INFLAMMATION	1/ 78	0/ 9
OVARY		
PIGMENT	1/ 40	1/ 5
CYST	1/ 40	0/ 5
SKIN AND SUBCUTIS		
ULCERATION	2/ 80	1/ 10
VAGINA		
CYST	1/ 39	0/ 5
CHRONIC INFLAMMATION	2/ 39	1/ 5

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SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE BB 2
NON-NEOPLASTIC MALE

	TOTAL	CONTROL	V. HIGH	HIGH	MEDIUM
LUNG					
GRANULOMATOUS INFLAMMATION	0/ 39	0/ 10	0/ 9	0/ 10	0/ 5
LUNG					
ABSCESS	2/ 39	0/ 10	0/ 9	1/ 10	0/ 5
LUNG					
EDEMA, PULMONARY	1/ 39	0/ 10	1/ 9	0/ 10	0/ 5
LUNG					
CHRONIC MURINE BRONCHITIS	39/ 39	10/ 10	9/ 9	10/ 10	5/ 5
HEART					
FIBROSIS	3/ 40	0/ 10	2/ 10	1/ 10	0/ 5
HEART					
CHRONIC INFLAMMATION	13/ 40	3/ 10	3/ 10	4/ 10	1/ 5
KIDNEY					
HYDRONEPHROSIS	0/ 41	0/ 10	0/ 10	0/ 10	0/ 5
KIDNEY					
CALCIFICATION	2/ 41	1/ 10	0/ 10	0/ 10	0/ 5
KIDNEY					
NECROSIS	0/ 41	0/ 10	0/ 10	0/ 10	0/ 5
KIDNEY					
GLOMERULOSCLEROSIS	1/ 41	0/ 10	0/ 10	0/ 10	0/ 5
KIDNEY					
CHRONIC INFLAMMATION	16/ 41	2/ 10	5/ 10	3/ 10	2/ 5
KIDNEY					
PIGMENT	1/ 41	0/ 10	0/ 10	0/ 10	0/ 5
BILE DUCT					
HYPERPLASIA	3/ 44	0/ 10	1/ 10	0/ 10	0/ 5
BILE DUCT					
CHRONIC INFLAMMATION	17/ 44	5/ 10	4/ 10	2/ 10	2/ 5
LIVER					
VACUOLIZATION	2/ 44	0/ 10	1/ 10	0/ 10	0/ 5
LIVER					
NECROSIS	3/ 44	0/ 10	1/ 10	0/ 10	1/ 5
LIVER					
CHRONIC INFLAMMATION	28/ 44	7/ 10	6/ 10	6/ 10	5/ 5
STOMACH					
CHRONIC INFLAMMATION	1/ 38	0/ 9	0/ 10	0/ 10	1/ 4
COLON					
CRYSTALLINE DEPOSITS	15/ 40	5/ 10	1/ 10	5/ 10	3/ 5
COLON					
PARASITES	9/ 40	4/ 10	0/ 10	1/ 10	3/ 5
COLON					
CHRONIC INFLAMMATION	1/ 40	1/ 10	0/ 10	0/ 10	0/ 5
INTESTINE					
CRYSTALLINE DEPOSITS	12/ 40	1/ 10	5/ 10	3/ 10	1/ 5
PANCREAS					
CHRONIC INFLAMMATION	9/ 40	2/ 10	5/ 10	0/ 10	1/ 5
ADRENAL CORTEX					
VACUOLIZATION, SLIGHT	34/ 40	9/ 10	7/ 10	8/ 10	5/ 5
THYROID					
CHRONIC INFLAMMATION	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE BB 2
NON-NEOPLASTIC MALE

	TOTAL	CONTROL	V. HIGH	HIGH	MEDIUM
TESTIS					
HYPOSPERMIA	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5
SEMINAL VESICLE					
CALCIFICATION	1/ 40	0/ 10	1/ 10	0/ 10	0/ 5
PROSTATE					
CHRONIC INFLAMMATION	6/ 40	1/ 10	1/ 10	3/ 10	1/ 5
BLADDER					
HYPERPLASIA, SLIGHT	0/ 39	0/ 10	0/ 9	0/ 10	0/ 5
BLADDER					
CALCULUS	5/ 39	1/ 10	0/ 9	1/ 10	0/ 5
BLADDER					
ACUTE INFLAMMATION	0/ 39	0/ 10	0/ 9	0/ 10	0/ 5
BLADDER					
CHRONIC INFLAMMATION	0/ 39	0/ 10	0/ 9	0/ 10	0/ 5
OVARY					
PIGMENT	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
OVARY					
CYST	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0
SKIN AND SUBCUTIS					
ULCERATION	0/ 40	0/ 10	0/ 10	0/ 10	0/ 5

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE BB 2
NON-NEOPLASTIC MALE

	TOTAL	LOW
LUNG		
GRANULOMATOUS INFLAMMATION	0/ 39	0/ 5
LUNG		
ABSCCESS	2/ 39	1/ 5
LUNG		
EDEMA, PULMONARY	1/ 39	0/ 5
LUNG		
CHRONIC MURINE BRONCHITIS	39/ 39	5/ 5
HEART		
FIBROSIS	3/ 40	0/ 5
HEART		
CHRONIC INFLAMMATION	13/ 40	2/ 5
KIDNEY		
HYDRONEPHROSIS	0/ 41	0/ 6
KIDNEY		
CALCIFICATION	2/ 41	1/ 6
KIDNEY		
NECROSIS	0/ 41	0/ 6
KIDNEY		
GLOMERULOSCLEROSIS	1/ 41	1/ 6
KIDNEY		
CHRONIC INFLAMMATION	16/ 41	4/ 6
KIDNEY		
PIGMENT	1/ 41	1/ 6
BILE DUCT		
HYPERPLASIA	3/ 44	2/ 9
BILE DUCT		
CHRONIC INFLAMMATION	17/ 44	4/ 9
LIVER		
VACUOLIZATION	2/ 44	1/ 9
LIVER		
NECROSIS	3/ 44	1/ 9
LIVER		
CHRONIC INFLAMMATION	28/ 44	4/ 9
STOMACH		
CHRONIC INFLAMMATION	1/ 38	0/ 5
COLON		
CRYSTALLINE DEPOSITS	15/ 40	1/ 5
COLON		
PARASITES	9/ 40	1/ 5
COLON		
CHRONIC INFLAMMATION	1/ 40	0/ 5
INTESTINE		
CRYSTALLINE DEPOSITS	12/ 40	2/ 5
PANCREAS		
CHRONIC INFLAMMATION	9/ 40	1/ 5
ADRENAL CORTEX		
VACUOLIZATION, SLIGHT	34/ 40	5/ 5
THYROID		
CHRONIC INFLAMMATION	1/ 40	1/ 5

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE BB 2
NON-NEOPLASTIC MALE

	TOTAL	LOW
TESTIS		
HYPOSPERMIA	1/ 40	1/ 5
SEMINAL VESICLE		
CALCIFICATION	1/ 40	0/ 5
PROSTATE		
CHRONIC INFLAMMATION	6/ 40	0/ 5
BLADDER		
HYPERPLASIA, SLIGHT	0/ 39	0/ 5
BLADDER		
CALCULUS	5/ 39	3/ 5
BLADDER		
ACUTE INFLAMMATION	0/ 39	0/ 5
BLADDER		
CHRONIC INFLAMMATION	0/ 39	0/ 5
OVARY		
PIGMENT	0/ 0	0/ 0
OVARY		
CYST	0/ 0	0/ 0
SKIN AND SUBCUTIS		
ULCERATION	0/ 40	0/ 5

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE BB 3

NON-NEOPLASTIC

FEMALE

	TOTAL	CONTROL	V. HIGH	HIGH	MEDIUM
LUNG					
GRANULOMATOUS INFLAMMATION	1/ 40	0/ 10	1/ 10	0/ 10	0/ 5
LUNG					
ABSCESS	0/ 40	0/ 10	0/ 10	0/ 10	0/ 5
LUNG					
EDEMA, PULMONARY	0/ 40	0/ 10	0/ 10	0/ 10	0/ 5
LUNG					
CHRONIC MURINE BRONCHITIS	37/ 40	8/ 10	10/ 10	10/ 10	4/ 5
HEART					
FIBROSIS	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5
HEART					
CHRONIC INFLAMMATION	5/ 40	3/ 10	0/ 10	1/ 10	0/ 5
KIDNEY					
HYDRONEPHROSIS	4/ 40	0/ 10	2/ 10	0/ 10	0/ 5
KIDNEY					
CALCIFICATION	11/ 40	3/ 10	4/ 10	1/ 10	2/ 5
KIDNEY					
NECROSIS	1/ 40	0/ 10	1/ 10	0/ 10	0/ 5
KIDNEY					
GLOMERULOSCLEROSIS	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5
KIDNEY					
CHRONIC INFLAMMATION	15/ 40	3/ 10	4/ 10	4/ 10	3/ 5
KIDNEY					
PIGMENT	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5
BILE DUCT					
HYPERPLASIA	1/ 40	0/ 10	1/ 10	0/ 10	0/ 5
BILE DUCT					
CHRONIC INFLAMMATION	14/ 40	3/ 10	4/ 10	2/ 10	3/ 5
LIVER					
VACUOLIZATION	0/ 40	0/ 10	0/ 10	0/ 10	0/ 5
LIVER					
NECROSIS	5/ 40	1/ 10	3/ 10	0/ 10	0/ 5
LIVER					
CHRONIC INFLAMMATION	15/ 40	3/ 10	5/ 10	4/ 10	1/ 5
STOMACH					
CHRONIC INFLAMMATION	0/ 37	0/ 10	0/ 8	0/ 10	0/ 5
COLON					
CRYSTALLINE DEPOSITS	5/ 40	2/ 10	2/ 10	0/ 10	1/ 5
COLON					
PARASITES	2/ 40	2/ 10	0/ 10	0/ 10	0/ 5
COLON					
CHRONIC INFLAMMATION	0/ 40	0/ 10	0/ 10	0/ 10	0/ 5
INTESTINE					
CRYSTALLINE DEPOSITS	14/ 40	2/ 10	5/ 10	1/ 10	2/ 5
PANCREAS					
CHRONIC INFLAMMATION	6/ 40	2/ 10	1/ 10	2/ 10	1/ 5
ADRENAL CORTEX					
VACUOLIZATION, SLIGHT	18/ 40	4/ 10	6/ 10	3/ 10	3/ 5
THYROID					
CHRONIC INFLAMMATION	0/ 40	0/ 10	0/ 10	0/ 10	0/ 5

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE BB 3
NON-NEOPLASTIC FEMALE

	TOTAL	CONTROL	V. HIGH	HIGH	MEDIUM
BLADDER					
HYPERPLASIA, SLIGHT	1/ 39	0/ 10	0/ 10	1/ 10	0/ 5
BLADDER					
CALCULUS	0/ 39	0/ 10	0/ 10	0/ 10	0/ 5
BLADDER					
ACUTE INFLAMMATION	1/ 39	0/ 10	1/ 10	0/ 10	0/ 5
BLADDER					
CHRONIC INFLAMMATION	1/ 39	0/ 10	0/ 10	0/ 10	1/ 5
OVARY					
PIGMENT	1/ 40	0/ 10	0/ 10	0/ 10	0/ 5
OVARY					
CYST	1/ 40	1/ 10	0/ 10	0/ 10	0/ 5
SKIN AND SUBCUTIS					
ULCERATION	2/ 40	0/ 10	1/ 10	0/ 10	0/ 5
VAGINA					
CYST	1/ 39	0/ 9	0/ 10	1/ 10	0/ 5
VAGINA					
CHRONIC INFLAMMATION	2/ 39	0/ 9	1/ 10	0/ 10	0/ 5

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE BB 3
NON-NEOPLASTIC FEMALE

	TOTAL	LOW
LUNG		
GRANULOMATOUS INFLAMMATION	1/ 40	0/ 5
LUNG		
ABSCCESS	0/ 40	0/ 5
LUNG		
EDEMA, PULMONARY	0/ 40	0/ 5
LUNG		
CHRONIC MURINE BRONCHITIS	37/ 40	5/ 5
HEART		
FIBROSIS	1/ 40	1/ 5
HEART		
CHRONIC INFLAMMATION	5/ 40	1/ 5
KIDNEY		
HYDRONEPHROSIS	4/ 40	2/ 5
KIDNEY		
CALCIFICATION	11/ 40	1/ 5
KIDNEY		
NECROSIS	1/ 40	0/ 5
KIDNEY		
GLOMERULOSCLEROSIS	1/ 40	1/ 5
KIDNEY		
CHRONIC INFLAMMATION	15/ 40	1/ 5
KIDNEY		
PIGMENT	1/ 40	1/ 5
BILE DUCT		
HYPERPLASIA	1/ 40	0/ 5
BILE DUCT		
CHRONIC INFLAMMATION	14/ 40	2/ 5
LIVER		
VACUOLIZATION	0/ 40	0/ 5
LIVER		
NECROSIS	5/ 40	1/ 5
LIVER		
CHRONIC INFLAMMATION	15/ 40	2/ 5
STOMACH		
CHRONIC INFLAMMATION	0/ 37	0/ 4
COLON		
CRYSTALLINE DEPOSITS	5/ 40	0/ 5
COLON		
PARASITES	2/ 40	0/ 5
COLON		
CHRONIC INFLAMMATION	0/ 40	0/ 5
INTESTINE		
CRYSTALLINE DEPOSITS	14/ 40	4/ 5
PANCREAS		
CHRONIC INFLAMMATION	6/ 40	0/ 5
ADRENAL CORTEX		
VACUOLIZATION, SLIGHT	18/ 40	2/ 5
THYROID		
CHRONIC INFLAMMATION	0/ 40	0/ 5

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

SUMMARY OF PATHOLOGICAL CONDITIONS BY GROUP

TABLE BB 3
NON-NEOPLASTIC FEMALE

	TOTAL	LOW
BLADDER		
HYPERPLASIA, SLIGHT	1/ 39	0/ 4
BLADDER		
CALCULUS	0/ 39	0/ 4
BLADDER		
ACUTE INFLAMMATION	1/ 39	0/ 4
BLADDER		
CHRONIC INFLAMMATION	1/ 39	0/ 4
OVARY		
PIGMENT	1/ 40	1/ 5
OVARY		
CYST	1/ 40	0/ 5
SKIN AND SUBCUTIS		
ULCERATION	2/ 40	1/ 5
VAGINA		
CYST	1/ 39	0/ 5
VAGINA		
CHRONIC INFLAMMATION	2/ 39	1/ 5

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE B

FEMALE GROUP CONTROL

	9	9	9	9	9	9	9	9	9	9
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	1	1
	9	9	9	9	9	9	9	9	0	0
	2	3	4	5	6	7	8	9	0	1
LUNG										
GRANULOMATOUS INFLAMMATION	0	0	0	0	0	0	0	0	0	0
LUNG										
ABSCCESS	0	0	0	0	0	0	0	0	0	0
LUNG										
EDEMA, PULMONARY	0	0	0	0	0	0	0	0	0	0
LUNG										
CHRONIC MURINE BRONCHITIS	1	1	0	1	1	1	1	0	1	1
HEART										
FIBROSIS	0	0	0	0	0	0	0	0	0	0
HEART										
CHRONIC INFLAMMATION	0	0	0	1	0	0	1	0	0	1
KIDNEY										
HYDRONEPHROSIS	0	0	0	0	0	0	0	0	0	0
KIDNEY										
CALCIFICATION	0	0	0	0	0	0	1	0	1	1
KIDNEY										
NECROSIS	0	0	0	0	0	0	0	0	0	0
KIDNEY										
GLOMERULOSCLEROSIS	0	0	0	0	0	0	0	0	0	0
KIDNEY										
CHRONIC INFLAMMATION	0	0	0	1	0	0	1	0	0	1
KIDNEY										
PIGMENT	0	0	0	0	0	0	0	0	0	0
BILE DUCT										
HYPERPLASIA	0	0	0	0	0	0	0	0	0	0
BILE DUCT										
CHRONIC INFLAMMATION	0	0	0	0	0	0	0	1	1	1
LIVER										
VACUOLIZATION	0	0	0	0	0	0	0	0	0	0
LIVER										
NECROSIS	0	0	0	0	0	0	0	0	0	1
LIVER										
CHRONIC INFLAMMATION	0	0	0	1	0	0	0	1	0	1
STOMACH										
CHRONIC INFLAMMATION	0	0	0	0	0	0	0	0	0	0
COLON										
CRYSTALLINE DEPOSITS	0	1	0	0	0	0	0	0	0	1
COLON										
PARASITES	0	1	1	0	0	0	0	0	0	0
COLON										
CHRONIC INFLAMMATION	0	0	0	0	0	0	0	0	0	0
INTESTINE										
CRYSTALLINE DEPOSITS	0	0	0	0	0	1	0	0	1	0

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE B 2

FEMALE GROUP CONTROL

9	9	9	9	9	9	9	9	9	9
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	1
9	9	9	9	9	9	9	9	0	0
2	3	4	5	6	7	8	9	0	1

PANCREAS

CHRONIC INFLAMMATION

0 0 0 1 0 0 1 0 0 0

ADRENAL CORTEX

VACUOLIZATION, SLIGHT

1 0 0 0 0 1 0 1 0 1

THYROID

CHRONIC INFLAMMATION

0 0 0 0 0 0 0 0 0 0

BLADDER

HYPERPLASIA, SLIGHT

0 0 0 0 0 0 0 0 0 0

BLADDER

CALCULUS

0 0 0 0 0 0 0 0 0 0

BLADDER

ACUTE INFLAMMATION

0 0 0 0 0 0 0 0 0 0

BLADDER

CHRONIC INFLAMMATION

0 0 0 0 0 0 0 0 0 0

OVARY

PIGMENT

0 0 0 0 0 0 0 0 0 0

OVARY

CYST

0 0 0 0 0 0 0 0 0 1

SKIN AND SUBCUTIS

ULCERATION

0 0 0 0 0 0 0 0 0 0

VAGINA

CYST

0 0 0 0 0 0 0 0 NE 0

VAGINA

CHRONIC INFLAMMATION

0 0 0 0 0 0 0 0 NE 0

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE C 1

MALE GROUP V. HIGH

9	9	9	9	9	9	9	9	9	9
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	1	1
2	3	4	5	6	7	8	9	0	1

LUNG										
GRANULOMATOUS INFLAMMATION	0	0	NE	0	0	0	0	0	0	0
LUNG										
ABSCCESS	0	0	NE	0	0	0	0	0	0	0
LUNG										
EDEMA, PULMONARY	0	0	NE	0	0	0	0	0	1	0
LUNG										
CHRONIC MURINE BRONCHITIS	1	1	NE	1	1	1	1	1	1	1
HEART										
FIBROSIS	0	0	0	0	0	0	0	0	1	1
HEART										
CHRONIC INFLAMMATION	1	1	0	0	1	0	0	0	0	0
KIDNEY										
HYDRONEPHROSIS	0	0	0	0	0	0	0	0	0	0
KIDNEY										
CALCIFICATION	0	0	0	0	0	0	0	0	0	0
KIDNEY										
NECROSIS	0	0	0	0	0	0	0	0	0	0
KIDNEY										
GLOMERULOSCLEROSIS	0	0	0	0	0	0	0	0	0	0
KIDNEY										
CHRONIC INFLAMMATION	1	1	0	0	1	0	0	1	1	0
KIDNEY										
PIGMENT	0	0	0	0	0	0	0	0	0	0
BILE DUCT										
HYPERPLASIA	1	0	0	0	0	0	0	0	0	0
BILE DUCT										
CHRONIC INFLAMMATION	0	0	0	0	1	0	1	1	1	0
LIVER										
VACUOLIZATION	0	0	0	0	0	0	0	0	0	1
LIVER										
NECROSIS	1	0	0	0	0	0	0	0	0	0
LIVER										
CHRONIC INFLAMMATION	1	0	1	1	1	0	1	1	0	0
STOMACH										
CHRONIC INFLAMMATION	0	0	0	0	0	0	0	0	0	0
COLON										
CRYSTALLINE DEPOSITS	0	0	0	0	1	0	0	0	0	0
COLON										
PARASITES	0	0	0	0	0	0	0	0	0	0
COLON										
CHRONIC INFLAMMATION	0	0	0	0	0	0	0	0	0	0
INTESTINE										
CRYSTALLINE DEPOSITS	0	0	1	1	0	0	0	1	1	1

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE C 2

MALE GROUP V. HIGH

9	9	9	9	9	9	9	9	9	9
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	1	1
2	3	4	5	6	7	8	9	0	1

PANCREAS

CHRONIC INFLAMMATION

1 0 0 1 1 0 1 1 0 0

ADRENAL CORTEX

VACUOLIZATION, SLIGHT

0 1 0 1 1 1 1 0 1 1

THYROID

CHRONIC INFLAMMATION

0 0 0 0 0 0 0 0 0 0

TESTIS

HYPOSPERMIA

0 0 0 0 0 0 0 0 0 0

SEMINAL VESICLE

CALCIFICATION

0 0 0 0 0 0 0 0 1 0

PROSTATE

CHRONIC INFLAMMATION

0 0 1 0 0 0 0 0 0 0

BLADDER

HYPERPLASIA, SLIGHT

0 0 0 0 0 0 0 0 NE 0

BLADDER

CALCULUS

0 0 0 0 0 0 0 0 NE 0

BLADDER

ACUTE INFLAMMATION

0 0 0 0 0 0 0 0 NE 0

BLADDER

CHRONIC INFLAMMATION

0 0 0 0 0 0 0 0 NE 0

OVARY

PIGMENT

NE NE NE NE NE NE NE NE NE NE

OVARY

CYST

NE NE NE NE NE NE NE NE NE NE

SKIN AND SUBCUTIS

ULCERATION

0 0 0 0 0 0 0 0 0 0

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE D 1

FEMALE GROUP V. HIGH

	9	9	9	9	9	9	9	9	9	9
	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	2	2
	2	3	4	5	6	7	8	9	0	1
LUNG										
GRANULOMATOUS INFLAMMATION	0	0	1	0	0	0	0	0	0	0
LUNG										
ABSCCESS	0	0	0	0	0	0	0	0	0	0
LUNG										
EDEMA, PULMONARY	0	0	0	0	0	0	0	0	0	0
LUNG										
CHRONIC MURINE BRONCHITIS	1	1	1	1	1	1	1	1	1	1
HEART										
FIBROSIS	0	0	0	0	0	0	0	0	0	0
HEART										
CHRONIC INFLAMMATION	0	0	0	0	0	0	0	0	0	0
KIDNEY										
HYDRONEPHROSIS	1	0	0	0	1	0	0	0	0	0
KIDNEY										
CALCIFICATION	0	0	1	0	0	0	1	0	1	1
KIDNEY										
NECROSIS	0	0	0	0	1	0	0	0	0	0
KIDNEY										
GLOMERULOSCLEROSIS	0	0	0	0	0	0	0	0	0	0
KIDNEY										
CHRONIC INFLAMMATION	0	0	0	1	1	0	1	1	0	0
KIDNEY										
PIGMENT	0	0	0	0	0	0	0	0	0	0
BILE DUCT										
HYPERPLASIA	0	0	1	0	0	0	0	0	0	0
BILE DUCT										
CHRONIC INFLAMMATION	0	1	1	1	0	0	1	0	0	0
LIVER										
VACUOLIZATION	0	0	0	0	0	0	0	0	0	0
LIVER										
NECROSIS	0	0	1	0	0	0	1	0	0	1
LIVER										
CHRONIC INFLAMMATION	1	1	0	0	0	0	1	1	0	1
STOMACH										
CHRONIC INFLAMMATION	0	0	0	0	NE	NE	0	0	0	0
COLON										
CRYSTALLINE DEPOSITS	0	0	1	0	0	1	0	0	0	0
COLON										
PARASITES	0	0	0	0	0	0	0	0	0	0
COLON										
CHRONIC INFLAMMATION	0	0	0	0	0	0	0	0	0	0
INTESTINE										
CRYSTALLINE DEPOSITS	1	1	0	0	1	0	0	1	0	1

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE D 2

FEMALE GROUP V. HIGH

9	9	9	9	9	9	9	9	9	9
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	2	2
2	3	4	5	6	7	8	9	0	1

PANCREAS

CHRONIC INFLAMMATION

0 0 0 0 0 0 0 0 0 1

ADRENAL CORTX

VACUOLIZATION, SLIGHT

1 0 1 0 1 1 0 1 0 1

THYROID

CHRONIC INFLAMMATION

0 0 0 0 0 0 0 0 0 0

BLADDER

HYPERPLASIA, SLIGHT

0 0 0 0 0 0 0 0 0 0

BLADDER

CALCULUS

0 0 0 0 0 0 0 0 0 0

BLADDER

ACUTE INFLAMMATION

0 0 0 0 0 0 0 0 0 1

BLADDER

CHRONIC INFLAMMATION

0 0 0 0 0 0 0 0 0 0

OVARY

PIGMENT

0 0 0 0 0 0 0 0 0 0

OVARY

CYST

0 0 0 0 0 0 0 0 0 0

SKIN AND SUBCUTIS

ULCERATION

0 0 1 0 0 0 0 0 0 0

VAGINA

CYST

0 0 0 0 0 0 0 0 0 0

VAGINA

CHRONIC INFLAMMATION

0 0 0 0 0 0 0 0 0 1

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE E 1

MALE GROUP HIGH

9	9	9	9	9	9	9	9	9	9
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	3	3
2	3	4	5	6	7	8	9	0	1

LUNG										
GRANULOMATOUS INFLAMMATION	0	0	0	0	0	0	0	0	0	0
LUNG										
ABSCCESS	0	0	0	0	0	0	0	1	0	0
LUNG										
EDEMA, PULMONARY	0	0	0	0	0	0	0	0	0	0
LUNG										
CHRONIC MURINE BRONCHITIS	1	1	1	1	1	1	1	1	1	1
HEART										
FIBROSIS	0	0	1	0	0	0	0	0	0	0
HEART										
CHRONIC INFLAMMATION	0	0	0	1	1	0	1	0	0	1
KIDNEY										
HYDRONEPHROSIS	0	0	0	0	0	0	0	0	0	0
KIDNEY										
CALCIFICATION	0	0	0	0	0	0	0	0	0	0
KIDNEY										
NECROSIS	0	0	0	0	0	0	0	0	0	0
KIDNEY										
GLOMERULOSCLEROSIS	0	0	0	0	0	0	0	0	0	0
KIDNEY										
CHRONIC INFLAMMATION	0	1	1	0	0	0	1	0	0	0
KIDNEY										
PIGMENT	0	0	0	0	0	0	0	0	0	0
BILE DUCT										
HYPERPLASIA	0	0	0	0	0	0	0	0	0	0
BILE DUCT										
CHRONIC INFLAMMATION	0	1	0	0	0	0	1	0	0	0
LIVER										
VACUOLIZATION	0	0	0	0	0	0	0	0	0	0
LIVER										
NECROSIS	0	0	0	0	0	0	0	0	0	0
LIVER										
CHRONIC INFLAMMATION	1	1	0	0	1	0	1	0	1	1
STOMACH										
CHRONIC INFLAMMATION	0	0	0	0	0	0	0	0	0	0
COLON										
CRYSTALLINE DEPOSITS	0	1	0	1	1	0	1	0	0	1
COLON										
PARASITES	1	0	0	0	0	0	0	0	0	0
COLON										
CHRONIC INFLAMMATION	0	0	0	0	0	0	0	0	0	0
INTESTINE										
CRYSTALLINE DEPOSITS	0	0	1	0	0	0	0	0	1	1

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE E 2

MALE GROUP HIGH

9	9	9	9	9	9	9	9	9	9
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	3	3
2	3	4	5	6	7	8	9	0	1

PANCREAS

CHRONIC INFLAMMATION

0 0 0 0 0 0 0 0 0 0

ADRENAL CORTX

VACUOLIZATION, SLIGHT

1 1 1 1 1 1 1 1 0 0

THYROID

CHRONIC INFLAMMATION

0 0 0 0 0 0 0 0 0 0

TESTIS

HYOSPERMIA

0 0 0 0 0 0 0 0 0 0

SEMINAL VESICLE

CALCIFICATION

0 0 0 0 0 0 0 0 0 0

PROSTATE

CHRONIC INFLAMMATION

0 0 1 0 1 0 0 0 1 0

BLADDER

HYPERPLASIA, SLIGHT

0 0 0 0 0 0 0 0 0 0

BLADDER

CALCULUS

0 0 0 0 0 0 1 0 0 0

BLADDER

ACUTE INFLAMMATION

0 0 0 0 0 0 0 0 0 0

BLADDER

CHRONIC INFLAMMATION

0 0 0 0 0 0 0 0 0 0

OVARY

PIGMENT

NE NE NE NE NE NE NE NE NE NE

OVARY

CYST

NE NE NE NE NE NE NE NE NE NE

SKIN AND SUBCUTIS

ULCERATION

0 0 0 0 0 0 0 0 0 0

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TABLE F 1

GROUP

HIGH

9	9	9	9	9	9	9	9	9	9
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
3	3	3	3	3	3	3	3	4	4
2	3	4	5	6	7	8	9	0	1

[illegible]

[illegible][illegible][illegible][illegible][illegible]

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE G 1
MALE GROUP MEDIUM

9 9 9 9 9
0 0 0 0 0
1 1 1 1 1
4 4 4 4 4
2 3 4 5 6

LUNG					
GRANULOMATOUS INFLAMMATION	0	0	0	0	0
LUNG					
ABSCISS	0	0	0	0	0
LUNG					
EDEMA, PULMONARY	0	0	0	0	0
LUNG					
CHRONIC MURINE BRONCHITIS	1	1	1	1	1
HEART					
FIBROSIS	0	0	0	0	0
HEART					
CHRONIC INFLAMMATION	0	0	0	0	1
KIDNEY					
HYDRONEPHROSIS	0	0	0	0	0
KIDNEY					
CALCIFICATION	0	0	0	0	0
KIDNEY					
NECROSIS	0	0	0	0	0
KIDNEY					
GLOMERULOSCLEROSIS	0	0	0	0	0
KIDNEY					
CHRONIC INFLAMMATION	1	0	0	0	1
KIDNEY					
PIGMENT	0	0	0	0	0
BILE DUCT					
HYPERPLASIA	0	0	0	0	0
BILE DUCT					
CHRONIC INFLAMMATION	1	0	0	0	1
LIVER					
VACUOLIZATION	0	0	0	0	0
LIVER					
NECROSIS	0	0	0	0	1
LIVER					
CHRONIC INFLAMMATION	1	1	1	1	1
STOMACH					
CHRONIC INFLAMMATION	0	0	0	NE	1
COLON					
CRYSTALLINE DEPOSITS	1	0	1	1	0
COLON					
PARASITES	0	0	1	1	1
COLON					
CHRONIC INFLAMMATION	0	0	0	0	0
INTESTINE					
CRYSTALLINE DEPOSITS	0	0	0	1	0

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE G 2

MALE GROUP MEDIUM

9	9	9	9	9
0	0	0	0	0
1	1	1	1	1
4	4	4	4	4
2	3	4	5	6

PANCREAS

CHRONIC INFLAMMATION

1 0 0 0 0

ADRENAL CORTEX

VACUOLIZATION, SLIGHT

1 1 1 1 1

THYROID

CHRONIC INFLAMMATION

0 0 0 0 0

TESTIS

HYOSPERMIA

0 0 0 0 0

SEMINAL VESICLE

CALCIFICATION

0 0 0 0 0

PROSTATE

CHRONIC INFLAMMATION

0 0 1 0 0

BLADDER

HYPERPLASIA, SLIGHT

0 0 0 0 0

BLADDER

CALCULUS

0 0 0 0 0

BLADDER

ACUTE INFLAMMATION

0 0 0 0 0

BLADDER

CHRONIC INFLAMMATION

0 0 0 0 0

OVARY

PIGMENT

NE NE NE NE NE

OVARY

CYST

NE NE NE NE NE

SKIN AND SUBCUTIS

ULCERATION

0 0 0 0 0

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE H 1

FEMALE GROUP MEDIUM

9	9	9	9	9	9
0	0	0	0	0	0
1	1	1	1	1	1
5	5	5	5	5	6
2	3	4	5	6	1

LUNG						
GRANULOMATOUS INFLAMMATION	0	0	0	0	0	NE
LUNG						
ABSCCESS	0	0	0	0	0	NE
LUNG						
EDEMA, PULMONARY	0	0	0	0	0	NE
LUNG						
CHRONIC MURINE BRONCHITIS	1	1	1	1	0	NE
HEART						
FIBROSIS	0	0	0	0	0	NE
HEART						
CHRONIC INFLAMMATION	0	0	0	0	0	NE
KIDNEY						
HYDRONEPHROSIS	0	0	0	0	0	NE
KIDNEY						
CALCIFICATION	0	0	0	1	1	NE
KIDNEY						
NECROSIS	0	0	0	0	0	NE
KIDNEY						
GLOMERULOSCLEROSIS	0	0	0	0	0	NE
KIDNEY						
CHRONIC INFLAMMATION	0	1	0	1	1	NE
KIDNEY						
PIGMENT	0	0	0	0	0	NE
BILE DUCT						
HYPERPLASIA	0	0	0	0	0	NE
BILE DUCT						
CHRONIC INFLAMMATION	0	1	1	0	1	NE
LIVER						
VACUOLIZATION	0	0	0	0	0	NE
LIVER						
NECROSIS	0	0	0	0	0	NE
LIVER						
CHRONIC INFLAMMATION	0	0	1	0	0	NE
STOMACH						
CHRONIC INFLAMMATION	0	0	0	0	0	NE
COLON						
CRYSTALLINE DEPOSITS	0	0	0	0	1	NE
COLON						
PARASITES	0	0	0	0	0	NE
COLON						
CHRONIC INFLAMMATION	0	0	0	0	0	NE
INTESTINE						
CRYSTALLINE DEPOSITS	1	0	0	1	0	NE

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE H 2

FEMALE GROUP MEDIUM

9	9	9	9	9	9
0	0	0	0	0	0
1	1	1	1	1	1
5	5	5	5	5	6
2	3	4	5	6	1

PANCREAS						
CHRONIC INFLAMMATION	0	0	0	0	1	NE
ADRENAL CORTEX						
VACUOLIZATION, SLIGHT	1	0	1	1	0	NE
THYROID						
CHRONIC INFLAMMATION	0	0	0	0	0	NE
BLADDER						
HYPERPLASIA, SLIGHT	0	0	0	0	0	NE
BLADDER						
CALCULUS	0	0	0	0	0	NE
BLADDER						
ACUTE INFLAMMATION	0	0	0	0	0	NE
BLADDER						
CHRONIC INFLAMMATION	0	0	0	1	0	NE
OVARY						
PIGMENT	0	0	0	0	0	NE
OVARY						
CYST	0	0	0	0	0	NE
SKIN AND SUBCUTIS						
ULCERATION	0	0	0	0	0	NE
VAGINA						
CYST	0	0	0	0	0	NE
VAGINA						
CHRONIC INFLAMMATION	0	0	0	0	0	NE

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE 1
MALE GROUP LOW

9	9	9	9	9	9	9	9	9
0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1
6	6	6	6	6	6	6	6	7
2	3	4	5	6	7	8	9	0

LUNG									
GRANULOMATOUS INFLAMMATION	0	0	0	0	0	NE	NE	NE	NE
LUNG									
ABSCCESS	1	0	0	0	0	NE	NE	NE	NE
LUNG									
EDEMA, PULMONARY	0	0	0	0	0	NE	NE	NE	NE
LUNG									
CHRONIC MURINE BRONCHITIS	1	1	1	1	1	NE	NE	NE	NE
HEART									
FIBROSIS	0	0	0	0	0	NE	NE	NE	NE
HEART									
CHRONIC INFLAMMATION	0	1	1	0	0	NE	NE	NE	NE
KIDNEY									
HYDRONEPHROSIS	0	0	0	0	0	NE	NE	NE	0
KIDNEY									
CALCIFICATION	0	1	0	0	0	NE	NE	NE	0
KIDNEY									
NECROSIS	0	0	0	0	0	NE	NE	NE	0
KIDNEY									
GLOMERULOSCLEROSIS	0	0	0	0	0	NE	NE	NE	1
KIDNEY									
CHRONIC INFLAMMATION	1	1	1	1	0	NE	NE	NE	0
KIDNEY									
PIGMENT	0	0	0	0	0	NE	NE	NE	1
BILE DUCT									
HYPERPLASIA	1	0	0	1	0	0	0	0	0
BILE DUCT									
CHRONIC INFLAMMATION	1	1	1	0	0	0	0	0	1
LIVER									
VACUOLIZATION	0	0	0	0	1	0	0	0	0
LIVER									
NECROSIS	0	1	0	0	0	0	0	0	0
LIVER									
CHRONIC INFLAMMATION	1	1	0	0	1	0	1	0	0
STOMACH									
CHRONIC INFLAMMATION	0	0	0	0	0	NE	NE	NE	NE
COLON									
CRYSTALLINE DEPOSITS	0	0	0	0	1	NE	NE	NE	NE
COLON									
PARASITES	0	0	0	1	0	NE	NE	NE	NE
COLON									
CHRONIC INFLAMMATION	0	0	0	0	0	NE	NE	NE	NE
INTESTINE									
CRYSTALLINE DEPOSITS	1	0	0	0	1	NE	NE	NE	NE

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE I 2
MALE GROUP LOW

9	9	9	9	9	9	9	9	9
0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1
6	6	6	6	6	6	6	6	7
2	3	4	5	6	7	8	9	0

PANCREAS

CHRONIC INFLAMMATION	0	0	1	0	0	NE	NE	NE	NE
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ADRENAL CORTEX

VACUOLIZATION, SLIGHT	1	1	1	1	1	NE	NE	NE	NE
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THYROID

CHRONIC INFLAMMATION	0	0	1	0	0	NE	NE	NE	NE
----------------------	---	---	---	---	---	----	----	----	----

TESTIS

HYPOSPERMIA	0	0	0	1	0	NE	NE	NE	NE
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SEMINAL VESICLE

CALCIFICATION	0	0	0	0	0	NE	NE	NE	NE
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PROSTATE

CHRONIC INFLAMMATION	0	0	0	0	0	NE	NE	NE	NE
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BLADDER

HYPERPLASIA, SLIGHT	0	0	0	0	0	NE	NE	NE	NE
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BLADDER

CALCULUS	1	1	1	0	0	NE	NE	NE	NE
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BLADDER

ACUTE INFLAMMATION	0	0	0	0	0	NE	NE	NE	NE
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BLADDER

CHRONIC INFLAMMATION	0	0	0	0	0	NE	NE	NE	NE
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OVARY

PIGMENT	NE	NE	NE	NE	NE	NE	NE	NE	NE
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OVARY

CYST	NE	NE	NE	NE	NE	NE	NE	NE	NE
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SKIN AND SUBCUTIS

ULCERATION	0	0	0	0	0	NE	NE	NE	NE
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MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE J 1
FEMALE GROUP LOW

9	9	9	9	9	9
0	0	0	0	0	0
1	1	1	1	1	1
7	7	7	7	7	8
2	3	4	5	6	1

LUNG						
GRANULOMATOUS INFLAMMATION	0	0	0	0	0	NE
LUNG						
ABSCCESS	0	0	0	0	0	NE
LUNG						
EDEMA, PULMONARY	0	0	0	0	0	NE
LUNG						
CHRONIC MURINE BRONCHITIS	1	1	1	1	1	NE
HEART						
FIBROSIS	0	0	0	1	0	NE
HEART						
CHRONIC INFLAMMATION	0	0	1	0	0	NE
KIDNEY						
HYDRONEPHROSIS	0	1	0	1	0	NE
KIDNEY						
CALCIFICATION	1	0	0	0	0	NE
KIDNEY						
NECROSIS	0	0	0	0	0	NE
KIDNEY						
GLOMERULOSCLEROSIS	1	0	0	0	0	NE
KIDNEY						
CHRONIC INFLAMMATION	0	0	1	0	0	NE
KIDNEY						
PIGMENT	1	0	0	0	0	NE
BILE DUCT						
HYPERPLASIA	0	0	0	0	0	NE
BILE DUCT						
CHRONIC INFLAMMATION	0	0	1	1	0	NE
LIVER						
VACUOLIZATION	0	0	0	0	0	NE
LIVER						
NECROSIS	1	0	0	0	0	NE
LIVER						
CHRONIC INFLAMMATION	1	0	1	0	0	NE
STOMACH						
CHRONIC INFLAMMATION	0	0	NE	0	0	NE
COLON						
CRYSTALLINE DEPOSITS	0	0	0	0	0	NE
COLON						
PARASITES	0	0	0	0	0	NE
COLON						
CHRONIC INFLAMMATION	0	0	0	0	0	NE
INTESTINE						
CRYSTALLINE DEPOSITS	1	1	0	1	1	NE

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

NON-NEOPLASTIC PATHOLOGICAL SUMMARY

TABLE J 2
FEMALE GROUP LOW

9	9	9	9	9	9
0	0	0	0	0	0
1	1	1	1	1	1
7	7	7	7	7	8
2	3	4	5	6	1

PANCREAS						
CHRONIC INFLAMMATION	0	0	0	0	0	NE
ADRENAL CORTEX						
VACUOLIZATION, SLIGHT	1	1	0	0	0	NE
THYROID						
CHRONIC INFLAMMATION	0	0	0	0	0	NE
BLADDER						
HYPERPLASIA, SLIGHT	0	0	NE	0	0	NE
BLADDER						
CALCULUS	0	0	NE	0	0	NE
BLADDER						
ACUTE INFLAMMATION	0	0	NE	0	0	NE
BLADDER						
CHRONIC INFLAMMATION	0	0	NE	0	0	NE
OVARY						
PIGMENT	0	0	1	0	0	NE
OVARY						
CYST	0	0	0	0	0	NE
SKIN AND SUBCUTIS						
ULCERATION	0	0	1	0	0	NE
VAGINA						
CYST	0	0	0	0	0	NE
VAGINA						
CHRONIC INFLAMMATION	0	0	1	0	0	NE

SUMMARY OF ORGANS EXAMINED

	TOTAL	CONTROL	V. HIGH	HIGH	MEDIUM
NO. ANIMALS EXAMINED	86	20	20	20	11
LUNG	79	20	19	20	10
BRONCHUS	79	20	19	20	10
HEART	80	20	20	20	10
ARTERY	57	19	19	19	0
KIDNEY	81	20	20	20	10
BILE DUCT	84	20	20	20	10
LIVER	84	20	20	20	10
SPLEEN	80	20	20	20	10
BRAIN	60	20	20	20	0
MENINGES	60	20	20	20	0
STOMACH	75	19	18	20	9
COLON	80	20	20	20	10
INTESTINE	80	20	20	20	10
PANCREAS	80	20	20	20	10
ISLET	80	20	20	20	10
ADRENAL CORTEX	80	20	20	20	10
ADRENAL MEDULLA	80	20	20	20	10
PITUITARY	78	19	20	19	10
THYROID	80	20	20	20	10
PARATHYROID	30	2	12	8	6
LYMPH NODE	75	17	19	19	10
SALIVARY GLAND	59	19	20	20	0
THYMUS	59	20	20	19	0
TESTIS	40	10	10	10	5
SEMINAL VESICLE	40	10	10	10	5
PROSTATE	40	10	10	10	5
BLADDER	78	20	19	20	10
OVARY	40	10	10	10	5
UTERUS	40	10	10	10	5
OVIDUCT	4	1	2	1	0
BONE	60	20	20	20	0
BONE MARROW	60	20	20	20	0
MUSCLE	60	20	20	20	0
SKIN AND SUBCUTIS	80	20	20	20	10
MAMMARY GLAND	76	20	17	19	10
EYE	63	20	20	20	2
VAGINA	39	9	10	10	5
NERVE	60	20	20	20	0
TOTALS	2460	655	664	664	237

SUMMARY OF ORGANS EXAMINED

	TOTAL	LOW
NO. ANIMALS EXAMINED	86	15
LUNG	79	10
BRONCHUS	79	10
HEART	80	10
ARTERY	57	0
KIDNEY	81	11
BILE DUCT	84	14
LIVER	84	14
SPLEEN	80	10
BRAIN	60	0
MENINGES	60	0
STOMACH	75	9
COLON	80	10
INTESTINE	80	10
PANCREAS	80	10
ISLET	80	10
ADRENAL CORTEX	80	10
ADRENAL MEDULLA	80	10
PITUITARY	78	10
THYROID	80	10
PARATHYROID	30	2
LYMPH NODE	75	10
SALIVARY GLAND	59	0
THYMUS	59	0
TESTIS	40	5
SEMINAL VESICLE	40	5
PROSTATE	40	5
BLADDER	78	9
OVARY	40	5
UTERUS	40	5
OVIDUCT	4	0
BONE	60	0
BONE MARROW	60	0
MUSCLE	60	0
SKIN AND SUBCUTIS	80	10
MAMMARY GLAND	76	10
EYE	63	1
VAGINA	39	5
NERVE	60	0
TOTALS	2460	240

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

PAGE 1

1-5-72

G. D. SEARLE & CO.

PROJECT P-T NO. 972S71
GROUP CONTROL

THE SPECIES TESTED WAS RAT

NO. 1000

U.S. ARCO BUSINESS FORMS, ARCO, INC.

1-5-72

PATHOLOGY NUMBER 90092

ANIMAL NUMBER A10CM

MALE

GROUP

CONTROL

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

PANCREAS

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

ADRENAL CORTX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90083

ANIMAL NUMBER A12CM

MALE

GROUP

CONTROL

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

COLON

PARASITES - PARASITES ARE PRESENT IN THE LUMEN.

COLON

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY
MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90084

ANIMAL NUMBER A17CM

MALE

GROUP

CONTROL

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

COLON

PARASITES - PARASITES ARE PRESENT IN THE LUMEN.

1-5-72

PATHOLOGY NUMBER 90085

ANIMAL NUMBER A18CM

MALE

GROUP

CONTROL

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90087

ANIMAL NUMBER 04CM

MALE

GROUP

CONTROL

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

1-5-72

PATHOLOGY NUMBER 90088

ANIMAL NUMBER C9CM

MALE

GROUP

CONTROL

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

KIDNEY

CALCIFICATION - FOCAL CALCIFICATION IS PRESENT
IN THE TUBULAR EPITHELIUM.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY
MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90089

ANIMAL NUMBER C16CM

MALE

GROUP CONTROL

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

COLON

PARASITES - PARASITES ARE PRESENT IN THE LUMEN.

PANCREAS

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

ADRENAL CORTX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

BLADDER

CALCULUS - CALCAREOUS MATERIAL IS PRESENT IN THE LUMINAL SPACE.

1-5-72

PATHOLOGY NUMBER 90090

ANIMAL NUMBER C18CM

MALE

GROUP

CONTROL

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
THYROID
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
TESTIS

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

1-5-72

PATHOLOGY NUMBER 90091

ANIMAL NUMBER C22CM

MALE

GROUP

CONTROL

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

ADRENAL CORTX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

PROSTATE

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90092

ANIMAL NUMBER 82CF

FEMALE

GROUP

CONTROL

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

1-5-72

PATHOLOGY NUMBER 90093

ANIMAL NUMBER B3CF

FEMALE

GROUP

CONTROL

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MUPTINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

COLON

PARASITES - PARASITES ARE PRESENT IN THE LUMEN.

1-5-72

PATHOLOGY NUMBER 90094

ANIMAL NUMBER B14CF

FEMALE

GROUP

CONTROL

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

COLON

PARASITES - PARASITES ARE PRESENT IN THE LUMEN.

1-5-72

PATHOLOGY NUMBER 90095

ANIMAL NUMBER B17CF

FEMALE

GROUP CONTROL

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

PANCREAS

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90096

ANIMAL NUMBER B23CF

FEMALE

GROUP

CONTROL

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

1-5-72

PATHOLOGY NUMBER 90097

ANIMAL NUMBER D9CF

FEMALE

GROUP

CONTROL

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

MICROSCOPY

UACCO BUSINESS PAPER ADAM, INC.

1-5-72

PATHOLOGY NUMBER 90098

ANIMAL NUMBER D12CF

FEMALE

GROUP

CONTROL

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
PANCREAS
MININGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

KIDNEY

CALCIFICATION - FOCAL CALCIFICATION IS PRESENT
IN THE TUBULAR EPITHELIUM.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

PANCREAS

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90099

ANIMAL NUMBER 018CF

FEMALE

GROUP

CONTROL

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
OVIDUCT
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90100

ANIMAL NUMBER 021CF

FEMALE

GROUP

CONTROL

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CALCIFICATION - FOCAL CALCIFICATION IS PRESENT IN THE TUBULAR EPITHELIUM.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

1-5-72

PATHOLOGY NUMBER 90101

ANIMAL NUMBER D24CF

FEMALE

GROUP

CONTROL

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

KIDNEY

CALCIFICATION - FOCAL CALCIFICATION IS PRESENT IN THE TUBULAR EPITHELIUM.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

NECROSIS - THERE IS A FOCAL LOSS OF NUCLEAR AND CYTOPLASMIC DETAILS WITH DISRUPTION OF BOUNDARIES AND INFLAMMATORY RESPONSE.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

OVARY

CYST - THE FIBROUS WALL IS LINED BY MATURE EPITHELIAL CELLS. THE LUMEN IS FILLED WITH SECRETION.

1-5-72

G. D. SEARLE & CO.

PROJECT P-T NO. 972S71
GROUP V. HIGH

THE SPECIES TESTED WAS RAT

1-5-72

PATHOLOGY NUMBER 90102

ANIMAL NUMBER A7VHM

MALE

GROUP V. HIGH

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

HYPERPLASIA - THERE IS AN INCREASE IN THE NUMBER OF INDIVIDUAL GLANDULAR STRUCTURES.

LIVER

NECROSIS - THERE IS A FOCAL LOSS OF NUCLEAR AND CYTOPLASMIC DETAILS WITH DISRUPTION OF BOUNDARIES AND INFLAMMATORY RESPONSE.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

PANCREAS

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90103

ANIMAL NUMBER A11VHM

MALE

GROUP V. HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90104

ANIMAL NUMBER A13VHM

MALE

GROUP V. HIGH

P-T NO. 972S71

TISSUES EXAMINED

HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

PROSTATE

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90105

ANIMAL NUMBER A16VHM

MALE

GROUP

V. HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

PANCREAS

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

ADRENAL CORTX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90106

ANIMAL NUMBER A24VHM

MALE

GROUP V. HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

PANCREAS

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

1-5-72

PATHOLOGY NUMBER 90107

ANIMAL NUMBER C11VHM

MALE

GROUP V. HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE
PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF
INTERSTITIAL INFLAMMATION AND FIBROSIS.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUULES.

1-5-72

PATHOLOGY NUMBER 90108

ANIMAL NUMBER C13VHM

MALE

GROUP V. HIGH

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

PANCREAS

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90109

ANIMAL NUMBER C14VHM

MALE

GROUP V. HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTX
ADRENAL MEDULLA
PITUITARY
THYROID
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

PANCREAS

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90110

ANIMAL NUMBER C19VHM

MALE

GROUP

V. HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

EDEMA, PULMONARY - THE ALVEOLI CONTAIN PROTEIN-RICH FLUID AND A FEW ERYTHROCYTES.

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

FIBROSIS - THERE IS AN INCREASE IN INTERSTITIAL FIBROUS TISSUE.

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KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

ADRENAL CORTX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

SEMINAL VESICLE

CALCIFICATION - THERE ARE CALCIFIC DEPOSITS.

1-5-72

PATHOLOGY NUMBER 90111

ANIMAL NUMBER C20VHM

MALE

GROUP V. HIGH

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

FIBROSIS - THERE IS AN INCREASE IN INTERSTITIAL FIBROUS TISSUE.

LIVER

VACUOLIZATION - PARENCHYMAL CELLS CONTAIN NUMEROUS SMALL VACUOLES.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

Microfilm
UACD SYSTEMS, INC. ADAM, MASS.

1-5-72

PATHOLOGY NUMBER 90112

ANIMAL NUMBER B1VHF

FEMALE

GROUP V. HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
OVIDUCT
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

HYDRONEPHROSIS - THE PELVIS IS DILATED AND THE ADJACENT PARENCHYMA IS REDUCED.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90113

ANIMAL NUMBER B7VHF

FEMALE

GROUP V. HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

1-5-72

PATHOLOGY NUMBER 90114

ANIMAL NUMBER 88VHF

FEMALE

GROUP V. HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

GRANULOMATOUS INFLAMMATION - THERE IS A FOCAL GRANULOMATOUS PROCESS CHARACTERIZED BY MONONUCLEAR AND MULTI-NUCLEATED CELLULAR INFILTRATION.

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CALCIFICATION - FOCAL CALCIFICATION IS PRESENT IN THE TUBULAR EPITHELIUM.

BILE DUCT

HYPERPLASIA - THERE IS AN INCREASE IN THE NUMBER OF INDIVIDUAL GLANDULAR STRUCTURES.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

NECROSIS - THERE IS A FOCAL LOSS OF NUCLEAR AND CYTOPLASMIC DETAILS WITH DISRUPTION OF BOUNDARIES AND INFLAMMATORY RESPONSE.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

SKIN AND SUBCUTIS

ULCERATION - THE BASE OF THE ULCER IS COMPOSED OF GRANULATION TISSUE COVERED BY FIBRINOUS EXUDATE.

1-5-72

PATHOLOGY NUMBER 90115

ANIMAL NUMBER B19VHF

FEMALE

GROUP V. HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY
MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

1-5-72

PATHOLOGY NUMBER 90116

ANIMAL NUMBER 824VHF

FEMALE

GROUP

V. HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

HYDRONEPHROSIS - THE PELVIS IS DILATED AND THE ADJACENT PARENCHYMA IS REDUCED.

KIDNEY

NECROSIS - THERE IS A FOCAL LOSS OF NUCLEAR AND CYTOPLASMIC DETAILS WITH DISRUPTION OF BOUNDARIES AND INFLAMMATORY RESPONSE.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

1-5-72

PATHOLOGY NUMBER 90117

ANIMAL NUMBER D5VHI

FEMALE

GROUP V. HIGH

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTIX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
OVIDUCT
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90118

ANIMAL NUMBER D10VHF

FEMALE

GROUP V. HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CALCIFICATION - FOCAL CALCIFICATION IS PRESENT IN THE TUBULAR EPITHELIUM.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

PILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

NECROSIS - THERE IS A FOCAL LOSS OF NUCLEAR AND CYTOPLASMIC DETAILS WITH DISRUPTION OF BOUNDARIES AND INFLAMMATORY RESPONSE.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90119

ANIMAL NUMBER 011VHF

FEMALE

GROUP V. HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90120

ANIMAL NUMBER D14VHF

FEMALE

GROUP

V. HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CALCIFICATION - FOCAL CALCIFICATION IS PRESENT IN THE TUBULAR EPITHELIUM.

1-5-72

PATHOLOGY NUMBER 90121

ANIMAL NUMBER D20VHF

FEMALE

GROUP

V. HIGH

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MUrine BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CALCIFICATION - FOCAL CALCIFICATION IS PRESENT IN THE TUBULAR EPITHELIUM.

LIVER

NECROSIS - THERE IS A FOCAL LOSS OF NUCLEAR AND CYTOPLASMIC DETAILS WITH DISRUPTION OF BOUNDARIES AND INFLAMMATORY RESPONSE.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

PANCREAS

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

BLADDER

ACUTE INFLAMMATION - THE LUMEN CONTAINS EXUDATE AND THE MURAL TISSUES ARE EDEMATOUS AND INFILTRATED WITH NEUTROPHILS.

VAGINA

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

1-5-72

G. D. SEARLE & CO.

PROJECT P-T NO. 972S71
GROUP HIGH

THE SPECIES TESTED WAS RAT

1-5-72

PATHOLOGY NUMBER 90122

ANIMAL NUMBER A3HM

MALE

GROUP HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

COLON

PARASITES - PARASITES ARE PRESENT IN THE LUMEN.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

100-100000

UACCO 831 POC 100 800

1-5-72

PATHOLOGY NUMBER 90123

ANIMAL NUMBER A6HM

MALE

GROUP

HIGH

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90124

ANIMAL NUMBER A9HM

MALE

GROUP

HIGH

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTIX
ADRENAL MEDULLA
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SURCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

FIBROSIS - THERE IS AN INCREASE IN INTERSTITIAL FIBROUS TISSUE.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

PROSTATE

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90125

ANIMAL NUMBER A15HM

MALE

GROUP

HIGH

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90126

ANIMAL NUMBER A25HM

MALE

GROUP HIGH

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

ADRENAL CORTX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

PROSTATE

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90127

ANIMAL NUMBER C2HM

MALE

GROUP

HIGH

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

MICRO

11-2 UARCO BUSINESS FORMS - ADAM INC.

1-5-72

PATHOLOGY NUMBER 90128

ANIMAL NUMBER C5HM

MALE

GROUP

HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

BLADDER

CALCULUS - CALCAREOUS MATERIAL IS PRESENT IN THE LUMINAL SPACE.

1-5-72

PATHOLOGY NUMBER 90129

ANIMAL NUMBER C12HM

MALE

GROUP

HIGH

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

ABSCCESS - ABOUT A LOCALIZED COLLECTION OF PUS,
THERE IS CONGESTION AND LEUKOCYTIC INFILTRATION.

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE
PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF
INTERSTITIAL INFLAMMATION AND FIBROSIS.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90130

ANIMAL NUMBER C21HM

MALE

GROUP HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

PROSTATE

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90131

ANIMAL NUMBER C23HM

MALE GROUP HIGH

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

1-5-72

PATHOLOGY NUMBER 90132

ANIMAL NUMBER B15HF

FEMALE GROUP HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BLADDER

HYPERPLASIA, SLIGHT - THE EPITHELIUM IS SLIGHTLY ANCANOTHOTIC WITH A FEW ENLARGED CELLS AND FOCAL METAPLASIA.

1-5-72

PATHOLOGY NUMBER 90133

ANIMAL NUMBER B19HF

FEMALE

GROUP

HIGH

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTIX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

1-5-72

PATHOLOGY NUMBER 90134

ANIMAL NUMBER B20HF

FEMALE

GROUP

HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STRIMA.

1-5-72

PATHOLOGY NUMBER 90135

ANIMAL NUMBER B22HF

FEMALE

GROUP HIGH

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
OVIDUCT
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90136

ANIMAL NUMBER 825HF

FEMALE

GROUP

HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CALCIFICATION - FOCAL CALCIFICATION IS PRESENT IN THE TUBULAR EPITHELIUM.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90137

ANIMAL NUMBER DIHF

FEMALE

GROUP HIGH

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90138

ANIMAL NUMBER D2HF

FEMALE

GROUP HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

PANCREAS

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

ADRENAL CORTX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90139

ANIMAL NUMBER D3HF

FEMALE

GROUP HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

1-5-72

PATHOLOGY NUMBER 90140

ANIMAL NUMBER 07HF

FEMALE

GROUP HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

PANCREAS

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

NDP/1000 8

ALL © UARCO BUSINESS FORMS - ADAMS INC

1-5-72

PATHOLOGY NUMBER 90141

ANIMAL NUMBER D15HF

FEMALE

GROUP HIGH

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
ARTERY
KIDNEY
BILE DUCT
LIVER
SPLEEN
BRAIN
MENINGES
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
SALIVARY GLAND
THYMUS
BLADDER
OVARY
UTERUS
BONE
BONE MARROW
MUSCLE
SKIN AND SUBCUTIS
EYE
VAGINA
NERVE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

VAGINA

CYST - THE FIBROUS WALL IS LINED BY MATURE
EPITHELIAL CELLS. THE LUMEN IS FILLED WITH SECRETION.

1-5-72

G. O. SEARLE & CO.

PROJECT P-T NO. 972S71
GROUP MEDIUM

THE SPECIES TESTED WAS RAT

Microfilm

UAPCO BUSINESS FORMS - LONDON, ENGL.

1-5-72

PATHOLOGY NUMBER 90142

ANIMAL NUMBER A1MM

MALE

GROUP

MEDIUM

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
SKIN AND SUBCUTIS
MAMMARY GLAND
EYE

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC NON-INE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBRIOUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBRIOUS STROMA.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

PANCREAS

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

ADRENAL CORTX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90143

ANIMAL NUMBER A5MM

MALE

GROUP

MEDIUM

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
SKIN AND SUBCUTIS
MAMMARY GLAND

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

1-5-72

PATHOLOGY NUMBER 90144

ANIMAL NUMBER ABMM

MALE

GROUP

MEDIUM

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
SKIN AND SUBCUTIS
MAMMARY GLAND

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

COLON

PARASITES - PARASITES ARE PRESENT IN THE LUMEN.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

PROSTATE

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90145

ANIMAL NUMBER A20MM

MALE

GROUP

MEDIUM

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
SKIN AND SUBCUTIS
MAMMARY GLAND

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

COLON

PARASITES - PARASITES ARE PRESENT IN THE LUMEN.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90146

ANIMAL NUMBER A23MM

MALE

GROUP

MEDIUM

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
TESTIS
SEMINAL VESTICLE
PROSTATE
BLADDER
SKIN AND SUBCUTIS
MAMMARY GLAND

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

NECROSIS - THERE IS A FOCAL LOSS OF NUCLEAR AND CYTOPLASMIC DETAILS WITH DISRUPTION OF BOUNDARIES AND INFLAMMATORY RESPONSE.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

STOMACH

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

COLON

PARASITES - PARASITES ARE PRESENT IN THE LUMEN.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

1-5-72

PATHOLOGY NUMBER 90152

ANIMAL NUMBER B5MF

FEMALE

GROUP

MEDIUM

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
BLADDER
OVARY
UTERUS
SKIN AND SUBCUTIS
MAMMARY GLAND
VAGINA

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

1-5-72

PATHOLOGY NUMBER 90153

ANIMAL NUMBER 86MF

FEMALE

GROUP

MEDIUM

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
BLADDER
OVARY
UTERUS
SKIN AND SUBCUTIS
MAMMARY GLAND
VAGINA

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

1-5-72

PATHOLOGY NUMBER 90154

ANIMAL NUMBER B10MF

FEMALE

GROUP

MEDIUM

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
BLADDER
OVARY
UTERUS
SKIN AND SUBCUTIS
MAMMARY GLAND
VAGINA

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

1-5-72

PATHOLOGY NUMBER 90155

ANIMAL NUMBER B11MF

FEMALE

GROUP

MEDIUM

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
BLADDER
OVARY
UTERUS
SKIN AND SUBCUTIS
MAMMARY GLAND
VAGINA

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CALCIFICATION - FOCAL CALCIFICATION IS PRESENT IN THE TUBULAR EPITHELIUM.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

BLADDER

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY
MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

100-1000

11-0 UNACO AUTOMATIC FORMS ADJUSTABLE

1-5-72

PATHOLOGY NUMBER 40156

ANIMAL NUMBER 315MF

FEMALE

GROUP

MEDIUM

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
BLADDER
OVARY
UTERUS
SKIN AND SUBCUTIS
MAMMARY GLAND
VAGINA

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

KIDNEY

CALCIFICATION - FOCAL CALCIFICATION IS PRESENT
IN THE TUBULAR EPITHELIUM.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY
MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

PANCREAS

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90161

ANIMAL NUMBER D25MF

FEMALE

GROUP

MEDIUM

P-T NO. 972571

TISSUES EXAMINED

EYE

THE ORGAN WAS HISTOLOGICALLY NOT REMARKABLE.

1-5-72

G. O. SEARLE & CO.

PROJECT P-T NO. 972S71
GROUP LOW

THE SPECIES TESTED WAS RAT

NCB/2000/80

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

1-5-72

PATHOLOGY NUMBER 90162

ANIMAL NUMBER A2LM

MALE

GROUP LOW

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
SKIN AND SUBCUTIS
MAMMARY GLAND

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

ABSCESS - ABOUT A LOCALIZED COLLECTION OF PUS,
THERE IS CONGESTION AND LEUKOCYTIC INFILTRATION.

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE
PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF
INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

BILE DUCT

HYPERPLASIA - THERE IS AN INCREASE IN THE NUMBER
OF INDIVIDUAL GLANDULAR STRUCTURES.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY
MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

BLADDER

CALCULUS - CALCAREOUS MATERIAL IS PRESENT IN THE
LUMINAL SPACE.

Micrograph

UNITED BUSINESS FORMS, ADAPTED FROM

1-6-72

PATHOLOGY NUMBER 90163

ANIMAL NUMBER A4LM

MALE

GROUP LOW

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTIX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
SKIN AND SURCUTIS
MAMMARY GLAND

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

KIDNEY

CALCIFICATION - FOCAL CALCIFICATION IS PRESENT IN THE TUBULAR EPITHELIUM.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

NECROSIS - THERE IS A FOCAL LOSS OF NUCLEAR AND CYTOPLASMIC DETAILS WITH DISRUPTION OF BOUNDARIES AND INFLAMMATORY RESPONSE.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

BLADDER

CALCULUS - CALCAREOUS MATERIAL IS PRESENT IN THE LUMINAL SPACE.

MICROSCOPY FOR BIOLOGICAL RESEARCH, LTD.

1-5-72

PATHOLOGY NUMBER 90164

ANIMAL NUMBER A14LM

MALE

GROUP LOW

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
SKIN AND SUBCUTIS
MAMMARY GLAND

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MORINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

PANCREAS

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

THYROID

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

BLADDER

CALCULUS - CALCAREOUS MATERIAL IS PRESENT IN THE
LUMINAL SPACE.

1-5-72

PATHOLOGY NUMBER 90135

ANIMAL NUMBER A19LM

MALE

GROUP LOW

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
SKIN AND SUBCUTIS
MAMMARY GLAND

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

HYPERPLASIA - THERE IS AN INCREASE IN THE NUMBER OF INDIVIDUAL GLANDULAR STRUCTURES.

COLON

PARASITES - PARASITES ARE PRESENT IN THE LUMEN.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

TESTIS

HYPOSPERMIA - THERE IS AN ARREST IN THE NORMAL
SPERMATOGENESIS WITH RELATIVELY FEW MATURE SPERM.

1-5-72

PATHOLOGY NUMBER 90166

ANIMAL NUMBER A22LH

MALE

GROUP LOW

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
TESTIS
SEMINAL VESICLE
PROSTATE
BLADDER
SKIN AND SUBCUTIS
MAMMARY GLAND

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MULTIFOCAL BRONCHITIS - THERE IS MASSIVE
PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF
INTERSTITIAL INFLAMMATION AND FIBROSIS.

LIVER

VASCULIZATION - PARENCHYMAL CELLS CONTAIN
NUMEROUS SMALL VACUOLES.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

COLON

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SUBMUCOSA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND
CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY
IN THE SEPDSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN
VACUOLES.

1-5-72

PATHOLOGY NUMBER 90167

ANIMAL NUMBER C6LM

MALE GROUP LOW

P-T NO. 972571

TISSUES EXAMINED

BILE DUCT
LIVER

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE.

1-5-72

PATHOLOGY NUMBER 90168

ANIMAL NUMBER C8LM

MALE

GROUP LOW

P-T NO. 972S71

TISSUES EXAMINED

BILE DUCT

LIVER

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES
SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN
FIBROUS STROMA.

1-5-72

PATHOLOGY NUMBER 90169

ANIMAL NUMBER C15LM

MALE

GROUP LOW

P-T NO. 972571

TISSUES EXAMINED

BILE DUCT
LIVER

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE.

1-5-72

PATHOLOGY NUMBER 90170

ANIMAL NUMBER C17LM

MALE

GROUP LOW

P-T NO. 972S71

TISSUES EXAMINED

KIDNEY
BILE DUCT
LIVER

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

KIDNEY

GLOMERULOSCLEROSIS - MANY OF THE NEPHRONS SHOW
HYALINIZATION OF THE GLOMERULI WITH CYSTIC DILATATION
OF TUBULES AND LYMPHOID INFILTRATE.

KIDNEY

PIGMENT - GRANULAR BROWN PIGMENT IS PRESENT IN AND
ADJACENT TO A FEW TUBULES.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY
MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

1-5-72

PATHOLOGY NUMBER 90173

ANIMAL NUMBER 89LF

FEMALE

GROUP LOW

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
PARATHYROID
LYMPH NODE
BLADDER
OVARY
UTERUS
SKIN AND SUBCUTIS
MAMMARY GLAND
VAGINA

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

KIDNEY

HYDRONEPHROSIS - THE PELVIS IS DILATED AND THE ADJACENT PARENCHYMA IS REDUCED.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

ADRENAL CORTEX

VACUOLIZATION, SLIGHT - PARENCHYMAL CELLS CONTAIN VACUOLES.

1-5-72

PATHOLOGY NUMBER 90174

ANIMAL NUMBER B12LF

FEMALE

GROUP LOW

P-T NO. 972S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
OVARY
UTERUS
SKIN AND SUBCUTIS
MAMMARY GLAND
VAGINA

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

KIDNEY

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

LIVER

CHRONIC INFLAMMATION - THE INTERSTITIAL TISSUES SHOW INFILTRATION BY MONONUCLEAR CELLS AND INCREASE IN FIBROUS STROMA.

OVARY

PIGMENT - THERE IS A SMALL FOCAL COLLECTION OF BROWN-BLACK GRANULES.

SKIN AND SUBCUTIS

ULCERATION - THE BASE OF THE ULCER IS COMPOSED OF GRANULATION TISSUE COVERED BY FIBRINOUS EXUDATE.

VAGINA

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

1-5-72

PATHOLOGY NUMBER 90175

ANIMAL NUMBER 613LF

FEMALE

GROUP LOW

P-T NO. 472S71

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
BLADDER
OVARY
UTERUS
SKIN AND SUBCUTIS
MAMMARY GLAND
VAGINA

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

HEART

FIBROSIS - THERE IS AN INCREASE IN INTERSTITIAL FIBROUS TISSUE.

KIDNEY

HYDRONEPHROSIS - THE PELVIS IS DILATED AND THE ADJACENT PARENCHYMA IS REDUCED.

BILE DUCT

CHRONIC INFLAMMATION - THERE IS INFILTRATION BY MONONUCLEAR CELLS IN THE MUCOSA AND SUBMUCOSA.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

1-5-72

PATHOLOGY NUMBER 90176

ANIMAL NUMBER B21LF

FEMALE

GROUP LOW

P-T NO. 972571

TISSUES EXAMINED

LUNG
BRONCHUS
HEART
KIDNEY
BILE DUCT
LIVER
SPLEEN
STOMACH
COLON
INTESTINE
PANCREAS
ISLET
ADRENAL CORTEX
ADRENAL MEDULLA
PITUITARY
THYROID
LYMPH NODE
BLADDER
OVARY
UTERUS
SKIN AND SUBCUTIS
MAMMARY GLAND
VAGINA

ALL ORGANS WERE HISTOLOGICALLY NOT REMARKABLE, EXCEPT

LUNG

CHRONIC MURINE BRONCHITIS - THERE IS MASSIVE PERIBRONCHIAL LYMPHOCYTIC INFILTRATE AND PATCHY FOCI OF INTERSTITIAL INFLAMMATION AND FIBROSIS.

INTESTINE

CRYSTALLINE DEPOSITS - GRAY-BLUE AMORPHOUS AND CRYSTALLINE MATERIAL IS PRESENT IN THE WALL, CHIEFLY IN THE SEROSA.

1-5-72

PATHOLOGY NUMBER 90181

ANIMAL NUMBER D23LF

FEMALE GROUP LOW

P-T NO. 972571

TISSUES EXAMINED

EYE

THE ORGAN WAS HISTOLOGICALLY NOT REMARKABLE.

