

**Experiment Number:** 10119 - 01  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/NCTR

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

Furan  
**CAS Number:** 110-00-9

**Date Report Requested:** 06/03/2014  
**Time Report Requested:** 08:42:42  
**First Dose M/F:** 09/07/09 / NA  
**Lab:** NCTR

104 Week

**NTP Study Number:** C10119

**Lock Date:** 06/02/2014

**Cage Range:** ALL

**Date Range:** ALL

**Reasons For Removal:** ALL

**Removal Date Range:** ALL

**Treatment Groups:** Include 001 0 Vehicle 104 wk  
Include 004 0.092 Furan104wk  
Include 007 0.92 Furan 104wk

Include 002 0.02 Furan 104wk  
Include 005 0.2 Furan 104 wk  
Include 008 2 Furan 104 wk

Include 003 0.044 Furan104wk  
Include 006 0.44 Furan 104wk

**Study Gender:** Male

**TDMSE Version:** 3.0.2.0\_001

**PWG Approval Date:** NONE

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 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	0 Vehicle 104 wk	0.02 Furan 104wk	0.044 Furan104wk	0.092 Furan104wk	0.2 Furan 104 wk	0.44 Furan 104wk
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**Disposition Summary**

Animals Initially In Study	150	150	100	100	50	50
Early Deaths						
Accidentally Killed				1		
Moribund Sacrifice	71	68	45	38	19	20
Natural Death	8	3	7	6	2	5
Survivors						
Moribund Sacrifice	24	30	17	25	12	11
Natural Death	2	7	3	2	1	1
Terminal Sacrifice	45	42	28	28	16	13
Animals Examined Microscopically	150	150	100	100	50	50

**ALIMENTARY SYSTEM**

Esophagus	(150)	(150)	(100)	(100)	(50)	(50)
Bacterium				1 (1%)		
Hemorrhage				1 (1%)		
Inflammation, Suppurative				1 (1%)		
Necrosis				1 (1%)		
Perforation					2 (4%)	
Ulcer				1 (1%)		
Lumen, Dilatation	1 (1%)					
Periesophageal Tissue, Foreign Body						
Periesophageal Tissue, Hemorrhage				1 (1%)		
Periesophageal Tissue, Infiltration Cellular, Polymorphonuclear						
Periesophageal Tissue, Necrosis				1 (1%)		
Intestine Large, Cecum	(140)	(142)	(91)	(93)	(47)	(44)
Edema		1 (1%)				
Hemorrhage						
Inflammation, Suppurative		1 (1%)				
Ulcer		1 (1%)				
Lumen, Dilatation		1 (1%)				
Mucosa, Hyperplasia		1 (1%)	1 (1%)		1 (2%)	1 (2%)
Intestine Large, Colon	(143)	(146)	(94)	(95)	(49)	(44)

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FISCHER 344 RATS-NCTR RATS MALE	0 Vehicle 104 wk	0.02 Furan 104wk	0.044 Furan104wk	0.092 Furan104wk	0.2 Furan 104 wk	0.44 Furan 104wk
Edema	1 (1%)					
Inflammation, Chronic Active						
Necrosis	1 (1%)					
Ulcer						
Epithelium, Cyst		1 (1%)				
Mucosa, Hyperplasia		1 (1%)	1 (1%)		1 (2%)	
Serosa, Inflammation, Chronic Active				1 (1%)		
Intestine Large, Rectum	(143)	(146)	(94)	(95)	(49)	(45)
Anus, Inflammation, Chronic				1 (1%)		
Mucosa, Hyperplasia		1 (1%)			1 (2%)	1 (2%)
Intestine Small, Duodenum	(144)	(145)	(94)	(95)	(48)	(44)
Inflammation, Suppurative						1 (2%)
Inflammation, Chronic Active	1 (1%)	1 (1%)				
Necrosis						1 (2%)
Ulcer		1 (1%)				
Mucosa, Hyperplasia	8 (6%)	8 (6%)	3 (3%)	2 (2%)	4 (8%)	3 (7%)
Intestine Small, Ileum	(139)	(142)	(91)	(92)	(47)	(44)
Necrosis	1 (1%)					
Mucosa, Hyperplasia		1 (1%)	1 (1%)		1 (2%)	
Intestine Small, Jejunum	(140)	(142)	(91)	(93)	(47)	(44)
Edema	1 (1%)					
Infiltration Cellular, Polymorphonuclear	1 (1%)					
Inflammation, Chronic Active			1 (1%)			
Mucosa, Hyperplasia			2 (2%)		1 (2%)	
Serosa, Hemorrhage			1 (1%)			
Serosa, Necrosis			1 (1%)			
Liver	(149)	(150)	(99)	(100)	(50)	(49)
Angiectasis				1 (1%)		
Basophilic Focus	28 (19%)	16 (11%)	19 (19%)	18 (18%)	11 (22%)	13 (27%)
Cholangiofibrosis				1 (1%)	38 (76%)	49 (100%)
Clear Cell Focus	6 (4%)	4 (3%)	2 (2%)	1 (1%)	1 (2%)	
Congestion				1 (1%)		
Deformity	5 (3%)	4 (3%)	1 (1%)	2 (2%)	1 (2%)	
Degeneration, Cystic	25 (17%)	7 (5%)	11 (11%)	15 (15%)	8 (16%)	11 (22%)
Eosinophilic Focus	2 (1%)	1 (1%)		1 (1%)	1 (2%)	2 (4%)
Fibrosis	1 (1%)		1 (1%)	1 (1%)	1 (2%)	

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FISCHER 344 RATS-NCTR RATS MALE	0 Vehicle 104 wk	0.02 Furan 104wk	0.044 Furan104wk	0.092 Furan104wk	0.2 Furan 104 wk	0.44 Furan 104wk
Granuloma	27 (18%)	27 (18%)	18 (18%)	20 (20%)	2 (4%)	7 (14%)
Hematopoietic Cell Proliferation						
Hemorrhage		2 (1%)	2 (2%)			
Hepatodiaphragmatic Nodule	4 (3%)	3 (2%)	3 (3%)			1 (2%)
Hyperplasia, Regenerative		1 (1%)	1 (1%)	2 (2%)	1 (2%)	1 (2%)
Inflammation, Suppurative						2 (4%)
Inflammation, Chronic Active	5 (3%)	2 (1%)		1 (1%)		
Mixed Cell Focus	7 (5%)	7 (5%)	6 (6%)	3 (3%)	5 (10%)	3 (6%)
Pigmentation	1 (1%)		1 (1%)			3 (6%)
Polyarteritis	1 (1%)					
Tension Lipidosis	3 (2%)	3 (2%)	4 (4%)	2 (2%)	1 (2%)	
Thrombosis	4 (3%)	2 (1%)	1 (1%)			
Vacuolization Cytoplasmic	23 (15%)	23 (15%)	14 (14%)	19 (19%)	12 (24%)	18 (37%)
Bile Duct, Biliary Tract, Cyst Multilocular	1 (1%)					
Bile Duct, Biliary Tract, Hyperplasia	89 (60%)	86 (57%)	59 (60%)	56 (56%)	29 (58%)	25 (51%)
Bile Duct, Subcapsular, Hyperplasia						
Capsule, Fibrosis		1 (1%)	1 (1%)	1 (1%)	1 (2%)	
Capsule, Infiltration Cellular, Polymorphonuclear	1 (1%)					
Capsule, Inflammation, Chronic Active		1 (1%)				
Capsule, Necrosis		1 (1%)				
Capsule, Pigmentation	1 (1%)					
Centrilobular, Hepatocyte, Degeneration	29 (19%)	25 (17%)	18 (18%)	16 (16%)	13 (26%)	11 (22%)
Centrilobular, Hepatocyte, Necrosis	1 (1%)	2 (1%)				1 (2%)
Hepatocyte, Hypertrophy			1 (1%)		1 (2%)	2 (4%)
Hepatocyte, Necrosis	12 (8%)	9 (6%)	8 (8%)	4 (4%)	6 (12%)	2 (4%)
Hepatocyte, Periportal, Degeneration					1 (2%)	
Oval Cell, Hyperplasia	14 (9%)	15 (10%)	10 (10%)	8 (8%)	7 (14%)	6 (12%)
Periportal, Cytoplasmic Alteration						1 (2%)
Periportal, Vacuolization Cytoplasmic	34 (23%)	27 (18%)	18 (18%)	12 (12%)	4 (8%)	7 (14%)
Subcapsular, Fibrosis					1 (2%)	
Subcapsular, Inflammation, Chronic					1 (2%)	1 (2%)
Subcapsular, Pigmentation					1 (2%)	
Mesentery	(31)	(35)	(25)	(25)	(14)	(8)
Accessory Spleen	1 (3%)					
Cyst			1 (4%)			

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Inflammation, Granulomatous			1 (4%)	1 (4%)		
Inflammation, Chronic Active		1 (3%)				
Mineralization						
Pigmentation		1 (3%)				
Fat, Hemorrhage	1 (3%)	1 (3%)		1 (4%)		
Fat, Necrosis	28 (90%)	31 (89%)	24 (96%)	23 (92%)	13 (93%)	7 (88%)
Oral Mucosa	(1)	(1)	(3)	(1)	(0)	(1)
Hemorrhage			1 (33%)			
Inflammation, Chronic Active						1 (100%)
Epithelium, Hyperplasia			1 (33%)			
Gingival, Ulcer						1 (100%)
Pancreas	(150)	(149)	(99)	(100)	(50)	(49)
Edema		1 (1%)		1 (1%)		
Infiltration Cellular, Lymphocyte					1 (2%)	
Inflammation, Chronic Active	1 (1%)					
Necrosis	1 (1%)					
Pigmentation						1 (2%)
Polyarteritis	1 (1%)		3 (3%)	1 (1%)		1 (2%)
Acinar Cell, Hyperplasia	26 (17%)	16 (11%)	17 (17%)	17 (17%)	9 (18%)	7 (14%)
Acinus, Degeneration	32 (21%)	39 (26%)	21 (21%)	17 (17%)	17 (34%)	11 (22%)
Artery, Fibrosis						
Artery, Hyperplasia	1 (1%)	1 (1%)				
Salivary Glands	(150)	(150)	(99)	(100)	(50)	(49)
Infiltration Cellular, Lymphocyte			1 (1%)	1 (1%)		
Acinar Cell, Hyperplasia	1 (1%)					
Acinus, Degeneration			1 (1%)	1 (1%)		
Stomach, Forestomach	(149)	(150)	(99)	(100)	(50)	(49)
Edema	27 (18%)	22 (15%)	13 (13%)	16 (16%)	15 (30%)	12 (24%)
Fibrosis	1 (1%)		1 (1%)		1 (2%)	
Hyperplasia, Basal Cell	1 (1%)					
Inflammation, Chronic Active	33 (22%)	31 (21%)	18 (18%)	19 (19%)	14 (28%)	15 (31%)
Necrosis	1 (1%)	1 (1%)	2 (2%)			
Perforation	5 (3%)	5 (3%)	2 (2%)	4 (4%)	5 (10%)	2 (4%)
Ulcer	13 (9%)	17 (11%)	11 (11%)	7 (7%)	5 (10%)	9 (18%)
Epithelium, Hyperplasia	41 (28%)	41 (27%)	22 (22%)	24 (24%)	19 (38%)	17 (35%)
Serosa, Fibrosis	3 (2%)	4 (3%)	3 (3%)	1 (1%)	3 (6%)	

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Serosa, Inflammation, Suppurative		1 (1%)				
Serosa, Inflammation, Chronic Active	1 (1%)					
Serosa, Necrosis		1 (1%)				
Stomach, Glandular	(146)	(145)	(96)	(97)	(49)	(44)
Edema	1 (1%)	5 (3%)		2 (2%)	3 (6%)	1 (2%)
Inflammation, Chronic Active	3 (2%)	3 (2%)	2 (2%)	2 (2%)	3 (6%)	1 (2%)
Mineralization		1 (1%)	2 (2%)	1 (1%)		
Necrosis		1 (1%)	1 (1%)			1 (2%)
Ulcer	2 (1%)	1 (1%)			1 (2%)	2 (5%)
Mucosa, Hyperplasia	6 (4%)	12 (8%)	5 (5%)	5 (5%)	4 (8%)	3 (7%)
Tongue	(1)	(1)	(1)	(2)	(0)	(0)
Foreign Body			1 (100%)			
Inflammation, Chronic Active			1 (100%)			
Epithelium, Hyperplasia			1 (100%)	1 (50%)		
<b>CARDIOVASCULAR SYSTEM</b>						
Blood Vessel	(150)	(150)	(100)	(100)	(49)	(50)
Hemorrhage					1 (2%)	
Inflammation, Chronic		1 (1%)				
Mineralization						
Heart	(150)	(150)	(100)	(100)	(50)	(50)
Cardiomyopathy	134 (89%)	138 (92%)	86 (86%)	89 (89%)	47 (94%)	46 (92%)
Congestion	1 (1%)	1 (1%)				
Foreign Body						
Hemorrhage		1 (1%)		1 (1%)		
Inflammation, Granulomatous						
Inflammation, Chronic Active				1 (1%)		
Metaplasia, Osseous			1 (1%)			
Mineralization	2 (1%)	2 (1%)	4 (4%)	1 (1%)	1 (2%)	1 (2%)
Pigmentation		1 (1%)	1 (1%)			
Thrombosis	22 (15%)	20 (13%)	17 (17%)	12 (12%)	9 (18%)	7 (14%)
Atrium, Dilatation	1 (1%)		1 (1%)			
Myocardium, Necrosis	1 (1%)					
Pericardium, Fibrosis	1 (1%)		1 (1%)			

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Pericardium, Hemorrhage				1 (1%)		
Pericardium, Infiltration Cellular, Polymorphonuclear						
Pericardium, Inflammation, Suppurative				1 (1%)	1 (2%)	
Pericardium, Inflammation, Chronic Active				1 (1%)		
Pericardium, Necrosis				2 (2%)	1 (2%)	
Ventricle, Dilatation	2 (1%)		3 (3%)	1 (1%)		2 (4%)
<b>ENDOCRINE SYSTEM</b>						
Adrenal Cortex	(150)	(150)	(99)	(100)	(50)	(49)
Accessory Adrenal Cortical Nodule	4 (3%)	10 (7%)	2 (2%)	8 (8%)		1 (2%)
Angiectasis		1 (1%)				
Atrophy		1 (1%)				
Cyst	3 (2%)	1 (1%)	1 (1%)			1 (2%)
Fibrosis	1 (1%)	1 (1%)			1 (2%)	
Hyperplasia	10 (7%)	5 (3%)	5 (5%)	7 (7%)	1 (2%)	3 (6%)
Hypertrophy		1 (1%)	4 (4%)	1 (1%)		1 (2%)
Metaplasia, Osseous				1 (1%)		
Necrosis	2 (1%)	1 (1%)				
Pigmentation		1 (1%)				
Polyarteritis	1 (1%)					
Thrombosis	2 (1%)					
Vacuolization Cytoplasmic Capsule, Fibrosis	121 (81%)	114 (76%)	69 (70%)	74 (74%)	45 (90%)	34 (69%)
Adrenal Medulla	(150)	(150)	(99)	(100)	(50)	(49)
Fibrosis			1 (1%)		1 (2%)	
Hemorrhage	1 (1%)	1 (1%)			1 (2%)	
Hyperplasia	67 (45%)	74 (49%)	45 (45%)	35 (35%)	27 (54%)	18 (37%)
Mineralization	1 (1%)	1 (1%)	1 (1%)		1 (2%)	
Necrosis					1 (2%)	
Thrombosis	1 (1%)	2 (1%)	3 (3%)			
Islets, Pancreatic	(150)	(150)	(99)	(100)	(50)	(49)
Angiectasis			1 (1%)			
Hyperplasia	3 (2%)	8 (5%)	7 (7%)	3 (3%)	1 (2%)	

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FISCHER 344 RATS-NCTR RATS MALE	0 Vehicle 104 wk	0.02 Furan 104wk	0.044 Furan104wk	0.092 Furan104wk	0.2 Furan 104 wk	0.44 Furan 104wk
Necrosis						
Parathyroid Gland	(149)	(150)	(98)	(98)	(50)	(49)
Angiectasis	1 (1%)					
Fibrosis						
Hyperplasia	38 (26%)	25 (17%)	11 (11%)	15 (15%)	8 (16%)	5 (10%)
Pituitary Gland	(150)	(148)	(100)	(100)	(50)	(49)
Hemorrhage	3 (2%)	5 (3%)	4 (4%)	7 (7%)	4 (8%)	3 (6%)
Pigmentation	1 (1%)	1 (1%)			1 (2%)	
Pars Distalis, Angiectasis	1 (1%)	1 (1%)	1 (1%)	2 (2%)		
Pars Distalis, Cyst	12 (8%)	5 (3%)	4 (4%)	5 (5%)	3 (6%)	3 (6%)
Pars Distalis, Hyperplasia	27 (18%)	29 (20%)	28 (28%)	23 (23%)	7 (14%)	11 (22%)
Pars Distalis, Necrosis		1 (1%)	1 (1%)		1 (2%)	
Pars Intermedia, Cyst	3 (2%)		1 (1%)			
Pars Intermedia, Hyperplasia						
Pars Nervosa, Cyst				1 (1%)		
Pars Nervosa, Hyperplasia	1 (1%)					
Rathke's Cleft, Cyst	1 (1%)				1 (2%)	
Thyroid Gland	(150)	(150)	(99)	(100)	(50)	(49)
Cyst				1 (1%)		
Ectopic Thymus		1 (1%)				
Fibrosis		1 (1%)	1 (1%)			
Ultimobranchial Cyst			1 (1%)			
C-cell, Hyperplasia	95 (63%)	83 (55%)	53 (54%)	52 (52%)	29 (58%)	28 (57%)
Follicle, Cyst	8 (5%)	6 (4%)	4 (4%)	3 (3%)	5 (10%)	1 (2%)
Follicular Cell, Hyperplasia		2 (1%)	1 (1%)	1 (1%)		

**GENERAL BODY SYSTEM**

Peritoneum	(1)	(5)	(1)	(0)	(0)	(1)
Pigmentation		1 (20%)				
Tissue NOS	(2)	(1)	(2)	(2)	(0)	(0)
Hemorrhage	1 (50%)					
Inflammation, Suppurative			1 (50%)			
Necrosis	1 (50%)					
Mediastinum, Bacterium						

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Mediastinum, Foreign Body						
Mediastinum, Hemorrhage						
Mediastinum, Inflammation, Suppurative						
Mediastinum, Inflammation, Chronic						
Mediastinum, Necrosis						
<b>GENITAL SYSTEM</b>						
Ductus Deferens	(0)	(1)	(0)	(0)	(0)	(0)
Epididymis	(149)	(149)	(98)	(100)	(50)	(50)
Degeneration, Cystic			1 (1%)			
Edema						
Exfoliated Germ Cell	39 (26%)	42 (28%)	21 (21%)	32 (32%)	16 (32%)	15 (30%)
Fibrosis	2 (1%)		3 (3%)			2 (4%)
Hypospermia	78 (52%)	79 (53%)	46 (47%)	48 (48%)	28 (56%)	32 (64%)
Epithelium, Degeneration	64 (43%)	64 (43%)	37 (38%)	33 (33%)	25 (50%)	20 (40%)
Fat, Necrosis	1 (1%)				1 (2%)	
Lumen, Dilatation				1 (1%)		
Mesothelium, Hyperplasia						
Preputial Gland	(150)	(150)	(99)	(100)	(50)	(49)
Abscess	17 (11%)	18 (12%)	7 (7%)	10 (10%)	7 (14%)	9 (18%)
Edema		1 (1%)				
Fibrosis	72 (48%)	73 (49%)	49 (49%)	46 (46%)	24 (48%)	23 (47%)
Hyperkeratosis	3 (2%)			3 (3%)		
Infiltration Cellular, Lymphocyte	1 (1%)					
Inflammation, Suppurative	61 (41%)	65 (43%)	38 (38%)	35 (35%)	23 (46%)	13 (27%)
Inflammation, Chronic Active	66 (44%)	62 (41%)	49 (49%)	45 (45%)	21 (42%)	30 (61%)
Necrosis	3 (2%)	2 (1%)	1 (1%)	2 (2%)		1 (2%)
Ulcer				1 (1%)		
Acinus, Degeneration		1 (1%)				
Acinus, Hyperplasia	5 (3%)	10 (7%)	3 (3%)		6 (12%)	
Duct, Ectasia	81 (54%)	78 (52%)	49 (49%)	48 (48%)	33 (66%)	22 (45%)
Epithelium, Hyperplasia	3 (2%)	2 (1%)		1 (1%)		
Prostate	(149)	(150)	(98)	(100)	(50)	(49)
Abscess		1 (1%)				

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FISCHER 344 RATS-NCTR RATS MALE	0 Vehicle 104 wk	0.02 Furan 104wk	0.044 Furan104wk	0.092 Furan104wk	0.2 Furan 104 wk	0.44 Furan 104wk
Atrophy	27 (18%)	29 (19%)	15 (15%)	14 (14%)	7 (14%)	12 (24%)
Degeneration, Cystic	5 (3%)	6 (4%)	2 (2%)	3 (3%)	2 (4%)	1 (2%)
Fibrosis	5 (3%)	8 (5%)	2 (2%)	2 (2%)	3 (6%)	4 (8%)
Infiltration Cellular, Lymphocyte	1 (1%)					
Inflammation, Suppurative	100 (67%)	108 (72%)	74 (76%)	70 (70%)	38 (76%)	35 (71%)
Inflammation, Chronic Active	21 (14%)	12 (8%)	9 (9%)	12 (12%)	7 (14%)	6 (12%)
Mineralization		1 (1%)	1 (1%)			
Pigmentation		1 (1%)				
Polyarteritis						
Epithelium, Hyperplasia	40 (27%)	39 (26%)	19 (19%)	29 (29%)	7 (14%)	12 (24%)
Seminal Vesicle	(143)	(146)	(96)	(98)	(50)	(46)
Atrophy	51 (36%)	52 (36%)	28 (29%)	31 (32%)	18 (36%)	20 (43%)
Edema	1 (1%)					
Fibrosis					1 (2%)	
Inflammation, Suppurative	2 (1%)	2 (1%)	1 (1%)			
Inflammation, Chronic Active				1 (1%)	1 (2%)	
Adventitia, Inflammation, Suppurative						1 (2%)
Epithelium, Hyperplasia		1 (1%)				
Lumen, Dilatation	10 (7%)	14 (10%)	4 (4%)	15 (15%)	11 (22%)	1 (2%)
Serosa, Inflammation, Chronic Active				1 (1%)		
Testes	(150)	(149)	(98)	(100)	(50)	(49)
Mineralization	1 (1%)			1 (1%)		
Polyarteritis	28 (19%)	35 (23%)	14 (14%)	23 (23%)	10 (20%)	9 (18%)
Interstitial Cell, Hyperplasia	71 (47%)	72 (48%)	49 (50%)	42 (42%)	21 (42%)	22 (45%)
Seminiferous Tubule, Degeneration	116 (77%)	106 (71%)	68 (69%)	76 (76%)	40 (80%)	39 (80%)
<b>HEMATOPOIETIC SYSTEM</b>						
Bone Marrow	(148)	(150)	(95)	(100)	(49)	(49)
Fibrosis	3 (2%)	1 (1%)		2 (2%)	1 (2%)	1 (2%)
Hyperplasia, Megakaryocyte						
Hypocellularity	1 (1%)			1 (1%)		
Myelostromal Proliferation		1 (1%)				
Myeloid Cell, Hyperplasia	36 (24%)	27 (18%)	18 (19%)	20 (20%)	7 (14%)	12 (24%)
Lymph Node	(59)	(69)	(35)	(38)	(23)	(20)

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

Experiment Number: 10119 - 01  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/NCTR

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**  
 Furan  
 CAS Number: 110-00-9

Date Report Requested: 06/03/2014  
 Time Report Requested: 08:42:42  
 First Dose M/F: 09/07/09 / NA  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	0 Vehicle 104 wk	0.02 Furan 104wk	0.044 Furan104wk	0.092 Furan104wk	0.2 Furan 104 wk	0.44 Furan 104wk
Hyperplasia, Lymphoid			1 (3%)			1 (5%)
Infiltration Cellular, Plasma Cell				1 (3%)		1 (5%)
Inflammation, Granulomatous						
Axillary, Hemorrhage	1 (2%)					
Axillary, Hyperplasia, Lymphoid			1 (3%)			
Axillary, Infiltration Cellular, Plasma Cell				1 (3%)		
Axillary, Necrosis						
Cervical, Hemorrhage	1 (2%)					
Cervical, Hyperplasia, Lymphoid	1 (2%)					
Cervical, Infiltration Cellular, Plasma Cell	1 (2%)			1 (3%)		
Deep Cervical, Necrosis						
Hepatic, Hyperplasia, Lymphoid	1 (2%)					1 (5%)
Hepatic, Infiltration Cellular, Plasma Cell						1 (5%)
Hepatic, Inflammation, Granulomatous	1 (2%)	1 (1%)				2 (10%)
Hepatic, Necrosis						
Hepatic, Sinus, Dilatation						
Inguinal, Hyperplasia, Lymphoid				1 (3%)		
Inguinal, Infiltration Cellular, Plasma Cell	1 (2%)					1 (5%)
Inguinal, Infiltration Cellular, Polymorphonuclear	1 (2%)					
Lumbar, Hemorrhage		1 (1%)				
Lumbar, Hyperplasia, Lymphoid	3 (5%)	1 (1%)	1 (3%)	2 (5%)		1 (5%)
Lumbar, Infiltration Cellular, Histiocyte		1 (1%)				
Lumbar, Infiltration Cellular, Plasma Cell	3 (5%)	9 (13%)	2 (6%)	3 (8%)	2 (9%)	1 (5%)
Lumbar, Infiltration Cellular, Polymorphonuclear				1 (3%)		
Lumbar, Necrosis				1 (3%)		
Lumbar, Pigmentation		1 (1%)		1 (3%)		
Lumbar, Sinus, Dilatation	7 (12%)	11 (16%)	2 (6%)	5 (13%)	2 (9%)	1 (5%)
Mediastinal, Congestion			1 (3%)			
Mediastinal, Erythrophagocytosis		1 (1%)				
Mediastinal, Hemorrhage		2 (3%)	1 (3%)	1 (3%)		
Mediastinal, Hyperplasia, Lymphoid	3 (5%)	2 (3%)	1 (3%)			
Mediastinal, Infiltration Cellular, Plasma Cell	4 (7%)		2 (6%)	2 (5%)	3 (13%)	1 (5%)
Mediastinal, Necrosis						
Mediastinal, Pigmentation		2 (3%)				

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

Experiment Number: 10119 - 01  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/NCTR

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**  
 Furan  
 CAS Number: 110-00-9

Date Report Requested: 06/03/2014  
 Time Report Requested: 08:42:42  
 First Dose M/F: 09/07/09 / NA  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	0 Vehicle 104 wk	0.02 Furan 104wk	0.044 Furan104wk	0.092 Furan104wk	0.2 Furan 104 wk	0.44 Furan 104wk
Mediastinal, Sinus, Dilatation		4 (6%)	2 (6%)	3 (8%)	1 (4%)	
Pancreatic, Bacterium				1 (3%)		
Pancreatic, Hemorrhage	1 (2%)		1 (3%)			
Pancreatic, Hyperplasia, Lymphoid	5 (8%)	5 (7%)	4 (11%)	2 (5%)	1 (4%)	3 (15%)
Pancreatic, Infiltration Cellular, Histiocyte			1 (3%)			
Pancreatic, Infiltration Cellular, Plasma Cell	6 (10%)	4 (6%)	2 (6%)	4 (11%)	5 (22%)	4 (20%)
Pancreatic, Inflammation, Granulomatous	3 (5%)	3 (4%)	2 (6%)	2 (5%)	1 (4%)	
Pancreatic, Necrosis				1 (3%)		
Pancreatic, Pigmentation			1 (3%)		1 (4%)	
Pancreatic, Sinus, Dilatation		1 (1%)	1 (3%)			
Popliteal, Infiltration Cellular, Plasma Cell		1 (1%)				
Popliteal, Sinus, Dilatation		1 (1%)				
Renal, Hemorrhage	1 (2%)	1 (1%)			1 (4%)	
Renal, Hyperplasia, Lymphoid	4 (7%)	4 (6%)	1 (3%)	1 (3%)	1 (4%)	1 (5%)
Renal, Infiltration Cellular, Plasma Cell	4 (7%)	2 (3%)	3 (9%)	4 (11%)	3 (13%)	2 (10%)
Renal, Inflammation, Granulomatous		2 (3%)				
Renal, Necrosis						
Renal, Pigmentation	2 (3%)	1 (1%)				1 (5%)
Renal, Sinus, Dilatation	4 (7%)	5 (7%)	6 (17%)	6 (16%)	2 (9%)	2 (10%)
Lymph Node, Mandibular	(150)	(150)	(99)	(100)	(50)	(49)
Hemorrhage	7 (5%)	3 (2%)	1 (1%)	3 (3%)		2 (4%)
Hyperplasia, Lymphoid	38 (25%)	31 (21%)	25 (25%)	21 (21%)	9 (18%)	12 (24%)
Infiltration Cellular, Plasma Cell	75 (50%)	73 (49%)	50 (51%)	48 (48%)	23 (46%)	17 (35%)
Necrosis				1 (1%)		
Pigmentation		2 (1%)				
Sinus, Dilatation	34 (23%)	41 (27%)	27 (27%)	22 (22%)	17 (34%)	12 (24%)
Lymph Node, Mesenteric	(147)	(146)	(93)	(97)	(49)	(47)
Hemorrhage	2 (1%)	2 (1%)	1 (1%)	2 (2%)		
Hyperplasia, Lymphoid	42 (29%)	41 (28%)	29 (31%)	23 (24%)	12 (24%)	16 (34%)
Infiltration Cellular, Histiocyte					1 (2%)	
Infiltration Cellular, Mast Cell	1 (1%)					
Infiltration Cellular, Plasma Cell	13 (9%)	11 (8%)	2 (2%)	16 (16%)	4 (8%)	4 (9%)
Inflammation, Granulomatous	4 (3%)	1 (1%)	1 (1%)	3 (3%)	1 (2%)	
Pigmentation	1 (1%)	1 (1%)	1 (1%)	1 (1%)		
Sinus, Dilatation	2 (1%)	1 (1%)	2 (2%)	1 (1%)	1 (2%)	
Spleen	(150)	(149)	(98)	(100)	(50)	(49)

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

Experiment Number: 10119 - 01  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/NCTR

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**  
 Furan  
 CAS Number: 110-00-9

Date Report Requested: 06/03/2014  
 Time Report Requested: 08:42:42  
 First Dose M/F: 09/07/09 / NA  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	0 Vehicle 104 wk	0.02 Furan 104wk	0.044 Furan104wk	0.092 Furan104wk	0.2 Furan 104 wk	0.44 Furan 104wk
Accessory Spleen			1 (1%)			
Atrophy						1 (2%)
Cyst	1 (1%)					
Developmental Malformation	1 (1%)		1 (1%)	1 (1%)		
Fibrosis	7 (5%)	12 (8%)	11 (11%)	15 (15%)	5 (10%)	5 (10%)
Hematopoietic Cell Proliferation	52 (35%)	46 (31%)	35 (36%)	36 (36%)	16 (32%)	13 (27%)
Hemorrhage		1 (1%)			1 (2%)	
Hyperplasia, Lymphoid	5 (3%)	6 (4%)	1 (1%)	3 (3%)	1 (2%)	
Hyperplasia, Stromal		1 (1%)				
Necrosis	3 (2%)	2 (1%)	2 (2%)	3 (3%)	4 (8%)	1 (2%)
Pigmentation	67 (45%)	64 (43%)	43 (44%)	37 (37%)	14 (28%)	18 (37%)
Thrombosis						
Capsule, Fibrosis	2 (1%)	2 (1%)	2 (2%)		2 (4%)	
Thymus	(144)	(149)	(98)	(98)	(49)	(48)
Atrophy	136 (94%)	142 (95%)	93 (95%)	91 (93%)	47 (96%)	45 (94%)
Cyst				1 (1%)		
Hemorrhage	1 (1%)					
Hyperplasia, Lymphoid						
Necrosis				2 (2%)	1 (2%)	
Adventitia, Foreign Body				1 (1%)		
Adventitia, Infiltration Cellular, Polymorphonuclear				2 (2%)	1 (2%)	
Epithelium, Hyperplasia						
<b>INTEGUMENTARY SYSTEM</b>						
Mammary Gland	(150)	(148)	(95)	(100)	(50)	(50)
Abscess						1 (2%)
Fibrosis				1 (1%)		
Galactoceles	75 (50%)	72 (49%)	46 (48%)	45 (45%)	23 (46%)	21 (42%)
Hemorrhage	1 (1%)	1 (1%)			1 (2%)	
Inflammation, Granulomatous	1 (1%)		1 (1%)	1 (1%)		2 (4%)
Inflammation, Chronic				2 (2%)	1 (2%)	
Inflammation, Chronic Active	1 (1%)	1 (1%)	1 (1%)	1 (1%)	1 (2%)	
Pigmentation	1 (1%)					

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

Experiment Number: 10119 - 01  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/NCTR

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**  
 Furan  
 CAS Number: 110-00-9

Date Report Requested: 06/03/2014  
 Time Report Requested: 08:42:42  
 First Dose M/F: 09/07/09 / NA  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	0 Vehicle 104 wk	0.02 Furan 104wk	0.044 Furan104wk	0.092 Furan104wk	0.2 Furan 104 wk	0.44 Furan 104wk
Alveolus, Dilatation	33 (22%)	28 (19%)	15 (16%)	19 (19%)	14 (28%)	10 (20%)
Epithelium, Hyperplasia	9 (6%)	10 (7%)	6 (6%)	9 (9%)	4 (8%)	3 (6%)
Lobular, Hyperplasia	13 (9%)	17 (11%)	13 (14%)	15 (15%)	7 (14%)	4 (8%)
Skin	(150)	(150)	(100)	(99)	(50)	(50)
Abscess	2 (1%)	2 (1%)	1 (1%)		1 (2%)	2 (4%)
Cyst Epithelial Inclusion	4 (3%)	5 (3%)	5 (5%)	1 (1%)	5 (10%)	3 (6%)
Fibrosis	3 (2%)	2 (1%)	1 (1%)	2 (2%)	1 (2%)	
Foreign Body						1 (2%)
Hyperkeratosis	1 (1%)	2 (1%)				
Inflammation, Granulomatous			1 (1%)			
Inflammation, Chronic Active				1 (1%)		
Metaplasia, Osseous						
Ulcer						
Ear, Fibrosis						1 (2%)
Ear, Epithelium, Hyperplasia					1 (2%)	1 (2%)
Ear, Sebaceous Gland, Hyperplasia					1 (2%)	
Epithelium, Hyperplasia	1 (1%)	1 (1%)	1 (1%)			
Tail, Cyst Epithelial Inclusion			2 (2%)			
<b>MUSCULOSKELETAL SYSTEM</b>						
Bone	(5)	(1)	(0)	(0)	(1)	(0)
Rib, Cyst	1 (20%)					
Tibia, Deformity	1 (20%)					
Bone, Femur	(150)	(150)	(100)	(100)	(50)	(50)
Fibrosis				1 (1%)		
Fibrous Osteodystrophy	1 (1%)	1 (1%)	4 (4%)	2 (2%)	1 (2%)	
Osteopetrosis			1 (1%)	1 (1%)		
Skeletal Muscle	(7)	(4)	(2)	(1)	(1)	(1)
Fibrosis	1 (14%)					
Necrosis			1 (50%)			
Diaphragm, Hemorrhage						
Diaphragm, Infiltration Cellular, Polymorphonuclear						
Diaphragm, Necrosis						

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

Experiment Number: 10119 - 01  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/NCTR

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**  
 Furan  
 CAS Number: 110-00-9

Date Report Requested: 06/03/2014  
 Time Report Requested: 08:42:42  
 First Dose M/F: 09/07/09 / NA  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	0 Vehicle 104 wk	0.02 Furan 104wk	0.044 Furan104wk	0.092 Furan104wk	0.2 Furan 104 wk	0.44 Furan 104wk
<b>NERVOUS SYSTEM</b>						
Brain	(0)	(0)	(0)	(0)	(0)	(0)
Meninges, Mineralization						
Brain, Brain Stem	(150)	(150)	(99)	(100)	(50)	(50)
Compression	59 (39%)	62 (41%)	40 (40%)	42 (42%)	20 (40%)	21 (42%)
Hemorrhage	4 (3%)	7 (5%)	2 (2%)	2 (2%)	3 (6%)	4 (8%)
Necrosis	2 (1%)	1 (1%)				1 (2%)
Brain, Cerebellum	(150)	(149)	(99)	(100)	(50)	(50)
Gliosis		1 (1%)				
Hemorrhage	1 (1%)	5 (3%)	2 (2%)	2 (2%)		1 (2%)
Metaplasia, Osseous			1 (1%)			
Mineralization	1 (1%)					
Necrosis	1 (1%)	2 (1%)	1 (1%)		1 (2%)	
Ventricle, Dilatation	2 (1%)	1 (1%)	1 (1%)			
Brain, Cerebrum	(150)	(150)	(99)	(100)	(50)	(50)
Compression						
Cyst	1 (1%)					
Gliosis	2 (1%)	1 (1%)			1 (2%)	
Hemorrhage	3 (2%)	4 (3%)	3 (3%)	1 (1%)	1 (2%)	3 (6%)
Mineralization	1 (1%)	2 (1%)	1 (1%)		1 (2%)	
Necrosis	2 (1%)	1 (1%)			1 (2%)	
Ventricle, Dilatation	18 (12%)	15 (10%)	11 (11%)	13 (13%)	5 (10%)	6 (12%)
Peripheral Nerve	(1)	(1)	(1)	(1)	(0)	(0)
Spinal Cord, Cervical	(1)	(1)	(1)	(1)	(0)	(0)
Hemorrhage				1 (100%)		
Axon, Degeneration				1 (100%)		
Spinal Cord, Lumbar	(1)	(1)	(1)	(1)	(0)	(0)
Axon, Degeneration				1 (100%)		
Spinal Cord, Thoracic	(1)	(1)	(1)	(1)	(0)	(0)
Hemorrhage				1 (100%)		
Axon, Degeneration				1 (100%)		

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

Experiment Number: 10119 - 01  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/NCTR

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**  
 Furan  
 CAS Number: 110-00-9

Date Report Requested: 06/03/2014  
 Time Report Requested: 08:42:42  
 First Dose M/F: 09/07/09 / NA  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	0 Vehicle 104 wk	0.02 Furan 104wk	0.044 Furan104wk	0.092 Furan104wk	0.2 Furan 104 wk	0.44 Furan 104wk
<b>RESPIRATORY SYSTEM</b>						
Lung	(150)	(149)	(99)	(100)	(50)	(50)
Bacterium				1 (1%)		
Congestion		1 (1%)		2 (2%)		
Crystals	1 (1%)				1 (2%)	
Fibrosis				1 (1%)		
Hemorrhage	4 (3%)	3 (2%)	3 (3%)	2 (2%)	1 (2%)	1 (2%)
Histiocytosis	1 (1%)			1 (1%)		
Infiltration Cellular, Histiocyte	35 (23%)	29 (19%)	16 (16%)	18 (18%)	13 (26%)	13 (26%)
Inflammation, Suppurative	2 (1%)	2 (1%)		2 (2%)		
Inflammation, Chronic	1 (1%)	1 (1%)		2 (2%)		
Inflammation, Chronic Active	2 (1%)	1 (1%)	1 (1%)	1 (1%)		
Metaplasia, Osseous	3 (2%)					
Mineralization						
Necrosis	1 (1%)	2 (1%)	1 (1%)	1 (1%)		
Pigmentation	1 (1%)	3 (2%)				
Polyarteritis	1 (1%)	1 (1%)		1 (1%)		
Thrombosis					1 (2%)	
Alveolar Epithelium, Hyperplasia	3 (2%)	2 (1%)	2 (2%)	1 (1%)		2 (4%)
Bronchiole, Epithelium, Hyperplasia			1 (1%)			
Mediastinum, Fibrosis					1 (2%)	
Mediastinum, Hemorrhage						
Mediastinum, Inflammation, Suppurative					3 (6%)	
Mediastinum, Inflammation, Chronic Active	1 (1%)					
Mediastinum, Necrosis				1 (1%)	3 (6%)	
Pleura, Bacterium				1 (1%)	1 (2%)	
Pleura, Foreign Body				1 (1%)	1 (2%)	
Pleura, Hemorrhage				1 (1%)	1 (2%)	
Pleura, Infiltration Cellular, Polymorphonuclear				1 (1%)		
Pleura, Inflammation, Suppurative				1 (1%)	1 (2%)	
Pleura, Inflammation, Chronic				1 (1%)		
Pleura, Necrosis				2 (2%)	1 (2%)	
Nose	(149)	(146)	(96)	(97)	(48)	(48)
Cyst						
Foreign Body	11 (7%)	16 (11%)	9 (9%)	6 (6%)	5 (10%)	5 (10%)

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



Experiment Number: 10119 - 01  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/NCTR

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**  
 Furan  
 CAS Number: 110-00-9

Date Report Requested: 06/03/2014  
 Time Report Requested: 08:42:42  
 First Dose M/F: 09/07/09 / NA  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	0 Vehicle 104 wk	0.02 Furan 104wk	0.044 Furan104wk	0.092 Furan104wk	0.2 Furan 104 wk	0.44 Furan 104wk
Inflammation, Suppurative Necrosis	19 (13%)	26 (18%)	18 (19%)	12 (12%) 1 (1%)	10 (21%)	7 (15%)
Osteopetrosis			1 (1%)	1 (1%)		
Goblet Cell, Hyperplasia	3 (2%)	2 (1%)	1 (1%)			
Trachea	(150)	(150)	(99)	(100)	(50)	(50)
Inflammation, Suppurative Necrosis		1 (1%)		1 (1%) 1 (1%)		1 (2%)
Epithelium, Erosion						1 (2%)

**SPECIAL SENSES SYSTEM**

Ear	(1)	(0)	(3)	(0)	(1)	(0)
Eye	(144)	(143)	(92)	(96)	(48)	(45)
Cataract	1 (1%)	2 (1%)	3 (3%)	4 (4%)	2 (4%)	4 (9%)
Hemorrhage						
Inflammation, Suppurative		1 (1%)				
Metaplasia, Osseous				1 (1%)		
Retinal Detachment				1 (1%)		
Adventitia, Inflammation, Suppurative			1 (1%)			
Cornea, Inflammation, Suppurative	1 (1%)					
Cornea, Ulcer	1 (1%)					
Optic Nerve, Degeneration						
Retina, Degeneration	10 (7%)	7 (5%)	4 (4%)	8 (8%)	4 (8%)	5 (11%)
Harderian Gland	(150)	(150)	(99)	(100)	(50)	(49)
Foreign Body			1 (1%)			
Infiltration Cellular, Lymphocyte	6 (4%)	6 (4%)	2 (2%)	5 (5%)	1 (2%)	1 (2%)
Inflammation, Suppurative		1 (1%)	1 (1%)			
Inflammation, Chronic Active					1 (2%)	
Polyarteritis	1 (1%)					
Acinus, Degeneration	1 (1%)	6 (4%)	3 (3%)	2 (2%)	1 (2%)	
Acinus, Hyperplasia	1 (1%)			1 (1%)		
Epithelium, Hyperplasia	1 (1%)	1 (1%)				
Zymbal's Gland	(6)	(3)	(2)	(3)	(0)	(1)
Abscess	1 (17%)					
Inflammation, Suppurative	2 (33%)	1 (33%)				

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

Experiment Number: 10119 - 01  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/NCTR

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**  
 Furan  
 CAS Number: 110-00-9

Date Report Requested: 06/03/2014  
 Time Report Requested: 08:42:42  
 First Dose M/F: 09/07/09 / NA  
 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	0 Vehicle 104 wk	0.02 Furan 104wk	0.044 Furan104wk	0.092 Furan104wk	0.2 Furan 104 wk	0.44 Furan 104wk
Keratin Cyst	1 (17%)					
<b>URINARY SYSTEM</b>						
Kidney	(150)	(150)	(99)	(100)	(50)	(49)
Casts Protein	1 (1%)					
Cyst	4 (3%)	7 (5%)	1 (1%)	1 (1%)	2 (4%)	2 (4%)
Hydronephrosis	12 (8%)	15 (10%)	8 (8%)	10 (10%)	8 (16%)	5 (10%)
Infarct		1 (1%)				
Inflammation, Suppurative						1 (2%)
Mineralization						
Necrosis	1 (1%)	1 (1%)				
Nephropathy	148 (99%)	147 (98%)	98 (99%)	99 (99%)	49 (98%)	49 (100%)
Pigmentation	3 (2%)	2 (1%)		2 (2%)		1 (2%)
Polyarteritis		1 (1%)				
Polycystic Kidney			1 (1%)			
Thrombosis						
Capsule, Fibrosis		1 (1%)				
Pelvis, Inflammation, Suppurative	1 (1%)	3 (2%)		1 (1%)	1 (2%)	2 (4%)
Renal Tubule, Degeneration		3 (2%)				
Renal Tubule, Dilatation		1 (1%)				
Transitional Epithelium, Hyperplasia	27 (18%)	39 (26%)	25 (25%)	23 (23%)	14 (28%)	9 (18%)
Urethra	(0)	(2)	(0)	(1)	(0)	(0)
Bulbourethral Gland, Inflammation, Suppurative		1 (50%)				
Lumen, Dilatation		1 (50%)				
Urinary Bladder	(150)	(150)	(99)	(100)	(50)	(48)
Hemorrhage		1 (1%)	1 (1%)			
Inflammation, Suppurative		1 (1%)				
Inflammation, Chronic				1 (1%)		
Inflammation, Chronic Active		2 (1%)			1 (2%)	
Lumen, Dilatation	11 (7%)	14 (9%)	3 (3%)	10 (10%)	3 (6%)	4 (8%)
Serosa, Inflammation, Chronic Active				1 (1%)	1 (2%)	
Transitional Epithelium, Hyperplasia	2 (1%)	8 (5%)	4 (4%)	3 (3%)	1 (2%)	2 (4%)

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

Experiment Number: 10119 - 01  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/NCTR

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)  
 Furan  
 CAS Number: 110-00-9

Date Report Requested: 06/03/2014  
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 First Dose M/F: 09/07/09 / NA  
 Lab: NCTR

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FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
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## Disposition Summary

Animals Initially In Study	50	50
Early Deaths		
Accidentally Killed		
Moribund Sacrifice	29	22
Natural Death		5
Survivors		
Moribund Sacrifice	9	15
Natural Death		
Terminal Sacrifice	12	8
Animals Examined Microscopically	50	50

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## ALIMENTARY SYSTEM

Esophagus	(50)	(50)
Bacterium		
Hemorrhage		
Inflammation, Suppurative		
Necrosis		
Perforation		
Ulcer		
Lumen, Dilatation		
Periesophageal Tissue, Foreign Body		1 (2%)
Periesophageal Tissue, Hemorrhage		1 (2%)
Periesophageal Tissue, Infiltration Cellular, Polymorphonuclear		1 (2%)
Periesophageal Tissue, Necrosis		
Intestine Large, Cecum	(50)	(46)
Edema		
Hemorrhage		1 (2%)
Inflammation, Suppurative		
Ulcer		
Lumen, Dilatation		
Mucosa, Hyperplasia		1 (2%)
Intestine Large, Colon	(50)	(46)

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

FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
Edema		
Inflammation, Chronic Active	1 (2%)	
Necrosis		
Ulcer	1 (2%)	
Epithelium, Cyst		1 (2%)
Mucosa, Hyperplasia		2 (4%)
Serosa, Inflammation, Chronic Active		
Intestine Large, Rectum	(50)	(48)
Anus, Inflammation, Chronic		
Mucosa, Hyperplasia		2 (4%)
Intestine Small, Duodenum	(50)	(47)
Inflammation, Suppurative		
Inflammation, Chronic Active		
Necrosis		
Ulcer		
Mucosa, Hyperplasia		4 (9%)
Intestine Small, Ileum	(49)	(46)
Necrosis		
Mucosa, Hyperplasia		2 (4%)
Intestine Small, Jejunum	(50)	(46)
Edema		
Infiltration Cellular, Polymorphonuclear		
Inflammation, Chronic Active		
Mucosa, Hyperplasia		
Serosa, Hemorrhage		
Serosa, Necrosis		
Liver	(50)	(49)
Angiectasis	1 (2%)	1 (2%)
Basophilic Focus	10 (20%)	21 (43%)
Cholangiofibrosis	47 (94%)	49 (100%)
Clear Cell Focus	7 (14%)	6 (12%)
Congestion		1 (2%)
Deformity	1 (2%)	1 (2%)
Degeneration, Cystic	10 (20%)	17 (35%)
Eosinophilic Focus	2 (4%)	7 (14%)
Fibrosis		

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

Experiment Number: 10119 - 01  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/NCTR

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

FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
Granuloma	11 (22%)	8 (16%)
Hematopoietic Cell Proliferation	1 (2%)	
Hemorrhage	2 (4%)	1 (2%)
Hepatodiaphragmatic Nodule		2 (4%)
Hyperplasia, Regenerative	7 (14%)	12 (24%)
Inflammation, Suppurative		
Inflammation, Chronic Active		1 (2%)
Mixed Cell Focus	6 (12%)	13 (27%)
Pigmentation		1 (2%)
Polyarteritis		
Tension Lipidosis	1 (2%)	
Thrombosis	3 (6%)	1 (2%)
Vacuolization Cytoplasmic	23 (46%)	37 (76%)
Bile Duct, Biliary Tract, Cyst Multilocular		
Bile Duct, Biliary Tract, Hyperplasia	32 (64%)	43 (88%)
Bile Duct, Subcapsular, Hyperplasia	1 (2%)	
Capsule, Fibrosis		
Capsule, Infiltration Cellular, Polymorphonuclear		
Capsule, Inflammation, Chronic Active		
Capsule, Necrosis		
Capsule, Pigmentation		
Centrilobular, Hepatocyte, Degeneration	20 (40%)	19 (39%)
Centrilobular, Hepatocyte, Necrosis		
Hepatocyte, Hypertrophy	2 (4%)	5 (10%)
Hepatocyte, Necrosis	5 (10%)	4 (8%)
Hepatocyte, Periportal, Degeneration		
Oval Cell, Hyperplasia	14 (28%)	33 (67%)
Periportal, Cytoplasmic Alteration	3 (6%)	
Periportal, Vacuolization Cytoplasmic	3 (6%)	3 (6%)
Subcapsular, Fibrosis	1 (2%)	
Subcapsular, Inflammation, Chronic	1 (2%)	
Subcapsular, Pigmentation	1 (2%)	
Mesentery	(14)	(10)
Accessory Spleen		
Cyst		

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

**Experiment Number:** 10119 - 01  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/NCTR

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**  
 Furan  
**CAS Number:** 110-00-9

**Date Report Requested:** 06/03/2014  
**Time Report Requested:** 08:42:42  
**First Dose M/F:** 09/07/09 / NA  
**Lab:** NCTR

FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
Inflammation, Granulomatous		
Inflammation, Chronic Active		
Mineralization	1 (7%)	
Pigmentation		
Fat, Hemorrhage		
Fat, Necrosis	11 (79%)	9 (90%)
Oral Mucosa	(0)	(0)
Hemorrhage		
Inflammation, Chronic Active		
Epithelium, Hyperplasia		
Gingival, Ulcer		
Pancreas	(50)	(50)
Edema		
Infiltration Cellular, Lymphocyte	1 (2%)	
Inflammation, Chronic Active		
Necrosis		1 (2%)
Pigmentation		
Polyarteritis	1 (2%)	
Acinar Cell, Hyperplasia	7 (14%)	8 (16%)
Acinus, Degeneration	14 (28%)	7 (14%)
Artery, Fibrosis	1 (2%)	
Artery, Hyperplasia		
Salivary Glands	(50)	(50)
Infiltration Cellular, Lymphocyte		
Acinar Cell, Hyperplasia		
Acinus, Degeneration	1 (2%)	
Stomach, Forestomach	(50)	(48)
Edema	9 (18%)	15 (31%)
Fibrosis		
Hyperplasia, Basal Cell		1 (2%)
Inflammation, Chronic Active	13 (26%)	19 (40%)
Necrosis	1 (2%)	
Perforation	2 (4%)	3 (6%)
Ulcer	5 (10%)	9 (19%)
Epithelium, Hyperplasia	15 (30%)	21 (44%)
Serosa, Fibrosis		2 (4%)

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

Experiment Number: 10119 - 01  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/NCTR

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**  
 Furan  
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Date Report Requested: 06/03/2014  
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 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
Serosa, Inflammation, Suppurative		
Serosa, Inflammation, Chronic Active		
Serosa, Necrosis		1 (2%)
Stomach, Glandular	(50)	(48)
Edema	1 (2%)	1 (2%)
Inflammation, Chronic Active	1 (2%)	1 (2%)
Mineralization	1 (2%)	1 (2%)
Necrosis		1 (2%)
Ulcer		
Mucosa, Hyperplasia	1 (2%)	5 (10%)
Tongue	(0)	(0)
Foreign Body		
Inflammation, Chronic Active		
Epithelium, Hyperplasia		

**CARDIOVASCULAR SYSTEM**

Blood Vessel	(50)	(50)
Hemorrhage		
Inflammation, Chronic		
Mineralization	1 (2%)	
Heart	(50)	(50)
Cardiomyopathy	45 (90%)	44 (88%)
Congestion		
Foreign Body	1 (2%)	
Hemorrhage		
Inflammation, Granulomatous	1 (2%)	
Inflammation, Chronic Active		
Metaplasia, Osseous		
Mineralization	2 (4%)	1 (2%)
Pigmentation		
Thrombosis	13 (26%)	3 (6%)
Atrium, Dilatation		
Myocardium, Necrosis		
Pericardium, Fibrosis		

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Experiment Number: 10119 - 01  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/NCTR

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

FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
Pericardium, Hemorrhage	1 (2%)	
Pericardium, Infiltration Cellular, Polymorphonuclear	1 (2%)	
Pericardium, Inflammation, Suppurative		
Pericardium, Inflammation, Chronic Active	1 (2%)	
Pericardium, Necrosis	1 (2%)	
Ventricle, Dilatation		

**ENDOCRINE SYSTEM**

Adrenal Cortex	(50)	(50)
Accessory Adrenal Cortical Nodule	1 (2%)	2 (4%)
Angiectasis		1 (2%)
Atrophy		
Cyst		
Fibrosis		
Hyperplasia		
Hypertrophy	2 (4%)	1 (2%)
Metaplasia, Osseous	1 (2%)	
Necrosis		1 (2%)
Pigmentation		
Polyarteritis		
Thrombosis		
Vacuolization Cytoplasmic	35 (70%)	40 (80%)
Capsule, Fibrosis		1 (2%)
Adrenal Medulla	(50)	(50)
Fibrosis		
Hemorrhage		
Hyperplasia	19 (38%)	21 (42%)
Mineralization		
Necrosis		
Thrombosis		
Islets, Pancreatic	(50)	(50)
Angiectasis		
Hyperplasia	1 (2%)	3 (6%)

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 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
Necrosis		1 (2%)
Parathyroid Gland	(50)	(50)
Angiectasis		
Fibrosis	1 (2%)	
Hyperplasia	7 (14%)	19 (38%)
Pituitary Gland	(50)	(50)
Hemorrhage		3 (6%)
Pigmentation		
Pars Distalis, Angiectasis		
Pars Distalis, Cyst	4 (8%)	1 (2%)
Pars Distalis, Hyperplasia	12 (24%)	12 (24%)
Pars Distalis, Necrosis		
Pars Intermedia, Cyst		
Pars Intermedia, Hyperplasia	1 (2%)	
Pars Nervosa, Cyst		
Pars Nervosa, Hyperplasia		
Rathke's Cleft, Cyst		
Thyroid Gland	(50)	(50)
Cyst		
Ectopic Thymus		
Fibrosis		
Ultimobranchial Cyst		
C-cell, Hyperplasia	27 (54%)	28 (56%)
Follicle, Cyst	3 (6%)	7 (14%)
Follicular Cell, Hyperplasia		2 (4%)

GENERAL BODY SYSTEM

Peritoneum	(1)	(1)
Pigmentation		
Tissue NOS	(3)	(0)
Hemorrhage		
Inflammation, Suppurative		
Necrosis	1 (33%)	
Mediastinum, Bacterium	1 (33%)	

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

Experiment Number: 10119 - 01  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/NCTR

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

FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
Mediastinum, Foreign Body	1 (33%)	
Mediastinum, Hemorrhage	2 (67%)	
Mediastinum, Inflammation, Suppurative	1 (33%)	
Mediastinum, Inflammation, Chronic	1 (33%)	
Mediastinum, Necrosis	2 (67%)	

GENITAL SYSTEM

Ductus Deferens	(0)	(0)
Epididymis	(50)	(50)
Degeneration, Cystic		
Edema		1 (2%)
Exfoliated Germ Cell	18 (36%)	14 (28%)
Fibrosis		
Hypospermia	27 (54%)	26 (52%)
Epithelium, Degeneration	25 (50%)	26 (52%)
Fat, Necrosis		
Lumen, Dilatation		
Mesothelium, Hyperplasia	1 (2%)	1 (2%)
Preputial Gland	(50)	(50)
Abscess	2 (4%)	6 (12%)
Edema		
Fibrosis	24 (48%)	21 (42%)
Hyperkeratosis	1 (2%)	
Infiltration Cellular, Lymphocyte		
Inflammation, Suppurative	24 (48%)	24 (48%)
Inflammation, Chronic Active	19 (38%)	18 (36%)
Necrosis		1 (2%)
Ulcer		
Acinus, Degeneration		
Acinus, Hyperplasia	1 (2%)	1 (2%)
Duct, Ectasia	28 (56%)	29 (58%)
Epithelium, Hyperplasia		
Prostate	(50)	(50)
Abscess		

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Species/Strain: RATS/F 344/NCTR

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**  
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FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
Atrophy	7 (14%)	10 (20%)
Degeneration, Cystic	4 (8%)	1 (2%)
Fibrosis	2 (4%)	1 (2%)
Infiltration Cellular, Lymphocyte		
Inflammation, Suppurative	33 (66%)	36 (72%)
Inflammation, Chronic Active	5 (10%)	3 (6%)
Mineralization		
Pigmentation		
Polyarteritis		1 (2%)
Epithelium, Hyperplasia	8 (16%)	14 (28%)
Seminal Vesicle	(50)	(48)
Atrophy	18 (36%)	17 (35%)
Edema		
Fibrosis		
Inflammation, Suppurative		
Inflammation, Chronic Active		
Adventitia, Inflammation, Suppurative		
Epithelium, Hyperplasia		
Lumen, Dilatation	3 (6%)	5 (10%)
Serosa, Inflammation, Chronic Active		
Testes	(50)	(50)
Mineralization		3 (6%)
Polyarteritis	8 (16%)	12 (24%)
Interstitial Cell, Hyperplasia	28 (56%)	26 (52%)
Seminiferous Tubule, Degeneration	33 (66%)	37 (74%)

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**HEMATOPOIETIC SYSTEM**

Bone Marrow	(50)	(49)
Fibrosis		
Hyperplasia, Megakaryocyte		1 (2%)
Hypocellularity		
Myelostromal Proliferation		
Myeloid Cell, Hyperplasia	15 (30%)	21 (43%)
Lymph Node	(26)	(33)

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 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
Hyperplasia, Lymphoid		
Infiltration Cellular, Plasma Cell	1 (4%)	
Inflammation, Granulomatous	1 (4%)	
Axillary, Hemorrhage		
Axillary, Hyperplasia, Lymphoid		
Axillary, Infiltration Cellular, Plasma Cell		
Axillary, Necrosis		1 (3%)
Cervical, Hemorrhage		
Cervical, Hyperplasia, Lymphoid		
Cervical, Infiltration Cellular, Plasma Cell		
Deep Cervical, Necrosis		1 (3%)
Hepatic, Hyperplasia, Lymphoid		2 (6%)
Hepatic, Infiltration Cellular, Plasma Cell		
Hepatic, Inflammation, Granulomatous		1 (3%)
Hepatic, Necrosis		1 (3%)
Hepatic, Sinus, Dilatation		2 (6%)
Inguinal, Hyperplasia, Lymphoid		
Inguinal, Infiltration Cellular, Plasma Cell		1 (3%)
Inguinal, Infiltration Cellular, Polymorphonuclear		
Lumbar, Hemorrhage		
Lumbar, Hyperplasia, Lymphoid		1 (3%)
Lumbar, Infiltration Cellular, Histiocyte		
Lumbar, Infiltration Cellular, Plasma Cell	1 (4%)	2 (6%)
Lumbar, Infiltration Cellular, Polymorphonuclear		
Lumbar, Necrosis		1 (3%)
Lumbar, Pigmentation		
Lumbar, Sinus, Dilatation	3 (12%)	3 (9%)
Mediastinal, Congestion		
Mediastinal, Erythrophagocytosis		
Mediastinal, Hemorrhage		1 (3%)
Mediastinal, Hyperplasia, Lymphoid		
Mediastinal, Infiltration Cellular, Plasma Cell		
Mediastinal, Necrosis		1 (3%)
Mediastinal, Pigmentation	1 (4%)	

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Experiment Number: 10119 - 01  
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 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
Mediastinal, Sinus, Dilatation		1 (3%)
Pancreatic, Bacterium		
Pancreatic, Hemorrhage	1 (4%)	
Pancreatic, Hyperplasia, Lymphoid	6 (23%)	6 (18%)
Pancreatic, Infiltration Cellular, Histiocyte		
Pancreatic, Infiltration Cellular, Plasma Cell	4 (15%)	6 (18%)
Pancreatic, Inflammation, Granulomatous		
Pancreatic, Necrosis		1 (3%)
Pancreatic, Pigmentation		
Pancreatic, Sinus, Dilatation		4 (12%)
Popliteal, Infiltration Cellular, Plasma Cell		1 (3%)
Popliteal, Sinus, Dilatation		1 (3%)
Renal, Hemorrhage		
Renal, Hyperplasia, Lymphoid		3 (9%)
Renal, Infiltration Cellular, Plasma Cell		4 (12%)
Renal, Inflammation, Granulomatous		
Renal, Necrosis		1 (3%)
Renal, Pigmentation		
Renal, Sinus, Dilatation	2 (8%)	6 (18%)
Lymph Node, Mandibular	(50)	(50)
Hemorrhage		
Hyperplasia, Lymphoid	15 (30%)	13 (26%)
Infiltration Cellular, Plasma Cell	18 (36%)	22 (44%)
Necrosis	1 (2%)	1 (2%)
Pigmentation		
Sinus, Dilatation	16 (32%)	15 (30%)
Lymph Node, Mesenteric	(50)	(50)
Hemorrhage		
Hyperplasia, Lymphoid	15 (30%)	6 (12%)
Infiltration Cellular, Histiocyte		
Infiltration Cellular, Mast Cell		
Infiltration Cellular, Plasma Cell	3 (6%)	3 (6%)
Inflammation, Granulomatous		1 (2%)
Pigmentation		
Sinus, Dilatation	1 (2%)	1 (2%)
Spleen	(50)	(50)

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 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
Accessory Spleen		
Atrophy		
Cyst		
Developmental Malformation		
Fibrosis	2 (4%)	2 (4%)
Hematopoietic Cell Proliferation	13 (26%)	22 (44%)
Hemorrhage	1 (2%)	1 (2%)
Hyperplasia, Lymphoid		
Hyperplasia, Stromal		
Necrosis	2 (4%)	1 (2%)
Pigmentation	14 (28%)	12 (24%)
Thrombosis		1 (2%)
Capsule, Fibrosis	1 (2%)	1 (2%)
Thymus	(50)	(49)
Atrophy	43 (86%)	42 (86%)
Cyst		1 (2%)
Hemorrhage		
Hyperplasia, Lymphoid	1 (2%)	
Necrosis	2 (4%)	1 (2%)
Adventitia, Foreign Body		
Adventitia, Infiltration Cellular, Polymorphonuclear	1 (2%)	
Epithelium, Hyperplasia	1 (2%)	

**INTEGUMENTARY SYSTEM**

Mammary Gland	(48)	(50)
Abscess		
Fibrosis		
Galactocele	18 (38%)	24 (48%)
Hemorrhage		
Inflammation, Granulomatous		
Inflammation, Chronic		
Inflammation, Chronic Active		
Pigmentation		

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 Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
Alveolus, Dilatation	12 (25%)	15 (30%)
Epithelium, Hyperplasia	1 (2%)	
Lobular, Hyperplasia	1 (2%)	4 (8%)
Skin	(50)	(50)
Abscess		
Cyst Epithelial Inclusion	1 (2%)	6 (12%)
Fibrosis	1 (2%)	
Foreign Body		
Hyperkeratosis		1 (2%)
Inflammation, Granulomatous		
Inflammation, Chronic Active	1 (2%)	
Metaplasia, Osseous		1 (2%)
Ulcer	1 (2%)	
Ear, Fibrosis		
Ear, Epithelium, Hyperplasia		
Ear, Sebaceous Gland, Hyperplasia		
Epithelium, Hyperplasia		1 (2%)
Tail, Cyst Epithelial Inclusion		

**MUSCULOSKELETAL SYSTEM**

Bone	(0)	(0)
Rib, Cyst		
Tibia, Deformity		
Bone, Femur	(50)	(50)
Fibrosis		
Fibrous Osteodystrophy	1 (2%)	3 (6%)
Osteopetrosis		
Skeletal Muscle	(2)	(0)
Fibrosis		
Necrosis		
Diaphragm, Hemorrhage	1 (50%)	
Diaphragm, Infiltration Cellular, Polymorphonuclear	1 (50%)	
Diaphragm, Necrosis	1 (50%)	

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

Experiment Number: 10119 - 01  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/NCTR

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)  
Furan  
CAS Number: 110-00-9

Date Report Requested: 06/03/2014  
Time Report Requested: 08:42:42  
First Dose M/F: 09/07/09 / NA  
Lab: NCTR

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FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
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NERVOUS SYSTEM

Brain	(1)	(0)
Meninges, Mineralization	1 (100%)	
Brain, Brain Stem	(50)	(50)
Compression	13 (26%)	23 (46%)
Hemorrhage		2 (4%)
Necrosis		
Brain, Cerebellum	(50)	(50)
Gliosis		
Hemorrhage		1 (2%)
Metaplasia, Osseous		
Mineralization		
Necrosis		
Ventricle, Dilatation		
Brain, Cerebrum	(50)	(50)
Compression	1 (2%)	
Cyst		
Gliosis		
Hemorrhage		3 (6%)
Mineralization	1 (2%)	
Necrosis		
Ventricle, Dilatation	2 (4%)	3 (6%)
Peripheral Nerve	(0)	(0)
Spinal Cord, Cervical	(0)	(0)
Hemorrhage		
Axon, Degeneration		
Spinal Cord, Lumbar	(0)	(0)
Axon, Degeneration		
Spinal Cord, Thoracic	(0)	(0)
Hemorrhage		
Axon, Degeneration		

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FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
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RESPIRATORY SYSTEM

Lung	(50)	(50)
Bacterium		
Congestion	1 (2%)	2 (4%)
Crystals		
Fibrosis		
Hemorrhage	4 (8%)	1 (2%)
Histiocytosis	1 (2%)	
Infiltration Cellular, Histiocyte	15 (30%)	17 (34%)
Inflammation, Suppurative		
Inflammation, Chronic	1 (2%)	1 (2%)
Inflammation, Chronic Active	1 (2%)	
Metaplasia, Osseous		
Mineralization	1 (2%)	
Necrosis	1 (2%)	
Pigmentation		
Polyarteritis		
Thrombosis		
Alveolar Epithelium, Hyperplasia	2 (4%)	3 (6%)
Bronchiole, Epithelium, Hyperplasia		
Mediastinum, Fibrosis		
Mediastinum, Hemorrhage	1 (2%)	
Mediastinum, Inflammation, Suppurative	1 (2%)	
Mediastinum, Inflammation, Chronic Active		
Mediastinum, Necrosis	1 (2%)	
Pleura, Bacterium		
Pleura, Foreign Body		
Pleura, Hemorrhage		
Pleura, Infiltration Cellular, Polymorphonuclear		
Pleura, Inflammation, Suppurative		
Pleura, Inflammation, Chronic		
Pleura, Necrosis		
Nose	(50)	(48)
Cyst	1 (2%)	
Foreign Body	6 (12%)	7 (15%)

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FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
Inflammation, Suppurative Necrosis Osteopetrosis Goblet Cell, Hyperplasia	9 (18%)	9 (19%)
Trachea Inflammation, Suppurative Necrosis Epithelium, Erosion	(50)	(50)

SPECIAL SENSES SYSTEM

Ear	(0)	(0)
Eye	(50)	(47)
Cataract	1 (2%)	6 (13%)
Hemorrhage		1 (2%)
Inflammation, Suppurative Metaplasia, Osseous Retinal Detachment Adventitia, Inflammation, Suppurative Cornea, Inflammation, Suppurative Cornea, Ulcer		
Optic Nerve, Degeneration		1 (2%)
Retina, Degeneration	3 (6%)	6 (13%)
Harderian Gland	(50)	(50)
Foreign Body		
Infiltration Cellular, Lymphocyte	3 (6%)	1 (2%)
Inflammation, Suppurative Inflammation, Chronic Active Polyarteritis		
Acinus, Degeneration		1 (2%)
Acinus, Hyperplasia Epithelium, Hyperplasia		
Zymbal's Gland	(1)	(1)
Abscess		
Inflammation, Suppurative	1 (100%)	

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FISCHER 344 RATS-NCTR RATS MALE	0.92 Furan 104wk	2 Furan 104 wk
Keratin Cyst		1 (100%)
<b>URINARY SYSTEM</b>		
Kidney	(50)	(50)
Casts Protein		
Cyst	2 (4%)	3 (6%)
Hydronephrosis	7 (14%)	7 (14%)
Infarct		
Inflammation, Suppurative		
Mineralization		1 (2%)
Necrosis	1 (2%)	
Nephropathy	49 (98%)	49 (98%)
Pigmentation		
Polyarteritis		
Polycystic Kidney		
Thrombosis	1 (2%)	
Capsule, Fibrosis		
Pelvis, Inflammation, Suppurative		1 (2%)
Renal Tubule, Degeneration		
Renal Tubule, Dilatation		
Transitional Epithelium, Hyperplasia	12 (24%)	19 (38%)
Urethra	(0)	(0)
Bulbourethral Gland, Inflammation, Suppurative		
Lumen, Dilatation		
Urinary Bladder	(50)	(50)
Hemorrhage		
Inflammation, Suppurative		
Inflammation, Chronic		
Inflammation, Chronic Active	1 (2%)	
Lumen, Dilatation	1 (2%)	3 (6%)
Serosa, Inflammation, Chronic Active		
Transitional Epithelium, Hyperplasia	2 (4%)	2 (4%)

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**FISCHER 344 RATS-NCTR RATS MALE**

**0.92 Furan 104wk**

**2 Furan 104 wk**

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\*\*\* END OF REPORT \*\*\*

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