C Number:	MG96005
Lock Date:	Not Entered.
Cage Range:	All
Date Range:	All
Reasons For Removal:	All
Removal Date Range:	All
Treatment Groups:	All
Study Gender:	Both
PWG Approval Date	NONE

CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Disposition Summary						
Animals Initially In Study	**54**	**50**	**50**	**50**	**50**	**50**
Early Deaths						
Moribund	**6**	**5**	**6**	**12**	**7**	**10**
Natural Death	**9**	**3**		**6**	**7**	**5**
Survivors						
Moribund	**2**		**1**		**2**	**1**
Natural Death	**1**	**1**		**1**		**2**
Terminal Sacrifice	**36**	**41**	**43**	**31**	**34**	**32**
Animals Examined Microscopically	**54**	**50**	**50**	**50**	**50**	**50**
ALIMENTARY SYSTEM						
Esophagus	(53)	(50)	(50)	(50)	(50)	(47)
Dilatation				1 (2%)		
Hyperkeratosis	4 (8%)	1 (2%)		7 (14%)	2 (4%)	1 (2%)
Intestine Large, Cecum	(44)	(46)	(50)	(46)	(45)	(42)
Autolysis				1 (2%)		
Hyperplasia, Lymphoid	2 (5%)		1 (2%)	1 (2%)		1 (2%)
Polyarteritis		1 (2%)		1 (2%)		
Intestine Large, Colon	(46)	(46)	(50)	(46)	(45)	(43)
Autolysis				1 (2%)		
Hyperplasia, Lymphoid	1 (2%)		1 (2%)	1 (2%)		
Inflammation, Suppurative						
Polyarteritis				1 (2%)		
Intestine Large, Rectum	(37)	(42)	(43)	(34)	(37)	(33)
Intestine Small, Duodenum	(46)	(45)	(50)	(46)	(45)	(43)
Autolysis				1 (2%)		
Hemorrhage				1 (2%)		
Inflammation, Suppurative				1 (2%)		
Necrosis				1 (2%)		

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

CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Serosa, Polyarteritis	1 (2%)					
Intestine Small, Ileum	(43)	(47)	(50)	(44)	(44)	(42)
Autolysis			1 (2%)			
Hyperplasia, Lymphoid	1 (2%)	1 (2%)	1 (2%)			
Polyarteritis		1 (2%)		1 (2%)		
Intestine Small, Jejunum	(44)	(45)	(50)	(43)	(42)	(42)
Autolysis			1 (2%)			
Hyperplasia, Lymphoid	2 (5%)		1 (2%)			
Polyarteritis		1 (2%)		1 (2%)		
Liver	(51)	(48)	(50)	(48)	(49)	(47)
Adventitia, Hemorrhage				1 (2%)		
Angiectasis	2 (4%)	7 (15%)	3 (6%)	2 (4%)	4 (8%)	4 (9%)
Autolysis	3 (6%)			3 (6%)	2 (4%)	1 (2%)
Basophilic Focus	3 (6%)	5 (10%)	4 (8%)	5 (10%)	2 (4%)	4 (9%)
Basophilic Focus, Multiple		2 (4%)		1 (2%)		
Bile Duct, Hyperplasia	17 (33%)	13 (27%)	9 (18%)	19 (40%)	14 (29%)	8 (17%)
Biliar Tract, Fibrosis	7 (14%)	13 (27%)	7 (14%)	16 (33%)	12 (24%)	9 (19%)
Capsule, Fibrosis	1 (2%)		1 (2%)	1 (2%)		
Capsule, Hemorrhage		1 (2%)				
Capsule, Inflammation, Chronic			1 (2%)			
Cholangiofibrosis			1 (2%)			
Clear Cell Focus	1 (2%)	1 (2%)				
Clear Cell Focus, Multiple		1 (2%)		1 (2%)	1 (2%)	1 (2%)
Cyst			2 (4%)	1 (2%)		1 (2%)
Degeneration, Cystic	2 (4%)	6 (13%)	4 (8%)	1 (2%)	3 (6%)	3 (6%)
Developmental Malformation	1 (2%)	1 (2%)			1 (2%)	
Eosinophilic Focus	1 (2%)	1 (2%)	2 (4%)			3 (6%)
Eosinophilic Focus, Multiple	3 (6%)	4 (8%)		1 (2%)	2 (4%)	1 (2%)
Fatty Change					1 (2%)	
Granuloma, Multiple			1 (2%)			

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

CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Hematopoietic Cell Proliferation	1 (2%)					1 (2%)
Hemorrhage	1 (2%)	2 (4%)		1 (2%)		
Hepatodiaphragmatic Nodule	2 (4%)	1 (2%)		3 (6%)		2 (4%)
Infiltration Cellular, Lymphocyte	8 (16%)	2 (4%)	2 (4%)	8 (17%)	1 (2%)	3 (6%)
Inflammation, Chronic Active	9 (18%)	7 (15%)	6 (12%)	6 (13%)	6 (12%)	9 (19%)
Mineralization	1 (2%)					
Mixed Cell Focus						
Necrosis	3 (6%)		3 (6%)	3 (6%)		3 (6%)
Pigmentation		1 (2%)				
Polyarteritis		1 (2%)		1 (2%)		
Tension Lipidosis	2 (4%)	1 (2%)		1 (2%)	1 (2%)	1 (2%)
Vacuolization Cytoplasmic	5 (10%)	4 (8%)	6 (12%)	2 (4%)	3 (6%)	5 (11%)
Mesentery	(1)	(1)	(0)	(1)	(1)	(1)
Fat, Inflammation, Chronic						
Fat, Necrosis	1 (100%)	1 (100%)		1 (100%)	1 (100%)	1 (100%)
Oral Mucosa	(0)	(0)	(0)	(1)	(0)	(0)
Pancreas	(50)	(49)	(50)	(49)	(49)	(46)
Accessory Spleen						1 (2%)
Acinar Cell, Degeneration	33 (66%)	33 (67%)	34 (68%)	27 (55%)	32 (65%)	33 (72%)
Acinar Cell, Hyperplasia		1 (2%)	1 (2%)	1 (2%)		
Adventitia, Polyarteritis						1 (2%)
Autolysis	3 (6%)			3 (6%)	2 (4%)	1 (2%)
Basophilic Focus	1 (2%)		2 (4%)			
Infiltration Cellular, Lymphocyte	1 (2%)		1 (2%)	2 (4%)		
Inflammation, Chronic				1 (2%)		2 (4%)
Inflammation, Chronic Active	3 (6%)					1 (2%)
Inflammation, Granulomatous	1 (2%)					
Pigmentation	2 (4%)	1 (2%)			1 (2%)	2 (4%)
Polyarteritis		1 (2%)		1 (2%)		
Salivary Glands	(49)	(49)	(50)	(47)	(49)	(46)

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

CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Acinar Cell, Hyperplasia				1 (2%)	1 (2%)	
Atrophy					1 (2%)	
Hyperplasia, Lymphoid					1 (2%)	
Mineralization			1 (2%)			
Stomach, Forestomach	(45)	(46)	(50)	(46)	(47)	(45)
Cyst, Squamous	1 (2%)					
Epithelium, Hyperplasia			1 (2%)			
Hyperkeratosis		1 (2%)				
Hyperplasia	1 (2%)	2 (4%)				
Inflammation, Chronic Active	1 (2%)					
Keratin Cyst			1 (2%)			
Polyarteritis				1 (2%)		
Submucosa, Edema					1 (2%)	
Ulcer		1 (2%)				
Stomach, Glandular	(45)	(47)	(50)	(44)	(46)	(44)
Epithelium, Hyperplasia		1 (2%)				
Polyarteritis				1 (2%)		
CARDIOVASCULAR SYSTEM						
Blood Vessel	(53)	(50)	(50)	(50)	(50)	(48)
Polyarteritis		1 (2%)				
Thrombosis		1 (2%)				
Heart	(52)	(50)	(50)	(50)	(48)	(48)
Autolysis	1 (2%)			1 (2%)		1 (2%)
Bacterium						
Cardiomyopathy	13 (25%)	30 (60%)	29 (58%)	21 (42%)	23 (48%)	27 (56%)
Endocardium, Hyperplasia						1 (2%)
Endocardium, Inflammation, Chronic Active						1 (2%)
Epicardium, Hyperplasia	1 (2%)					
Inflammation, Suppurative						
Metaplasia, Osseous	1 (2%)		5 (10%)		2 (4%)	

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

CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Mineralization	1 (2%)					
Myocardium, Necrosis						
Polyarteritis		1 (2%)		2 (4%)	1 (2%)	
Thrombosis						1 (2%)
ENDOCRINE SYSTEM						
Adrenal Cortex	(49)	(47)	(50)	(48)	(47)	(46)
Accessory Adrenal Cortical Nodule	2 (4%)	2 (4%)		3 (6%)		3 (7%)
Angiectasis	1 (2%)		1 (2%)	2 (4%)	2 (4%)	
Atrophy			3 (6%)			
Autolysis					1 (2%)	
Bilateral, Hyperplasia		1 (2%)				
Capsule, Fibrosis			1 (2%)		1 (2%)	
Cyst		1 (2%)		1 (2%)		
Degeneration, Cystic	3 (6%)	1 (2%)	2 (4%)	2 (4%)	1 (2%)	6 (13%)
Hyperplasia	2 (4%)	7 (15%)	2 (4%)	2 (4%)	5 (11%)	3 (7%)
Hypertrophy	2 (4%)	7 (15%)	8 (16%)	3 (6%)	6 (13%)	7 (15%)
Infiltration Cellular, Lymphocyte			1 (2%)			
Metaplasia, Osseous						1 (2%)
Pigmentation			1 (2%)	1 (2%)		
Vacuolization Cytoplasmic	14 (29%)	25 (53%)	36 (72%)	13 (27%)	26 (55%)	22 (48%)
Adrenal Medulla	(47)	(49)	(50)	(49)	(47)	(46)
Bilateral, Hyperplasia	2 (4%)	2 (4%)	2 (4%)	1 (2%)		1 (2%)
Cyst	1 (2%)					
Hemorrhage						
Hyperplasia	6 (13%)	8 (16%)	11 (22%)	5 (10%)	6 (13%)	5 (11%)
Hyperplasia, Focal		1 (2%)				
Infiltration Cellular, Lymphocyte						1 (2%)
Vacuolization Cytoplasmic						1 (2%)
Islets, Pancreatic	(49)	(49)	(50)	(49)	(49)	(46)
Autolysis						

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CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Hyperplasia	23 (47%)	23 (47%)	18 (36%)	21 (43%)	19 (39%)	15 (33%)
Parathyroid Gland	(47)	(47)	(47)	(47)	(48)	(47)
Bilateral, Hyperplasia	2 (4%)	5 (11%)	2 (4%)		1 (2%)	2 (4%)
Hyperplasia	3 (6%)	6 (13%)	8 (17%)	2 (4%)	9 (19%)	8 (17%)
Pituitary Gland	(49)	(46)	(50)	(49)	(49)	(48)
Autolysis				1 (2%)	2 (4%)	3 (6%)
Pars Distalis, Cyst	3 (6%)	6 (13%)	6 (12%)	5 (10%)	6 (12%)	3 (6%)
Pars Distalis, Cyst, Multiple	1 (2%)	2 (4%)	2 (4%)	1 (2%)	1 (2%)	1 (2%)
Pars Distalis, Hyperplasia	13 (27%)	17 (37%)	11 (22%)	13 (27%)	19 (39%)	19 (40%)
Pars Intermed, Cyst			1 (2%)			
Pars Intermed, Cyst, Multiple	1 (2%)	1 (2%)				
Pars Intermed, Hyperplasia						1 (2%)
Thyroid Gland	(49)	(47)	(50)	(46)	(46)	(44)
Autolysis	1 (2%)			1 (2%)		
C Cell, Hyperplasia	7 (14%)	1 (2%)	1 (2%)	9 (20%)	2 (4%)	
Cyst, Squamous	7 (14%)	8 (17%)	4 (8%)	3 (7%)	2 (4%)	4 (9%)
Follicular Cel, Cyst					2 (4%)	
Follicular Cel, Hyperplasia					1 (2%)	
Infiltration Cellular, Lymphocyte	2 (4%)					
Inflammation, Chronic	1 (2%)					
Polyarteritis		1 (2%)				
Vacuolization Cytoplasmic						2 (5%)
GENERAL BODY SYSTEM						
Tissue NOS	(0)	(0)	(1)	(1)	(0)	(0)
GENITAL SYSTEM						
Coagulating Gland	(47)	(49)	(50)	(45)	(45)	(45)
Adventitia, Polyarteritis		1 (2%)				
Atrophy	2 (4%)		2 (4%)	2 (4%)	3 (7%)	3 (7%)
Autolysis		1 (2%)			1 (2%)	

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

CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Concretion		1 (2%)				
Degeneration	1 (2%)					
Developmental Malformation	4 (9%)	4 (8%)	4 (8%)	4 (9%)	2 (4%)	4 (9%)
Dilatation			1 (2%)			
Hyperplasia	1 (2%)				1 (2%)	
Infiltration Cellular, Lymphocyte				1 (2%)		
Inflammation, Suppurative						1 (2%)
Interstitium, Inflammation, Chronic		1 (2%)				
Epididymis	(51)	(48)	(50)	(49)	(50)	(47)
Adventitia, Polyarteritis		1 (2%)				
Atrophy	1 (2%)					
Autolysis	1 (2%)					
Degeneration	2 (4%)	4 (8%)	5 (10%)	7 (14%)	1 (2%)	5 (11%)
Granuloma Sperm		1 (2%)				
Hypospermia	7 (14%)	4 (8%)	6 (12%)	4 (8%)	1 (2%)	7 (15%)
Infiltration Cellular, Lymphocyte	4 (8%)	5 (10%)	1 (2%)	2 (4%)	1 (2%)	4 (9%)
Inflammation, Chronic Active			1 (2%)			
Inflammation, Suppurative						1 (2%)
Polyarteritis			1 (2%)	1 (2%)		
Penis	(0)	(1)	(0)	(0)	(1)	(0)
Concretion		1 (100%)			1 (100%)	
Hemorrhage					1 (100%)	
Preputial Gland	(49)	(48)	(49)	(49)	(50)	(48)
Abscess			1 (2%)	3 (6%)	1 (2%)	1 (2%)
Atrophy	1 (2%)				2 (4%)	1 (2%)
Autolysis	1 (2%)	1 (2%)		1 (2%)		1 (2%)
Cyst		1 (2%)				
Duct, Dilatation	4 (8%)	4 (8%)	7 (14%)	5 (10%)	8 (16%)	3 (6%)
Foreign Body			1 (2%)			
Infiltration Cellular, Lymphocyte	21 (43%)	21 (44%)	21 (43%)	10 (20%)	15 (30%)	16 (33%)

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CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Inflammation, Chronic						1 (2%)
Inflammation, Chronic Active						
Inflammation, Suppurative	15 (31%)	16 (33%)	21 (43%)	22 (45%)	20 (40%)	22 (46%)
Keratin Cyst				1 (2%)		
Necrosis			1 (2%)			
Parenchym Cell, Degeneration	16 (33%)	20 (42%)	27 (55%)	18 (37%)	21 (42%)	23 (48%)
Prostate	(8)	(9)	(2)	(2)	(8)	(6)
Prostate, Dorsal Lobe	(48)	(49)	(50)	(49)	(49)	(50)
Autolysis		1 (2%)		1 (2%)	2 (4%)	4 (8%)
Cyst			2 (4%)			
Degeneration	2 (4%)		4 (8%)	2 (4%)	1 (2%)	2 (4%)
Hyperplasia		1 (2%)				
Infiltration Cellular, Lymphocyte	2 (4%)	4 (8%)	2 (4%)		1 (2%)	2 (4%)
Inflammation, Suppurative	31 (65%)	31 (63%)	43 (86%)	41 (84%)	34 (69%)	40 (80%)
Interstitium, Fibrosis		1 (2%)				
Polyarteritis		1 (2%)		2 (4%)		
Prostate, Ventral Lobe	(48)	(49)	(50)	(48)	(49)	(48)
Autolysis				1 (2%)	3 (6%)	2 (4%)
Degeneration	13 (27%)	9 (18%)	13 (26%)	7 (15%)	5 (10%)	5 (10%)
Hyperplasia	7 (15%)	4 (8%)	8 (16%)	9 (19%)	9 (18%)	4 (8%)
Infiltration Cellular, Lymphocyte	7 (15%)	4 (8%)	6 (12%)	4 (8%)	6 (12%)	4 (8%)
Inflammation				1 (2%)		
Inflammation, Suppurative	6 (13%)	7 (14%)	6 (12%)	4 (8%)	6 (12%)	10 (21%)
Interstitium, Fibrosis		1 (2%)		1 (2%)		
Polyarteritis				1 (2%)		
Rete Testes	(44)	(47)	(47)	(44)	(50)	(46)
Dilatation	3 (7%)		3 (6%)	3 (7%)	3 (6%)	3 (7%)
Fibrosis	1 (2%)	1 (2%)	2 (4%)	1 (2%)		1 (2%)
Spermatocele			1 (2%)			
Seminal Vesicle	(47)	(48)	(50)	(45)	(43)	(45)

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CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Atrophy	3 (6%)	4 (8%)	5 (10%)	5 (11%)	2 (5%)	3 (7%)
Autolysis	1 (2%)	1 (2%)				1 (2%)
Dilatation		2 (4%)	2 (4%)	2 (4%)	1 (2%)	1 (2%)
Fibrosis			1 (2%)			
Hyperplasia		3 (6%)	1 (2%)			1 (2%)
Inflammation, Chronic			1 (2%)		1 (2%)	
Inflammation, Chronic Active						1 (2%)
Inflammation, Suppurative		1 (2%)				1 (2%)
Testes	(50)	(50)	(50)	(49)	(49)	(47)
Artery, Mineralization				1 (2%)		
Autolysis	1 (2%)			1 (2%)		4 (9%)
Interstit Cell, Hyperplasia	1 (2%)					
Polyarteritis	2 (4%)			1 (2%)	1 (2%)	1 (2%)
Seminif Tub, Degeneration	31 (62%)	26 (52%)	26 (52%)	17 (35%)	32 (65%)	23 (49%)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(49)	(49)	(50)	(48)	(48)	(47)
Autolysis	1 (2%)	1 (2%)				1 (2%)
Erythroid Cell, Hyperplasia		2 (4%)	1 (2%)	4 (8%)	1 (2%)	1 (2%)
Hypocellularity	2 (4%)	1 (2%)	2 (4%)	3 (6%)		1 (2%)
Myeloid Cell, Hyperplasia	3 (6%)	2 (4%)	3 (6%)	8 (17%)	3 (6%)	4 (9%)
Lymph Node	(15)	(13)	(16)	(8)	(14)	(14)
Adventitia, Pancreatic, Polyarteritis	1 (7%)					
Adventitia, Renal, Hemorrhage	1 (7%)					
Deep Cervical, Autolysis	1 (7%)					
Degeneration, Cystic		1 (8%)				
Infiltration Cellular, Plasma Cell		1 (8%)				
Inguinal, Hyperplasia, Lymphoid			1 (6%)			2 (14%)
Inguinal, Infiltration Cellular, Plasma Cell			2 (13%)			2 (14%)
Lumbar, Autolysis	1 (7%)					
Lumbar, Degeneration, Cystic	6 (40%)	4 (31%)	7 (44%)	4 (50%)	9 (64%)	7 (50%)

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CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Lumbar, Hemorrhage	1 (7%)					
Lumbar, Hyperplasia, Lymphoid	3 (20%)	3 (23%)	4 (25%)		1 (7%)	7 (50%)
Lumbar, Infiltration Cellular, Plasma Cell	7 (47%)	5 (38%)	9 (56%)	4 (50%)	6 (43%)	10 (71%)
Mediastinal, Hemorrhage						
Mediastinal, Hyperplasia, Lymphoid					1 (7%)	
Mediastinal, Infiltration Cellular, Plasma Cell	1 (7%)	1 (8%)	1 (6%)			
Pancreatic, Hemorrhage						1 (7%)
Pancreatic, Hyperplasia, Lymphoid	1 (7%)	3 (23%)	1 (6%)	1 (13%)	1 (7%)	
Pancreatic, Infiltration Cellular, Plasma Cell			1 (6%)	2 (25%)		1 (7%)
Pancreatic, Inflammation, Granulomatous	1 (7%)	1 (8%)			1 (7%)	
Pancreatic, Pigmentation						1 (7%)
Popliteal, Degeneration, Cystic					1 (7%)	
Popliteal, Hyperplasia, Lymphoid		1 (8%)	1 (6%)		2 (14%)	
Popliteal, Infiltration Cellular, Plasma Cell		1 (8%)	1 (6%)	1 (13%)	2 (14%)	
Renal, Autolysis	1 (7%)					
Renal, Degeneration, Cystic					1 (7%)	2 (14%)
Renal, Fibrosis						1 (7%)
Renal, Hyperplasia, Lymphoid			1 (6%)		1 (7%)	1 (7%)
Renal, Infiltration Cellular, Plasma Cell			1 (6%)		1 (7%)	2 (14%)
Renal, Pigmentation	1 (7%)					
Lymph Node, Mandibular	(52)	(50)	(49)	(46)	(49)	(45)
Autolysis	3 (6%)	1 (2%)		1 (2%)		
Degeneration, Cystic	7 (13%)	4 (8%)	9 (18%)	7 (15%)	6 (12%)	4 (9%)
Hemorrhage				1 (2%)		
Hyperplasia, Lymphoid	23 (44%)	12 (24%)	13 (27%)	19 (41%)	17 (35%)	11 (24%)
Infiltration Cellular, Plasma Cell	30 (58%)	21 (42%)	31 (63%)	33 (72%)	28 (57%)	21 (47%)
Pigmentation				1 (2%)		
Lymph Node, Mesenteric	(48)	(50)	(50)	(46)	(47)	(45)
Autolysis		2 (4%)		1 (2%)	1 (2%)	
Degeneration, Cystic	3 (6%)	4 (8%)	1 (2%)	6 (13%)	1 (2%)	2 (4%)

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

CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Hemorrhage			1 (2%)	1 (2%)		
Hyperplasia, Lymphoid	14 (29%)	6 (12%)	8 (16%)	11 (24%)	7 (15%)	4 (9%)
Infiltration Cellular, Mast Cell	2 (4%)			2 (4%)	2 (4%)	
Infiltration Cellular, Plasma Cell	3 (6%)	4 (8%)	2 (4%)	4 (9%)	1 (2%)	2 (4%)
Inflammation, Granulomatous	14 (29%)	17 (34%)	27 (54%)	17 (37%)	22 (47%)	22 (49%)
Pigmentation	1 (2%)					1 (2%)
Polyarteritis		1 (2%)		2 (4%)		
Spleen	(52)	(48)	(50)	(48)	(50)	(47)
Accessory Spleen	1 (2%)					
Adventitia, Polyarteritis				1 (2%)		
Autolysis	3 (6%)			3 (6%)	2 (4%)	3 (6%)
Capsule, Fibrosis	1 (2%)			1 (2%)		
Depletion Lymphoid			1 (2%)	2 (4%)		1 (2%)
Hematopoietic Cell Proliferation	8 (15%)	12 (25%)	8 (16%)	9 (19%)	12 (24%)	13 (28%)
Hematopoietic Cell Proliferation Erythrocytic						
Hyperplasia, Lymphoid	2 (4%)	1 (2%)	3 (6%)	3 (6%)	3 (6%)	2 (4%)
Hyperplasia, Stromal				1 (2%)		
Inflammation, Chronic Active						1 (2%)
Necrosis						1 (2%)
Pigmentation	30 (58%)	30 (63%)	24 (48%)	31 (65%)	35 (70%)	27 (57%)
Red Pulp, Hyperplasia			1 (2%)			
Thymus	(42)	(44)	(45)	(42)	(47)	(40)
Adventitia, Polyarteritis		1 (2%)				
Atrophy	36 (86%)	41 (93%)	43 (96%)	39 (93%)	41 (87%)	38 (95%)
Autolysis		1 (2%)		1 (2%)	1 (2%)	1 (3%)
Epithel Cell, Hyperplasia					2 (4%)	
Hemorrhage				1 (2%)		
Hyperplasia, Lymphoid	1 (2%)				1 (2%)	
INTEGUMENTARY SYSTEM						
Mammary Gland	(41)	(43)	(40)	(42)	(42)	(34)

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

CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Alveolus, Hyperplasia	3 (7%)	2 (5%)	6 (15%)	8 (19%)	1 (2%)	1 (3%)
Autolysis	1 (2%)					
Degeneration	21 (51%)	24 (56%)	12 (30%)	14 (33%)	17 (40%)	18 (53%)
Duct, Dilatation	1 (2%)	2 (5%)	3 (8%)	3 (7%)	2 (5%)	1 (3%)
Galactocele		1 (2%)	1 (3%)			
Hemorrhage		1 (2%)				
Hyperplasia, Mast Cell						
Infiltration Cellular, Mast Cell						1 (3%)
Inflammation, Chronic						
Inflammation, Granulomatous		1 (2%)				
Inflammation, Suppurative		1 (2%)				
Lactation	3 (7%)	1 (2%)	3 (8%)	7 (17%)	3 (7%)	3 (9%)
Skin	(51)	(49)	(50)	(50)	(50)	(50)
Abscess	1 (2%)	1 (2%)	1 (2%)	1 (2%)		
Angiectasis			1 (2%)	1 (2%)		
Autolysis	1 (2%)					
Cyst		1 (2%)				
Cyst Epithelial Inclusion	2 (4%)		2 (4%)	2 (4%)	3 (6%)	
Dermis, Fibrosis						
Epidermis, Hyperplasia	5 (10%)	2 (4%)	2 (4%)	1 (2%)	6 (12%)	
Epidermis, Ulcer	1 (2%)					
Fibrosis	1 (2%)	1 (2%)				1 (2%)
Foreign Body				1 (2%)		1 (2%)
Hemorrhage		1 (2%)	1 (2%)			1 (2%)
Hyperkeratosis	5 (10%)	2 (4%)	2 (4%)	1 (2%)	6 (12%)	
Inflammation, Chronic	2 (4%)	1 (2%)	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Inflammation, Chronic Active	7 (14%)	8 (16%)	7 (14%)	5 (10%)	7 (14%)	10 (20%)
Inflammation, Granulomatous						1 (2%)
Inflammation, Pyogranulomat	1 (2%)			1 (2%)		
Inflammation, Suppurative	22 (43%)	21 (43%)	29 (58%)	19 (38%)	21 (42%)	24 (48%)

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

CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Necrosis	4 (8%)	2 (4%)	1 (2%)	4 (8%)	3 (6%)	3 (6%)
MUSCULOSKELETAL SYSTEM						
Bone, Cranium	(0)	(0)	(0)	(0)	(0)	(1)
Bone, Femur	(53)	(50)	(50)	(50)	(49)	(50)
Hyperostosis	1 (2%)					
Necrosis			1 (2%)			
Skeletal Muscle	(0)	(0)	(0)	(1)	(0)	(0)
Cyst						
Fibrosis						
NERVOUS SYSTEM						
Brain, Brain Stem	(50)	(48)	(50)	(48)	(50)	(48)
Autolysis	1 (2%)				1 (2%)	1 (2%)
Compression	7 (14%)	3 (6%)	5 (10%)	5 (10%)	4 (8%)	4 (8%)
Cyst						1 (2%)
Gliosis					1 (2%)	
Hemorrhage	1 (2%)			1 (2%)	1 (2%)	1 (2%)
Brain, Cerebellum	(50)	(48)	(50)	(47)	(49)	(48)
Autolysis	1 (2%)				1 (2%)	
Gliosis	1 (2%)					
Hemorrhage	1 (2%)			2 (4%)	1 (2%)	
Hydrocephalus	1 (2%)	1 (2%)	1 (2%)		2 (4%)	1 (2%)
Brain, Cerebrum	(50)	(48)	(50)	(48)	(50)	(48)
Autolysis	1 (2%)				1 (2%)	
Compression						1 (2%)
Developmental Malformation						1 (2%)
Ectopic Tissue						1 (2%)
Gliosis						1 (2%)
Hemorrhage				1 (2%)	2 (4%)	1 (2%)
Hydrocephalus	3 (6%)	1 (2%)	1 (2%)	3 (6%)	2 (4%)	3 (6%)

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

CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Infiltration Cellular, Lymphocyte				1 (2%)		
Meninges, Congestion	1 (2%)					
Meninges, Fibrosis						
Meninges, Hemorrhage	1 (2%)					
Mineralization				1 (2%)		1 (2%)
RESPIRATORY SYSTEM						
Lung	(49)	(47)	(50)	(47)	(48)	(44)
Alveolar Epith, Hyperplasia	3 (6%)	3 (6%)	5 (10%)	1 (2%)	3 (6%)	2 (5%)
Artery, Mineralization	3 (6%)	6 (13%)	8 (16%)	9 (19%)	5 (10%)	3 (7%)
Autolysis	1 (2%)			2 (4%)	1 (2%)	
Congestion						
Cyst	1 (2%)					
Edema	1 (2%)					
Hemorrhage	3 (6%)		1 (2%)			1 (2%)
Infiltration Cellular, Histiocyte	15 (31%)	19 (40%)	20 (40%)	16 (34%)	21 (44%)	14 (32%)
Infiltration Cellular, Histiocytic		1 (2%)			1 (2%)	
Infiltration Cellular, Lymphocyte	1 (2%)		1 (2%)		1 (2%)	
Inflammation, Chronic		1 (2%)			1 (2%)	
Inflammation, Suppurative				1 (2%)		
Metaplasia, Osseous	2 (4%)	3 (6%)	6 (12%)	3 (6%)	3 (6%)	4 (9%)
Peribronchial, Hyperplasia, Lymphoid				1 (2%)		
Pigmentation				1 (2%)		
Pleura, Fibrosis			1 (2%)			
Pleura, Hyperplasia			1 (2%)			
Pleura, Inflammation, Chronic			1 (2%)			
Polyarteritis				2 (4%)		
Nose	(48)	(48)	(50)	(48)	(47)	(45)
Autolysis	1 (2%)			1 (2%)	1 (2%)	
Cyst						
Foreign Body			1 (2%)		1 (2%)	1 (2%)

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

CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Fungus					1 (2%)	
Hemorrhage	1 (2%)					
Hyperkeratosis	1 (2%)					
Inflammation, Chronic Active	1 (2%)	1 (2%)	1 (2%)		3 (6%)	3 (7%)
Inflammation, Suppurative	3 (6%)	1 (2%)	4 (8%)	4 (8%)	5 (11%)	8 (18%)
Keratin Cyst	1 (2%)			1 (2%)		1 (2%)
Metaplasia, Osseous				1 (2%)		
Necrosis					2 (4%)	
Squam Epithel, Hyperplasia	2 (4%)					
Squam Epithel, Metaplasia	1 (2%)					
Ulcer	1 (2%)					
Upper Molar, Inflammation, Chronic Active	2 (4%)			2 (4%)	2 (4%)	
Trachea	(47)	(47)	(50)	(46)	(47)	(46)
Cyst, Squamous						
Epithelium, Hyperplasia				1 (2%)		
SPECIAL SENSES SYSTEM						
Ear	(0)	(0)	(0)	(0)	(0)	(0)
Eye	(37)	(42)	(43)	(35)	(37)	(33)
Antr Chamber, Hemorrhage						1 (3%)
Antr Chamber, Inflammation, Suppurative						1 (3%)
Bilateral, Retina, Atrophy	6 (16%)	4 (10%)	10 (23%)	6 (17%)	5 (14%)	4 (12%)
Cataract				2 (6%)	1 (3%)	
Cornea, Degeneration						1 (3%)
Cornea, Inflammation, Suppurative						1 (3%)
Cornea, Ulcer						1 (3%)
Inflammation, Chronic	1 (3%)					
Inflammation, Chronic Active				1 (3%)		
Inflammation, Suppurative				1 (3%)		
Retina, Atrophy	5 (14%)	2 (5%)	1 (2%)	1 (3%)	2 (5%)	
Harderian Gland	(39)	(42)	(43)	(37)	(39)	(33)

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

CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Degeneration	1 (3%)	2 (5%)	1 (2%)	1 (3%)	1 (3%)	
Epithelium, Hyperplasia					1 (3%)	
Infiltration Cellular, Lymphocyte	5 (13%)	5 (12%)	3 (7%)	4 (11%)	1 (3%)	3 (9%)
Inflammation, Chronic					1 (3%)	
Pigmentation				1 (3%)		
Lacrimal Gland	(10)	(9)	(10)	(14)	(14)	(12)
Degeneration					1 (7%)	1 (8%)
Ectopic Harderian	10 (100%)	9 (100%)	10 (100%)	14 (100%)	13 (93%)	12 (100%)
Infiltration Cellular, Lymphocyte					1 (7%)	1 (8%)
Inflammation, Chronic Active					1 (7%)	
Zymbal's Gland	(0)	(1)	(0)	(1)	(0)	(1)
Inflammation, Suppurative						1 (100%)
URINARY SYSTEM						
Kidney	(48)	(48)	(50)	(48)	(48)	(46)
Accumulation, Hyaline Droplet	1 (2%)			1 (2%)		1 (2%)
Autolysis	1 (2%)	1 (2%)		4 (8%)	3 (6%)	3 (7%)
Bacterium		1 (2%)				
Capsule, Fatty Change		1 (2%)	3 (6%)	2 (4%)	2 (4%)	4 (9%)
Capsule, Fibrosis		1 (2%)				
Congestion	1 (2%)				1 (2%)	
Cortex, Cyst	24 (50%)	26 (54%)	22 (44%)	29 (60%)	27 (56%)	22 (48%)
Fatty Change			1 (2%)			
Fibrosis				1 (2%)	1 (2%)	1 (2%)
Hyperplasia, Tubular	1 (2%)		2 (4%)			
Infiltration Cellular, Lymphocyte			2 (4%)	5 (10%)	2 (4%)	2 (4%)
Inflammation, Chronic	1 (2%)	1 (2%)		1 (2%)	1 (2%)	1 (2%)
Inflammation, Chronic Active						1 (2%)
Inflammation, Suppurative		1 (2%)				
Medulla, Cyst	1 (2%)					
Mineralization			1 (2%)			

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

Experiment Number: 99930-94
Test Type: SPECIAL STUDY
Route: DOSED FEED
Species/Strain: Rat/CD

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a)
Test Compound: Endocrine disruptor (Genistein)
CAS Number: 446-72-0

Date Report Requested: 10/22/2014
Time Report Requested: 17:27:25
First Dose M/F: NA / NA
Lab: NCTR

CD Rat MALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Nephropathy, Chronic	41 (85%)	41 (85%)	40 (80%)	37 (77%)	39 (81%)	38 (83%)
Pelvis, Dilatation	2 (4%)			1 (2%)	1 (2%)	3 (7%)
Pelvis, Hyperplasia	5 (10%)	4 (8%)	6 (12%)	2 (4%)	4 (8%)	5 (11%)
Pelvis, Inflammation, Suppurative					1 (2%)	2 (4%)
Pelvis, Mineralization		1 (2%)	1 (2%)		1 (2%)	
Polyarteritis				1 (2%)		
Polycystic Kidney					1 (2%)	
Renal Tubule, Dilatation	3 (6%)			2 (4%)	1 (2%)	
Renal Tubule, Inflammation, Suppurative	1 (2%)		1 (2%)	1 (2%)		1 (2%)
Renal Tubule, Mineralization	1 (2%)			4 (8%)		1 (2%)
Urethra	(0)	(0)	(1)	(1)	(1)	(1)
Congestion						1 (100%)
Urinary Bladder	(47)	(48)	(50)	(46)	(48)	(46)
Autolysis				1 (2%)	1 (2%)	1 (2%)
Dilatation		1 (2%)	1 (2%)			1 (2%)
Hemorrhage	1 (2%)			2 (4%)		1 (2%)
Inflammation, Chronic Active					1 (2%)	
Transit Epithe, Hyperplasia					1 (2%)	

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

CD Rat MALE	F1 500PPM/CTL
Disposition Summary	
Animals Initially In Study	**50**
Early Deaths	
Moribund	**5**
Natural Death	**7**
Survivors	
Moribund	
Natural Death	
Terminal Sacrifice	**38**
Animals Examined Microscopically	**50**
ALIMENTARY SYSTEM	
Esophagus	(49)
Dilatation	
Hyperkeratosis	3 (6%)
Intestine Large, Cecum	(44)
Autolysis	
Hyperplasia, Lymphoid	2 (5%)
Polyarteritis	
Intestine Large, Colon	(46)
Autolysis	1 (2%)
Hyperplasia, Lymphoid	2 (4%)
Inflammation, Suppurative	1 (2%)
Polyarteritis	1 (2%)
Intestine Large, Rectum	(39)
Intestine Small, Duodenum	(45)
Autolysis	
Hemorrhage	
Inflammation, Suppurative	
Necrosis	

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

CD Rat MALE	F1 500PPM/CTL
Serosa, Polyarteritis	
Intestine Small, Ileum	(43)
Autolysis	
Hyperplasia, Lymphoid	2 (5%)
Polyarteritis	
Intestine Small, Jejunum	(42)
Autolysis	
Hyperplasia, Lymphoid	
Polyarteritis	
Liver	(48)
Adventitia, Hemorrhage	
Angiectasis	7 (15%)
Autolysis	
Basophilic Focus	1 (2%)
Basophilic Focus, Multiple	
Bile Duct, Hyperplasia	13 (27%)
Biliar Tract, Fibrosis	9 (19%)
Capsule, Fibrosis	1 (2%)
Capsule, Hemorrhage	
Capsule, Inflammation, Chronic	
Cholangiofibrosis	
Clear Cell Focus	
Clear Cell Focus, Multiple	
Cyst	1 (2%)
Degeneration, Cystic	2 (4%)
Developmental Malformation	
Eosinophilic Focus	1 (2%)
Eosinophilic Focus, Multiple	2 (4%)
Fatty Change	
Granuloma, Multiple	

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

CD Rat MALE	F1 500PPM/CTL
Hematopoietic Cell Proliferation	2 (4%)
Hemorrhage	1 (2%)
Hepatodiaphragmatic Nodule	2 (4%)
Infiltration Cellular, Lymphocyte	7 (15%)
Inflammation, Chronic Active	10 (21%)
Mineralization	
Mixed Cell Focus	1 (2%)
Necrosis	4 (8%)
Pigmentation	
Polyarteritis	
Tension Lipidosis	
Vacuolization Cytoplasmic	4 (8%)
Mesentery	(1)
Fat, Inflammation, Chronic	1 (100%)
Fat, Necrosis	
Oral Mucosa	(0)
Pancreas	(48)
Accessory Spleen	
Acinar Cell, Degeneration	30 (63%)
Acinar Cell, Hyperplasia	
Adventitia, Polyarteritis	
Autolysis	2 (4%)
Basophilic Focus	
Infiltration Cellular, Lymphocyte	
Inflammation, Chronic	
Inflammation, Chronic Active	
Inflammation, Granulomatous	
Pigmentation	2 (4%)
Polyarteritis	1 (2%)
Salivary Glands	(50)

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

CD Rat MALE	F1 500PPM/CTL
Acinar Cell, Hyperplasia	
Atrophy	
Hyperplasia, Lymphoid	
Mineralization	
Stomach, Forestomach	(49)
Cyst, Squamous	
Epithelium, Hyperplasia	
Hyperkeratosis	
Hyperplasia	
Inflammation, Chronic Active	
Keratin Cyst	
Polyarteritis	
Submucosa, Edema	
Ulcer	
Stomach, Glandular	(45)
Epithelium, Hyperplasia	
Polyarteritis	
CARDIOVASCULAR SYSTEM	
Blood Vessel	(49)
Polyarteritis	
Thrombosis	
Heart	(50)
Autolysis	
Bacterium	1 (2%)
Cardiomyopathy	16 (32%)
Endocardium, Hyperplasia	
Endocardium, Inflammation, Chronic Active	
Epicardium, Hyperplasia	
Inflammation, Suppurative	1 (2%)
Metaplasia, Osseous	

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

CD Rat MALE	F1 500PPM/CTL
Mineralization	
Myocardium, Necrosis	1 (2%)
Polyarteritis	
Thrombosis	1 (2%)
ENDOCRINE SYSTEM	
Adrenal Cortex	(46)
Accessory Adrenal Cortical Nodule	1 (2%)
Angiectasis	1 (2%)
Atrophy	1 (2%)
Autolysis	
Bilateral, Hyperplasia	
Capsule, Fibrosis	
Cyst	
Degeneration, Cystic	7 (15%)
Hyperplasia	1 (2%)
Hypertrophy	3 (7%)
Infiltration Cellular, Lymphocyte	
Metaplasia, Osseous	
Pigmentation	1 (2%)
Vacuolization Cytoplasmic	17 (37%)
Adrenal Medulla	(45)
Bilateral, Hyperplasia	
Cyst	
Hemorrhage	1 (2%)
Hyperplasia	2 (4%)
Hyperplasia, Focal	
Infiltration Cellular, Lymphocyte	
Vacuolization Cytoplasmic	
Islets, Pancreatic	(48)
Autolysis	1 (2%)

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

CD Rat MALE	F1 500PPM/CTL
Hyperplasia	23 (48%)
Parathyroid Gland	(46)
Bilateral, Hyperplasia	
Hyperplasia	6 (13%)
Pituitary Gland	(48)
Autolysis	
Pars Distalis, Cyst	4 (8%)
Pars Distalis, Cyst, Multiple	1 (2%)
Pars Distalis, Hyperplasia	20 (42%)
Pars Intermed, Cyst	
Pars Intermed, Cyst, Multiple	
Pars Intermed, Hyperplasia	
Thyroid Gland	(48)
Autolysis	
C Cell, Hyperplasia	5 (10%)
Cyst, Squamous	2 (4%)
Follicular Cel, Cyst	
Follicular Cel, Hyperplasia	
Infiltration Cellular, Lymphocyte	
Inflammation, Chronic	
Polyarteritis	
Vacuolization Cytoplasmic	
GENERAL BODY SYSTEM	
Tissue NOS	(0)
GENITAL SYSTEM	
Coagulating Gland	(47)
Adventitia, Polyarteritis	
Atrophy	5 (11%)
Autolysis	1 (2%)

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

CD Rat MALE	F1 500PPM/CTL
Concretion	
Degeneration	1 (2%)
Developmental Malformation	2 (4%)
Dilatation	
Hyperplasia	
Infiltration Cellular, Lymphocyte	
Inflammation, Suppurative	2 (4%)
Interstitium, Inflammation, Chronic	
Epididymis	(49)
Adventitia, Polyarteritis	
Atrophy	1 (2%)
Autolysis	
Degeneration	5 (10%)
Granuloma Sperm	1 (2%)
Hypospermia	4 (8%)
Infiltration Cellular, Lymphocyte	1 (2%)
Inflammation, Chronic Active	
Inflammation, Suppurative	
Polyarteritis	1 (2%)
Penis	(0)
Concretion	
Hemorrhage	
Preputial Gland	(49)
Abscess	1 (2%)
Atrophy	1 (2%)
Autolysis	
Cyst	
Duct, Dilatation	6 (12%)
Foreign Body	
Infiltration Cellular, Lymphocyte	15 (31%)

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

CD Rat MALE	F1 500PPM/CTL
Inflammation, Chronic	
Inflammation, Chronic Active	2 (4%)
Inflammation, Suppurative	16 (33%)
Keratin Cyst	
Necrosis	
Parenchym Cell, Degeneration	16 (33%)
Prostate	(3)
Prostate, Dorsal Lobe	(49)
Autolysis	2 (4%)
Cyst	2 (4%)
Degeneration	1 (2%)
Hyperplasia	
Infiltration Cellular, Lymphocyte	1 (2%)
Inflammation, Suppurative	40 (82%)
Interstitium, Fibrosis	
Polyarteritis	
Prostate, Ventral Lobe	(48)
Autolysis	2 (4%)
Degeneration	9 (19%)
Hyperplasia	11 (23%)
Infiltration Cellular, Lymphocyte	4 (8%)
Inflammation	
Inflammation, Suppurative	7 (15%)
Interstitium, Fibrosis	
Polyarteritis	
Rete Testes	(49)
Dilatation	3 (6%)
Fibrosis	
Spermatocele	
Seminal Vesicle	(47)

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

CD Rat MALE	F1 500PPM/CTL
Atrophy	9 (19%)
Autolysis	1 (2%)
Dilatation	1 (2%)
Fibrosis	
Hyperplasia	1 (2%)
Inflammation, Chronic	
Inflammation, Chronic Active	
Inflammation, Suppurative	1 (2%)
Testes	(50)
Artery, Mineralization	
Autolysis	
Interstit Cell, Hyperplasia	1 (2%)
Polyarteritis	1 (2%)
Seminif Tub, Degeneration	26 (52%)
HEMATOPOIETIC SYSTEM	
Bone Marrow	(49)
Autolysis	
Erythroid Cell, Hyperplasia	3 (6%)
Hypocellularity	2 (4%)
Myeloid Cell, Hyperplasia	3 (6%)
Lymph Node	(9)
Adventitia, Pancreatic, Polyarteritis	
Adventitia, Renal, Hemorrhage	
Deep Cervical, Autolysis	
Degeneration, Cystic	
Infiltration Cellular, Plasma Cell	1 (11%)
Inguinal, Hyperplasia, Lymphoid	
Inguinal, Infiltration Cellular, Plasma Cell	
Lumbar, Autolysis	
Lumbar, Degeneration, Cystic	3 (33%)

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

CD Rat MALE	F1 500PPM/CTL
Lumbar, Hemorrhage	
Lumbar, Hyperplasia, Lymphoid	
Lumbar, Infiltration Cellular, Plasma Cell	5 (56%)
Mediastinal, Hemorrhage	1 (11%)
Mediastinal, Hyperplasia, Lymphoid	
Mediastinal, Infiltration Cellular, Plasma Cell	
Pancreatic, Hemorrhage	
Pancreatic, Hyperplasia, Lymphoid	
Pancreatic, Infiltration Cellular, Plasma Cell	
Pancreatic, Inflammation, Granulomatous	
Pancreatic, Pigmentation	
Popliteal, Degeneration, Cystic	
Popliteal, Hyperplasia, Lymphoid	
Popliteal, Infiltration Cellular, Plasma Cell	
Renal, Autolysis	
Renal, Degeneration, Cystic	1 (11%)
Renal, Fibrosis	
Renal, Hyperplasia, Lymphoid	
Renal, Infiltration Cellular, Plasma Cell	1 (11%)
Renal, Pigmentation	
Lymph Node, Mandibular	(48)
Autolysis	
Degeneration, Cystic	6 (13%)
Hemorrhage	
Hyperplasia, Lymphoid	20 (42%)
Infiltration Cellular, Plasma Cell	28 (58%)
Pigmentation	
Lymph Node, Mesenteric	(46)
Autolysis	
Degeneration, Cystic	4 (9%)

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

CD Rat MALE	F1 500PPM/CTL
Hemorrhage	1 (2%)
Hyperplasia, Lymphoid	14 (30%)
Infiltration Cellular, Mast Cell	5 (11%)
Infiltration Cellular, Plasma Cell	3 (7%)
Inflammation, Granulomatous	16 (35%)
Pigmentation	1 (2%)
Polyarteritis	
Spleen	(49)
Accessory Spleen	
Adventitia, Polyarteritis	
Autolysis	
Capsule, Fibrosis	
Depletion Lymphoid	3 (6%)
Hematopoietic Cell Proliferation	11 (22%)
Hematopoietic Cell Proliferation Erythrocytic	1 (2%)
Hyperplasia, Lymphoid	2 (4%)
Hyperplasia, Stromal	1 (2%)
Inflammation, Chronic Active	
Necrosis	
Pigmentation	28 (57%)
Red Pulp, Hyperplasia	
Thymus	(45)
Adventitia, Polyarteritis	
Atrophy	44 (98%)
Autolysis	
Epithel Cell, Hyperplasia	
Hemorrhage	
Hyperplasia, Lymphoid	
INTEGUMENTARY SYSTEM	
Mammary Gland	(45)

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

CD Rat MALE	F1 500PPM/CTL
Alveolus, Hyperplasia	9 (20%)
Autolysis	
Degeneration	20 (44%)
Duct, Dilatation	1 (2%)
Galactocele	1 (2%)
Hemorrhage	
Hyperplasia, Mast Cell	1 (2%)
Infiltration Cellular, Mast Cell	
Inflammation, Chronic	1 (2%)
Inflammation, Granulomatous	
Inflammation, Suppurative	
Lactation	3 (7%)
Skin	(50)
Abscess	
Angiectasis	
Autolysis	
Cyst	
Cyst Epithelial Inclusion	2 (4%)
Dermis, Fibrosis	1 (2%)
Epidermis, Hyperplasia	2 (4%)
Epidermis, Ulcer	
Fibrosis	
Foreign Body	
Hemorrhage	1 (2%)
Hyperkeratosis	3 (6%)
Inflammation, Chronic	1 (2%)
Inflammation, Chronic Active	6 (12%)
Inflammation, Granulomatous	
Inflammation, Pyogranulomat	
Inflammation, Suppurative	22 (44%)

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

CD Rat MALE	F1 500PPM/CTL
Necrosis	6 (12%)
MUSCULOSKELETAL SYSTEM	
Bone, Cranium	(0)
Bone, Femur	(50)
Hyperostosis	
Necrosis	
Skeletal Muscle	(2)
Cyst	1 (50%)
Fibrosis	1 (50%)
NERVOUS SYSTEM	
Brain, Brain Stem	(48)
Autolysis	
Compression	2 (4%)
Cyst	
Gliosis	
Hemorrhage	
Brain, Cerebellum	(48)
Autolysis	
Gliosis	
Hemorrhage	
Hydrocephalus	
Brain, Cerebrum	(48)
Autolysis	
Compression	
Developmental Malformation	
Ectopic Tissue	
Gliosis	
Hemorrhage	
Hydrocephalus	1 (2%)

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

CD Rat MALE	F1 500PPM/CTL
Infiltration Cellular, Lymphocyte	
Meninges, Congestion	
Meninges, Fibrosis	1 (2%)
Meninges, Hemorrhage	
Mineralization	
RESPIRATORY SYSTEM	
Lung	(49)
Alveolar Epith, Hyperplasia	2 (4%)
Artery, Mineralization	5 (10%)
Autolysis	3 (6%)
Congestion	1 (2%)
Cyst	
Edema	
Hemorrhage	2 (4%)
Infiltration Cellular, Histiocyte	21 (43%)
Infiltration Cellular, Histiocytic	
Infiltration Cellular, Lymphocyte	
Inflammation, Chronic	
Inflammation, Suppurative	
Metaplasia, Osseous	3 (6%)
Peribronchial, Hyperplasia, Lymphoid	
Pigmentation	
Pleura, Fibrosis	
Pleura, Hyperplasia	
Pleura, Inflammation, Chronic	
Polyarteritis	
Nose	(48)
Autolysis	
Cyst	1 (2%)
Foreign Body	

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

CD Rat MALE	F1 500PPM/CTL
Fungus	
Hemorrhage	
Hyperkeratosis	
Inflammation, Chronic Active	
Inflammation, Suppurative	1 (2%)
Keratin Cyst	
Metaplasia, Osseous	
Necrosis	
Squam Epithel, Hyperplasia	
Squam Epithel, Metaplasia	
Ulcer	
Upper Molar, Inflammation, Chronic Active	
Trachea	(48)
Cyst, Squamous	1 (2%)
Epithelium, Hyperplasia	
SPECIAL SENSES SYSTEM	
Ear	(1)
Eye	(40)
Antr Chamber, Hemorrhage	
Antr Chamber, Inflammation, Suppurative	
Bilateral, Retina, Atrophy	1 (3%)
Cataract	
Cornea, Degeneration	
Cornea, Inflammation, Suppurative	
Cornea, Ulcer	
Inflammation, Chronic	
Inflammation, Chronic Active	
Inflammation, Suppurative	1 (3%)
Retina, Atrophy	1 (3%)
Harderian Gland	(41)

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

CD Rat MALE	F1 500PPM/CTL
Degeneration	1 (2%)
Epithelium, Hyperplasia	
Infiltration Cellular, Lymphocyte	6 (15%)
Inflammation, Chronic	
Pigmentation	
Lacrimal Gland	(5)
Degeneration	
Ectopic Harderian	5 (100%)
Infiltration Cellular, Lymphocyte	
Inflammation, Chronic Active	
Zymbal's Gland	(0)
Inflammation, Suppurative	
URINARY SYSTEM	
Kidney	(49)
Accumulation, Hyaline Droplet	
Autolysis	3 (6%)
Bacterium	
Capsule, Fatty Change	3 (6%)
Capsule, Fibrosis	
Congestion	
Cortex, Cyst	24 (49%)
Fatty Change	
Fibrosis	1 (2%)
Hyperplasia, Tubular	
Infiltration Cellular, Lymphocyte	3 (6%)
Inflammation, Chronic	
Inflammation, Chronic Active	
Inflammation, Suppurative	
Medulla, Cyst	
Mineralization	

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

CD Rat MALE	F1 500PPM/CTL
Nephropathy, Chronic	40 (82%)
Pelvis, Dilatation	1 (2%)
Pelvis, Hyperplasia	4 (8%)
Pelvis, Inflammation, Suppurative	
Pelvis, Mineralization	
Polyarteritis	
Polycystic Kidney	
Renal Tubule, Dilatation	
Renal Tubule, Inflammation, Suppurative	1 (2%)
Renal Tubule, Mineralization	2 (4%)
Urethra	(2)
Congestion	
Urinary Bladder	(47)
Autolysis	
Dilatation	2 (4%)
Hemorrhage	
Inflammation, Chronic Active	
Transit Epithe, Hyperplasia	

END OF MALE DATA

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

CD Rat FEMALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Disposition Summary						
Animals Initially In Study	**54**	**50**	**50**	**49**	**50**	**50**
Early Deaths						
Moribund	**24**	**14**	**18**	**20**	**12**	**14**
Natural Death	**3**	**7**	**6**	**6**	**6**	**3**
Survivors						
Moribund	**1**		**3**	**1**		
Natural Death		**1**	**1**	**1**	**1**	**1**
Terminal Sacrifice	**26**	**28**	**22**	**21**	**31**	**32**
Animals Examined Microscopically	**54**	**50**	**50**	**49**	**50**	**50**
ALIMENTARY SYSTEM						
Esophagus	(54)	(50)	(49)	(49)	(50)	(50)
Lumen, Dilatation				1 (2%)		
Intestine Large	(0)	(0)	(0)	(0)	(0)	(1)
Intestine Large, Cecum	(54)	(50)	(50)	(49)	(49)	(50)
Inflammation					2 (4%)	
Intestine Large, Colon	(54)	(50)	(50)	(49)	(50)	(49)
Intestine Large, Rectum	(30)	(32)	(30)	(24)	(33)	(36)
Intestine Small	(0)	(0)	(0)	(0)	(0)	(1)
Hyperplasia, Lymphoid						1 (100%)
Intestine Small, Duodenum	(53)	(50)	(48)	(48)	(50)	(50)
Intestine Small, Ileum	(53)	(49)	(47)	(45)	(49)	(48)
Intestine Small, Jejunum	(54)	(49)	(47)	(45)	(49)	(48)
Inflammation				1 (2%)		
Liver	(54)	(50)	(50)	(49)	(50)	(50)
Angiectasis		1 (2%)	4 (8%)	2 (4%)	6 (12%)	4 (8%)
Atypical Cells				1 (2%)		
Basophilic Focus	4 (7%)	7 (14%)	3 (6%)	7 (14%)	5 (10%)	7 (14%)
Bile Duct, Hyperplasia	22 (41%)	13 (26%)	15 (30%)	10 (20%)	15 (30%)	18 (36%)

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

CD Rat FEMALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Biliar Tract, Fibrosis	4 (7%)	1 (2%)	4 (8%)	1 (2%)	6 (12%)	
Clear Cell Focus	1 (2%)					
Congestion		1 (2%)				
Cyst			1 (2%)	2 (4%)	1 (2%)	1 (2%)
Degeneration, Cystic	1 (2%)		2 (4%)			1 (2%)
Developmental Malformation		2 (4%)	1 (2%)			2 (4%)
Eosinophilic Focus		4 (8%)	4 (8%)	2 (4%)	2 (4%)	1 (2%)
Fibrosis					1 (2%)	
Hematopoietic Cell Proliferation	6 (11%)	1 (2%)	2 (4%)	4 (8%)	2 (4%)	1 (2%)
Hepatodiaphragmatic Nodule	1 (2%)	1 (2%)		1 (2%)		
Infiltration Cellular, Lymphocyte	2 (4%)		4 (8%)	2 (4%)	4 (8%)	
Inflammation, Chronic Active	4 (7%)	3 (6%)	3 (6%)	2 (4%)	1 (2%)	4 (8%)
Mixed Cell Focus		1 (2%)		1 (2%)		
Necrosis	1 (2%)	2 (4%)				2 (4%)
Polyarteritis	1 (2%)					
Tension Lipidosis	1 (2%)	1 (2%)			1 (2%)	
Vacuolization Cytoplasmic	5 (9%)	3 (6%)	10 (20%)	2 (4%)	8 (16%)	2 (4%)
Vacuolization Cytoplasmic, Focal		2 (4%)		2 (4%)	3 (6%)	3 (6%)
Mesentery	(1)	(2)	(1)	(2)	(2)	(0)
Fat, Necrosis		1 (50%)	1 (100%)	2 (100%)	2 (100%)	
Pancreas	(54)	(50)	(50)	(48)	(50)	(50)
Acinar Cell, Degeneration	21 (39%)	13 (26%)	20 (40%)	9 (19%)	18 (36%)	11 (22%)
Acinar Cell, Hyperplasia		1 (2%)			1 (2%)	
Inflammation						
Polyarteritis					1 (2%)	
Salivary Glands	(54)	(50)	(50)	(49)	(50)	(50)
Atrophy	1 (2%)					
Parotid Gl, Inflammation				1 (2%)		
Submandibul Gl, Inflammation			1 (2%)			1 (2%)
Stomach, Forestomach	(54)	(50)	(50)	(49)	(49)	(49)

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

CD Rat FEMALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Diverticulum					1 (2%)	
Hyperplasia	3 (6%)		1 (2%)		2 (4%)	1 (2%)
Inflammation		1 (2%)			1 (2%)	
Keratin Cyst			1 (2%)			
Ulcer	1 (2%)		1 (2%)	2 (4%)	1 (2%)	1 (2%)
Stomach, Glandular	(54)	(50)	(50)	(49)	(50)	(50)
Erosion			1 (2%)	1 (2%)		
Tongue	(0)	(0)	(0)	(0)	(1)	(0)
CARDIOVASCULAR SYSTEM						
Blood Vessel	(53)	(50)	(50)	(49)	(50)	(50)
Mineralization		1 (2%)	1 (2%)			
Heart	(54)	(50)	(50)	(49)	(50)	(50)
Atrium Rgt, Dilatation		1 (2%)				
Cardiomyopathy	26 (48%)	30 (60%)	24 (48%)	26 (53%)	23 (46%)	26 (52%)
Inflammation				1 (2%)		
Mineralization			1 (2%)			
ENDOCRINE SYSTEM						
Adrenal Cortex	(54)	(50)	(50)	(49)	(50)	(50)
Accessory Adrenal Cortical Nodule				1 (2%)		
Angiectasis	3 (6%)	1 (2%)	3 (6%)	5 (10%)		1 (2%)
Atrophy		1 (2%)	1 (2%)	1 (2%)		
Degeneration, Cystic	45 (83%)	45 (90%)	42 (84%)	42 (86%)	46 (92%)	45 (90%)
Hematopoietic Cell Proliferation	1 (2%)	1 (2%)	1 (2%)			
Hyperplasia	11 (20%)	18 (36%)	16 (32%)	9 (18%)	12 (24%)	15 (30%)
Hypertrophy	16 (30%)	16 (32%)	18 (36%)	14 (29%)	28 (56%)	18 (36%)
Infarct				1 (2%)		
Vacuolization Cytoplasmic				1 (2%)	2 (4%)	
Adrenal Medulla	(54)	(48)	(50)	(48)	(48)	(50)
Hyperplasia, Diffuse			1 (2%)			1 (2%)

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

CD Rat FEMALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Hyperplasia, Focal	3 (6%)	3 (6%)	7 (14%)	2 (4%)	7 (15%)	5 (10%)
Infiltration Cellular, Eosinophil		1 (2%)				
Islets, Pancreatic	(54)	(50)	(50)	(48)	(50)	(50)
Hyperplasia		1 (2%)	2 (4%)		2 (4%)	
Parathyroid Gland	(46)	(46)	(46)	(44)	(47)	(42)
Hyperplasia, Diffuse	1 (2%)					
Hyperplasia, Focal	2 (4%)	2 (4%)	1 (2%)	1 (2%)	2 (4%)	1 (2%)
Pituitary Gland	(54)	(50)	(50)	(49)	(49)	(50)
Angiectasis	1 (2%)					
Cyst	1 (2%)	2 (4%)	1 (2%)		2 (4%)	1 (2%)
Infiltration Cellular, Histiocyte			1 (2%)			
Pars Distalis, Hyperplasia	5 (9%)	6 (12%)	13 (26%)	1 (2%)	6 (12%)	6 (12%)
Thyroid Gland	(54)	(50)	(49)	(49)	(50)	(50)
C Cell, Hyperplasia	3 (6%)	1 (2%)	3 (6%)	3 (6%)	2 (4%)	1 (2%)
Cyst, Squamous	5 (9%)	4 (8%)	9 (18%)	5 (10%)	7 (14%)	7 (14%)
Follicular Cel, Atrophy		2 (4%)				1 (2%)
Follicular Cel, Hyperplasia		1 (2%)				
GENERAL BODY SYSTEM						
Tissue NOS	(0)	(0)	(0)	(0)	(0)	(0)
GENITAL SYSTEM						
Clitoral Gland	(51)	(49)	(49)	(49)	(49)	(49)
Duct, Dilatation	7 (14%)	9 (18%)	8 (16%)	6 (12%)	6 (12%)	7 (14%)
Hyperplasia	2 (4%)	3 (6%)	1 (2%)	1 (2%)		3 (6%)
Inflammation	32 (63%)	28 (57%)	21 (43%)	23 (47%)	24 (49%)	29 (59%)
Parenchym Cell, Degeneration	5 (10%)	3 (6%)	1 (2%)	6 (12%)	1 (2%)	2 (4%)
Ovary	(54)	(50)	(50)	(49)	(50)	(49)
Angiectasis			2 (4%)			
Atrophy	34 (63%)	32 (64%)	29 (58%)	40 (82%)	24 (48%)	28 (57%)
Cyst	11 (20%)	12 (24%)	14 (28%)	13 (27%)	9 (18%)	16 (33%)

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

CD Rat FEMALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Granulosa Cell, Hyperplasia						2 (4%)
Hyperplasia, Stromal	25 (46%)	19 (38%)	30 (60%)	19 (39%)	25 (50%)	21 (43%)
Serosa, Hyperplasia						
Oviduct	(54)	(50)	(49)	(49)	(50)	(49)
Uterus	(54)	(50)	(50)	(49)	(50)	(49)
Angiectasis			2 (4%)	1 (2%)		
Atrophy			1 (2%)			
Cervix, Muscularis, Hypertrophy	1 (2%)	1 (2%)	2 (4%)			
Hemorrhage		1 (2%)				
Hyperplasia, Cystic	16 (30%)	24 (48%)	16 (32%)	24 (49%)	15 (30%)	26 (53%)
Hyperplasia, Focal				1 (2%)		
Inflammation	1 (2%)					
Metaplasia	4 (7%)	5 (10%)	8 (16%)	5 (10%)	1 (2%)	5 (10%)
Necrosis			1 (2%)			
Vagina	(54)	(50)	(50)	(48)	(49)	(48)
Developmental Malformation				1 (2%)		
Hyperplasia				1 (2%)		
Inflammation	4 (7%)	3 (6%)	5 (10%)	7 (15%)	3 (6%)	2 (4%)
Keratin Cyst	2 (4%)					
HEMATOPOIETIC SYSTEM						
Bone Marrow	(54)	(50)	(50)	(48)	(50)	(50)
Hypocellularity	2 (4%)	1 (2%)	2 (4%)	2 (4%)	1 (2%)	
Myeloid Cell, Hyperplasia				2 (4%)		
Lymph Node	(11)	(10)	(12)	(5)	(9)	(10)
Axillary, Degeneration, Cystic						1 (10%)
Axillary, Infiltration Cellular, Plasma Cell						1 (10%)
Degeneration, Cystic				1 (20%)		
Infiltration Cellular, Plasma Cell				1 (20%)		
Inguinal, Infiltration Cellular, Plasma Cell	1 (9%)					
Lumbar, Degeneration, Cystic	4 (36%)	4 (40%)	4 (33%)	3 (60%)	6 (67%)	4 (40%)

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

CD Rat FEMALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Lumbar, Hemorrhage			1 (8%)			
Lumbar, Hyperplasia, Lymphoid	1 (9%)	1 (10%)				
Lumbar, Infiltration Cellular, Plasma Cell	6 (55%)	6 (60%)	4 (33%)	3 (60%)	6 (67%)	7 (70%)
Mediastinal, Hemorrhage						
Mediastinal, Infiltration Cellular, Plasma Cell						
Pancreatic, Hemorrhage			1 (8%)	1 (20%)		
Pancreatic, Infiltration Cellular, Plasma Cell		1 (10%)				
Pancreatic, Inflammation, Granulomatous			1 (8%)			
Pancreatic, Pigmentation			1 (8%)			
Popliteal, Hyperplasia, Lymphoid		1 (10%)				
Popliteal, Infiltration Cellular, Plasma Cell		2 (20%)	3 (25%)		2 (22%)	
Renal, Degeneration, Cystic				1 (20%)		2 (20%)
Renal, Infiltration Cellular, Plasma Cell		1 (10%)		1 (20%)	1 (11%)	
Thoracic, Infiltration Cellular, Plasma Cell					1 (11%)	
Thoracic, Thrombosis			1 (8%)			
Lymph Node, Mandibular	(53)	(50)	(50)	(49)	(50)	(50)
Cyst						1 (2%)
Degeneration, Cystic	1 (2%)	1 (2%)	3 (6%)	2 (4%)	2 (4%)	1 (2%)
Hemorrhage	1 (2%)			1 (2%)	1 (2%)	1 (2%)
Hyperplasia, Lymphoid			1 (2%)			
Infiltration Cellular, Plasma Cell	41 (77%)	40 (80%)	43 (86%)	44 (90%)	38 (76%)	43 (86%)
Lymph Node, Mesenteric	(54)	(50)	(50)	(48)	(50)	(50)
Degeneration, Cystic		1 (2%)	1 (2%)			2 (4%)
Hemorrhage				2 (4%)	1 (2%)	
Hyperplasia, Lymphoid		2 (4%)				
Inflammation, Granulomatous	44 (81%)	42 (84%)	42 (84%)	44 (92%)	46 (92%)	47 (94%)
Spleen	(54)	(50)	(50)	(49)	(50)	(50)
Hematopoietic Cell Proliferation	15 (28%)	9 (18%)	12 (24%)	12 (24%)	5 (10%)	8 (16%)
Hemorrhage						
Inflammation, Chronic Active, Focal			1 (2%)			

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

CD Rat FEMALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Lymphocyte, Atrophy	1 (2%)	2 (4%)	5 (10%)	6 (12%)	3 (6%)	3 (6%)
Pigmentation	31 (57%)	26 (52%)	28 (56%)	41 (84%)	28 (56%)	19 (38%)
Red Pulp, Atrophy			1 (2%)			
Red Pulp, Hyperplasia						
Thymus	(50)	(43)	(43)	(44)	(47)	(47)
Atrophy	9 (18%)	7 (16%)	7 (16%)	12 (27%)	10 (21%)	9 (19%)
Cyst	15 (30%)	10 (23%)	16 (37%)	17 (39%)	17 (36%)	13 (28%)
Ectopic Thyroid			1 (2%)			
Epithel Cell, Hyperplasia	1 (2%)	1 (2%)	1 (2%)	3 (7%)	2 (4%)	2 (4%)
Hemorrhage	1 (2%)	1 (2%)	2 (5%)	1 (2%)	1 (2%)	
Hyperplasia, Lymphoid				1 (2%)		
INTEGUMENTARY SYSTEM						
Mammary Gland	(54)	(50)	(50)	(49)	(50)	(50)
Alveolus, Degeneration				2 (4%)		
Alveolus, Hyperplasia	13 (24%)	11 (22%)	11 (22%)	11 (22%)	14 (28%)	10 (20%)
Atypical Focus	13 (24%)	4 (8%)	6 (12%)	5 (10%)	2 (4%)	7 (14%)
Duct, Hyperplasia						1 (2%)
Galactocele	3 (6%)	1 (2%)	2 (4%)	2 (4%)	2 (4%)	
Inflammation						
Lactation	30 (56%)	31 (62%)	35 (70%)	42 (86%)	28 (56%)	33 (66%)
Skin	(54)	(50)	(50)	(49)	(50)	(50)
Cyst Epithelial Inclusion					1 (2%)	
Foot, Inflammation, Chronic	36 (67%)	34 (68%)	32 (64%)	33 (67%)	35 (70%)	36 (72%)
Inflammation					1 (2%)	
Lip, Inflammation, Chronic					1 (2%)	1 (2%)
MUSCULOSKELETAL SYSTEM						
Bone, Femur	(54)	(50)	(50)	(49)	(50)	(50)
Hyperostosis	1 (2%)					
Bone, Mandible	(0)	(0)	(0)	(0)	(1)	(0)

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

CD Rat FEMALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Bone, Tibia	(0)	(0)	(0)	(0)	(0)	(0)
Malformation						
Skeletal Muscle	(0)	(1)	(1)	(0)	(1)	(1)
NERVOUS SYSTEM						
Brain, Brain Stem	(54)	(50)	(50)	(49)	(50)	(50)
Compression	19 (35%)	18 (36%)	24 (48%)	35 (71%)	15 (30%)	17 (34%)
Brain, Cerebellum	(53)	(50)	(50)	(49)	(49)	(50)
Brain, Cerebrum	(54)	(50)	(50)	(49)	(50)	(50)
Hemorrhage						2 (4%)
Hydrocephalus	2 (4%)			3 (6%)	3 (6%)	2 (4%)
RESPIRATORY SYSTEM						
Lung	(54)	(50)	(50)	(49)	(50)	(50)
Alveolar Epith, Hyperplasia		1 (2%)	2 (4%)			
Atelectasis					1 (2%)	
Hemorrhage		1 (2%)				
Infiltration Cellular, Histiocyte	9 (17%)	17 (34%)	13 (26%)	17 (35%)	12 (24%)	12 (24%)
Inflammation			1 (2%)		1 (2%)	
Metaplasia					1 (2%)	
Nose	(54)	(50)	(50)	(49)	(50)	(50)
Foreign Body				1 (2%)		
Fungus					1 (2%)	
Inflammation			3 (6%)	2 (4%)	4 (8%)	1 (2%)
Keratin Cyst				2 (4%)	1 (2%)	
Nasolacrim Dct, Inflammation	7 (13%)	7 (14%)	6 (12%)	7 (14%)	2 (4%)	
Upper Molar, Inflammation	1 (2%)	1 (2%)	5 (10%)	3 (6%)	3 (6%)	2 (4%)
Trachea	(54)	(50)	(50)	(49)	(50)	(50)
SPECIAL SENSES SYSTEM						
Ear	(0)	(0)	(0)	(0)	(2)	(0)
Hemorrhage					1 (50%)	

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

CD Rat FEMALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Eye	(32)	(32)	(31)	(26)	(33)	(37)
Bilateral, Lens, Cataract		1 (3%)	2 (6%)		1 (3%)	3 (8%)
Bilateral, Retina, Degeneration	3 (9%)	3 (9%)	1 (3%)	1 (4%)	1 (3%)	2 (5%)
Cornea, Ulcer						
Lens, Cataract				2 (8%)		
Lens, Unilateral, Cataract	1 (3%)					
Phthisis Bulbi				1 (4%)		
Polyarteritis						1 (3%)
Retina, Degeneration	2 (6%)	1 (3%)	3 (10%)	3 (12%)	4 (12%)	5 (14%)
Retina, Unilateral, Degeneration	1 (3%)					
Harderian Gland	(30)	(34)	(30)	(25)	(33)	(36)
Epithelium, Degeneration	6 (20%)	20 (59%)	9 (30%)	10 (40%)	18 (55%)	17 (47%)
Hypertrophy	3 (10%)	3 (9%)	4 (13%)	3 (12%)	3 (9%)	4 (11%)
Lacrimal Gland	(0)	(1)	(1)	(1)	(1)	(0)
Metaplasia		1 (100%)		1 (100%)	1 (100%)	
URINARY SYSTEM						
Kidney	(54)	(50)	(50)	(49)	(50)	(50)
Accumulation, Hyaline Droplet	2 (4%)	1 (2%)				
Cyst	14 (26%)	17 (34%)	13 (26%)	13 (27%)	12 (24%)	16 (32%)
Epithelium, Pelvis, Hyperplasia	1 (2%)		1 (2%)		1 (2%)	1 (2%)
Hydronephrosis	2 (4%)					
Infarct	1 (2%)	3 (6%)	1 (2%)		2 (4%)	1 (2%)
Inflammation	2 (4%)		1 (2%)	1 (2%)		3 (6%)
Nephropathy	13 (24%)	10 (20%)	12 (24%)	17 (35%)	13 (26%)	5 (10%)
Pelvis, Mineralization	16 (30%)	20 (40%)	23 (46%)	25 (51%)	20 (40%)	21 (42%)
Renal Tubule, Mineralization	38 (70%)	37 (74%)	36 (72%)	37 (76%)	36 (72%)	33 (66%)
Renal Tubule, Pigmentation				1 (2%)		
Urinary Bladder	(54)	(49)	(49)	(49)	(49)	(48)
Developmental Malformation				1 (2%)		
Hyperplasia		1 (2%)	1 (2%)			

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

CD Rat FEMALE	F1 0PPM	F1 5PPM	F1 100PPM	F1 500PPM	F1 5PPM/CTL	F1 100PPM/CTL
Inflammation			1 (2%)			
Mineralization						1 (2%)

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

CD Rat FEMALE	F1 500PPM/CTL
Disposition Summary	
Animals Initially In Study	**50**
Early Deaths	
Moribund	**18**
Natural Death	**9**
Survivors	
Moribund	
Natural Death	
Terminal Sacrifice	**23**
Animals Examined Microscopically	**50**
ALIMENTARY SYSTEM	
Esophagus	(50)
Lumen, Dilatation	
Intestine Large	(0)
Intestine Large, Cecum	(50)
Inflammation	
Intestine Large, Colon	(50)
Intestine Large, Rectum	(26)
Intestine Small	(0)
Hyperplasia, Lymphoid	
Intestine Small, Duodenum	(50)
Intestine Small, Ileum	(47)
Intestine Small, Jejunum	(49)
Inflammation	
Liver	(50)
Angiectasis	2 (4%)
Atypical Cells	
Basophilic Focus	6 (12%)
Bile Duct, Hyperplasia	13 (26%)

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CD Rat FEMALE	F1 500PPM/CTL
Biliar Tract, Fibrosis	2 (4%)
Clear Cell Focus	
Congestion	
Cyst	3 (6%)
Degeneration, Cystic	1 (2%)
Developmental Malformation	
Eosinophilic Focus	4 (8%)
Fibrosis	
Hematopoietic Cell Proliferation	1 (2%)
Hepatodiaphragmatic Nodule	2 (4%)
Infiltration Cellular, Lymphocyte	1 (2%)
Inflammation, Chronic Active	2 (4%)
Mixed Cell Focus	
Necrosis	2 (4%)
Polyarteritis	
Tension Lipidosis	
Vacuolization Cytoplasmic	3 (6%)
Vacuolization Cytoplasmic, Focal	
Mesentery	(2)
Fat, Necrosis	2 (100%)
Pancreas	(50)
Acinar Cell, Degeneration	14 (28%)
Acinar Cell, Hyperplasia	
Inflammation	1 (2%)
Polyarteritis	1 (2%)
Salivary Glands	(50)
Atrophy	1 (2%)
Parotid Gl, Inflammation	2 (4%)
Submandibul Gl, Inflammation	
Stomach, Forestomach	(50)

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CD Rat FEMALE	F1 500PPM/CTL
Diverticulum	
Hyperplasia	2 (4%)
Inflammation	1 (2%)
Keratin Cyst	
Ulcer	1 (2%)
Stomach, Glandular	(50)
Erosion	
Tongue	(0)
CARDIOVASCULAR SYSTEM	
Blood Vessel	(50)
Mineralization	
Heart	(50)
Atrium Rgt, Dilatation	
Cardiomyopathy	28 (56%)
Inflammation	
Mineralization	
ENDOCRINE SYSTEM	
Adrenal Cortex	(50)
Accessory Adrenal Cortical Nodule	
Angiectasis	1 (2%)
Atrophy	
Degeneration, Cystic	45 (90%)
Hematopoietic Cell Proliferation	
Hyperplasia	11 (22%)
Hypertrophy	18 (36%)
Infarct	
Vacuolization Cytoplasmic	1 (2%)
Adrenal Medulla	(48)
Hyperplasia, Diffuse	

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CD Rat FEMALE	F1 500PPM/CTL
Hyperplasia, Focal	5 (10%)
Infiltration Cellular, Eosinophil	
Islets, Pancreatic	(50)
Hyperplasia	2 (4%)
Parathyroid Gland	(43)
Hyperplasia, Diffuse	1 (2%)
Hyperplasia, Focal	1 (2%)
Pituitary Gland	(50)
Angiectasis	
Cyst	
Infiltration Cellular, Histiocyte	
Pars Distalis, Hyperplasia	2 (4%)
Thyroid Gland	(50)
C Cell, Hyperplasia	2 (4%)
Cyst, Squamous	8 (16%)
Follicular Cel, Atrophy	1 (2%)
Follicular Cel, Hyperplasia	1 (2%)
GENERAL BODY SYSTEM	
Tissue NOS	(1)
GENITAL SYSTEM	
Clitoral Gland	(49)
Duct, Dilatation	11 (22%)
Hyperplasia	3 (6%)
Inflammation	23 (47%)
Parenchym Cell, Degeneration	2 (4%)
Ovary	(49)
Angiectasis	
Atrophy	42 (86%)
Cyst	18 (37%)

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CD Rat FEMALE	F1 500PPM/CTL
Granulosa Cell, Hyperplasia	
Hyperplasia, Stromal	17 (35%)
Serosa, Hyperplasia	1 (2%)
Oviduct	(47)
Uterus	(50)
Angiectasis	
Atrophy	
Cervix, Muscularis, Hypertrophy	2 (4%)
Hemorrhage	
Hyperplasia, Cystic	33 (66%)
Hyperplasia, Focal	1 (2%)
Inflammation	
Metaplasia	7 (14%)
Necrosis	
Vagina	(50)
Developmental Malformation	
Hyperplasia	
Inflammation	5 (10%)
Keratin Cyst	
HEMATOPOIETIC SYSTEM	
Bone Marrow	(50)
Hypocellularity	1 (2%)
Myeloid Cell, Hyperplasia	1 (2%)
Lymph Node	(9)
Axillary, Degeneration, Cystic	
Axillary, Infiltration Cellular, Plasma Cell	
Degeneration, Cystic	
Infiltration Cellular, Plasma Cell	
Inguinal, Infiltration Cellular, Plasma Cell	
Lumbar, Degeneration, Cystic	3 (33%)

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CD Rat FEMALE	F1 500PPM/CTL
Lumbar, Hemorrhage	
Lumbar, Hyperplasia, Lymphoid	
Lumbar, Infiltration Cellular, Plasma Cell	6 (67%)
Mediastinal, Hemorrhage	1 (11%)
Mediastinal, Infiltration Cellular, Plasma Cell	1 (11%)
Pancreatic, Hemorrhage	2 (22%)
Pancreatic, Infiltration Cellular, Plasma Cell	
Pancreatic, Inflammation, Granulomatous	
Pancreatic, Pigmentation	
Popliteal, Hyperplasia, Lymphoid	
Popliteal, Infiltration Cellular, Plasma Cell	1 (11%)
Renal, Degeneration, Cystic	1 (11%)
Renal, Infiltration Cellular, Plasma Cell	1 (11%)
Thoracic, Infiltration Cellular, Plasma Cell	
Thoracic, Thrombosis	
Lymph Node, Mandibular	(50)
Cyst	
Degeneration, Cystic	2 (4%)
Hemorrhage	1 (2%)
Hyperplasia, Lymphoid	
Infiltration Cellular, Plasma Cell	45 (90%)
Lymph Node, Mesenteric	(50)
Degeneration, Cystic	1 (2%)
Hemorrhage	
Hyperplasia, Lymphoid	
Inflammation, Granulomatous	45 (90%)
Spleen	(50)
Hematopoietic Cell Proliferation	8 (16%)
Hemorrhage	1 (2%)
Inflammation, Chronic Active, Focal	

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CD Rat FEMALE	F1 500PPM/CTL
Lymphocyte, Atrophy	4 (8%)
Pigmentation	34 (68%)
Red Pulp, Atrophy	
Red Pulp, Hyperplasia	1 (2%)
Thymus	(47)
Atrophy	9 (19%)
Cyst	20 (43%)
Ectopic Thyroid	
Epithel Cell, Hyperplasia	1 (2%)
Hemorrhage	
Hyperplasia, Lymphoid	
INTEGUMENTARY SYSTEM	
Mammary Gland	(50)
Alveolus, Degeneration	
Alveolus, Hyperplasia	15 (30%)
Atypical Focus	11 (22%)
Duct, Hyperplasia	
Galactocele	2 (4%)
Inflammation	1 (2%)
Lactation	40 (80%)
Skin	(50)
Cyst Epithelial Inclusion	
Foot, Inflammation, Chronic	35 (70%)
Inflammation	
Lip, Inflammation, Chronic	
MUSCULOSKELETAL SYSTEM	
Bone, Femur	(50)
Hyperostosis	
Bone, Mandible	(0)

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CD Rat FEMALE	F1 500PPM/CTL
Bone, Tibia	(1)
Malformation	1 (100%)
Skeletal Muscle	(0)
NERVOUS SYSTEM	
Brain, Brain Stem	(50)
Compression	31 (62%)
Brain, Cerebellum	(50)
Brain, Cerebrum	(50)
Hemorrhage	
Hydrocephalus	2 (4%)
RESPIRATORY SYSTEM	
Lung	(50)
Alveolar Epith, Hyperplasia	1 (2%)
Atelectasis	
Hemorrhage	
Infiltration Cellular, Histiocyte	20 (40%)
Inflammation	1 (2%)
Metaplasia	
Nose	(50)
Foreign Body	
Fungus	
Inflammation	4 (8%)
Keratin Cyst	
Nasolacrim Dct, Inflammation	4 (8%)
Upper Molar, Inflammation	1 (2%)
Trachea	(50)
SPECIAL SENSES SYSTEM	
Ear	(0)
Hemorrhage	

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CD Rat FEMALE	F1 500PPM/CTL
Eye	(28)
Bilateral, Lens, Cataract	
Bilateral, Retina, Degeneration	
Cornea, Ulcer	1 (4%)
Lens, Cataract	
Lens, Unilateral, Cataract	
Phthisis Bulbi	
Polyarteritis	
Retina, Degeneration	1 (4%)
Retina, Unilateral, Degeneration	
Harderian Gland	(26)
Epithelium, Degeneration	13 (50%)
Hypertrophy	5 (19%)
Lacrimal Gland	(2)
Metaplasia	1 (50%)
URINARY SYSTEM	
Kidney	(50)
Accumulation, Hyaline Droplet	
Cyst	19 (38%)
Epithelium, Pelvis, Hyperplasia	
Hydronephrosis	
Infarct	
Inflammation	1 (2%)
Nephropathy	8 (16%)
Pelvis, Mineralization	23 (46%)
Renal Tubule, Mineralization	36 (72%)
Renal Tubule, Pigmentation	
Urinary Bladder	(49)
Developmental Malformation	
Hyperplasia	

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CD Rat FEMALE	F1 500PPM/CTL
Inflammation	
Mineralization	

** END OF REPORT **

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