**TDMS No.** 99024 - 07

Test Type: CHRONIC

Species/Strain: RATS/F 344

Route: GAVAGE

#### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Androstenedione

**CAS Number:** 63-05-8

F1\_R2

C Number: C99024C

**Lock Date:** 06/29/2006

Cage Range: ALL

Date Range: ALL

**Reasons For Removal:** ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

Study Gender: Both

**TDMSE Version:** 2.0.0

Date Report Requested: 08/08/2008

Time Report Requested: 08:20:33 First Dose M/F: 02/03/03 / 02/03/03

Species/Strain: RATS/F 344

Route: GAVAGE

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Androstenedione

**CAS Number:** 63-05-8

Time Report Requested: 08:20:33 First Dose M/F: 02/03/03 / 02/03/03

Date Report Requested: 08/08/2008

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	50 MG/KG
Disposition Summary				
Animals Initially in Study	50	50	50	50
Early Deaths Moribund Sacrifice	22	9	17	13
Natural Death	7	8	4	10
Survivors	•	· ·	·	10
Natural Death	1			
Terminal Sacrifice	20	33	29	27
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(50)	(50)	(50)	(50)
Foreign Body	1 [2.0]	(00)	(00)	(00)
Inflammation, Suppurative	1 [3.0]			
Intestine Large, Cecum	(47)	(46)	(47)	(48)
Edema			1 [3.0]	
Intestine Large, Colon	(44)	(43)	(47)	(44)
Edema	2 [3.5]	1 [3.0]	4 [3.0]	
Fibrosis	1 [2.0]	4.5		
Intestine Large, Rectum	(46)	(46)	(47)	(47)
Hemorrhage	(40)	(47)	1 [3.0]	(47)
Intestine Small, Duodenum	(48)	(47)	(49)	(47)
Hemorrhage Intestine Small, Ileum	(44)	(46)	1 [1.0] (47)	(44)
Intestine Small, Jejunum	(44)	(44)	(47)	(42)
Hemorrhage	( + + )	(77)	1 [3.0]	(74)
Liver	(50)	(50)	(50)	(50)
Angiectasis	(/	1 [2.0]	(/	1 [2.0]
Basophilic Focus	17	29	29	33
Clear Cell Focus	13	21	23	14
Clear Cell Focus, Multiple				3
Degeneration, Cystic	10 [1.6]	3 [2.0]	12 [1.6]	7 [1.6]
Eosinophilic Focus	3	10	7	13
Hematopoietic Cell Proliferation		1 [2.0]	4 [4 0]	
Hemorrhage	7 [0 0]	10.01.0	1 [4.0]	40 [2 0]
Hepatodiaphragmatic Nodule	7 [2.2]	8 [2.0]	7 [2.2]	10 [2.0]

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Species/Strain: RATS/F 344

Route: GAVAGE

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Androstenedione

**CAS Number:** 63-05-8

Time Report Requested: 08:20:33

First Dose M/F: 02/03/03 / 02/03/03

Date Report Requested: 08/08/2008

SISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	50 MG/KG	
Infiltration Cellular, Mixed Cell	10 [1.0]	3 [1.3]	11 [1.1]	4 [1.5]	
Inflammation, Chronic	1 [1.0]			[ -1	
Mixed Cell Focus	1	2	1	4	
Necrosis, Focal	4 [2.0]		1 [2.0]	1 [2.0]	
Tension Lipidosis	1 [2.0]		,	1	
Thrombosis			1 [4.0]		
Bile Duct, Hyperplasia	44 [1.8]	44 [1.8]	40 [1.7]	43 [1.6]	
Hepatocyte, Hyperplasia	1 [3.0]	[]	2 [2.0]	2 [2.5]	
Hepatocyte, Vacuolization Cytoplasmic	25 [1.8]	18 [1.9]	14 [2.1]	9 [1.4]	
Kupffer Cell, Pigmentation	1 [1.0]	[]	[]	- [····]	
Mesentery	(18)	(13)	(12)	(18)	
Accessory Spleen	4 [2.0]	1 [3.0]	( · <del>-</del> /	3 [2.0]	
Hemorrhage	. [=.0]	1 [2.0]		2 [0]	
Inflammation, Suppurative	1 [2.0]	. [=.0]			
Inflammation, Granulomatous	1 [2.0]				
Fat, Necrosis	13 [2.2]	10 [2.3]	10 [2.2]	15 [2.2]	
Pancreas	(50)	(50)	(50)	(50)	
Atrophy	17 [1.9]	30 [2.0]	19 [1.8]	21 [1.7]	
Cyst	5 [2.4]	3 [1.7]	7 [2.1]	2.[]	
Infiltration Cellular, Lymphocyte	0 [2.1]	0[]	. [=]	1 [1.0]	
Acinus, Cytoplasmic Alteration	4 [2.5]	3 [2.7]	2 [3.0]	2 [3.0]	
Acinus, Hyperplasia, Focal	1 [2.0]	3 [2.3]	3 [1.7]	2 [2.5]	
Arteriole, Inflammation, Chronic	. [2.0]	1 [2.0]	0[]	2 [2.0]	
Salivary Glands	(50)	(50)	(50)	(50)	
Atrophy	(00)	(33)	(00)	1 [3.0]	
Stomach, Forestomach	(50)	(50)	(50)	(50)	
Edema	4 [3.0]	7 [3.1]	4 [3.8]	4 [3.5]	
Erosion	1 [2.0]	, [0.1]	. [0.0]	. [0.0]	
Hemorrhage	. [2.0]		1 [2.0]		
Inflammation, Chronic Active		1 [2.0]	. [=.0]		
Ulcer	6 [2.5]	7 [3.0]	4 [3.5]	5 [2.8]	
Epithelium, Hyperplasia	5 [2.4]	6 [2.3]	3 [3.0]	5 [2.2]	
Stomach, Glandular	(50)	(50)	(50)	(50)	
Edema	(55)	(30)	(30)	1 [2.0]	
Erosion	6 [2.0]	2 [1.5]	4 [1.8]	5 [1.8]	
Ulcer	2 [2.5]	1 [3.0]	2 [2.5]	1 [3.0]	
Epithelium, Cyst	1 [2.0]	. [0.0]	_ []	1 [2.0]	
Epithelium, Hyperplasia	1 [1.0]		2 [2.0]	2 [2.0]	
Muscularis, Hyperplasia	. []		- [2·0]	1 [2.0]	
		(0)	(0)	(2)	

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Species/Strain: RATS/F 344

Route: GAVAGE

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Androstenedione

**CAS Number:** 63-05-8

Date Report Requested: 08/08/2008

Time Report Requested: 08:20:33 First Dose M/F: 02/03/03 / 02/03/03

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	50 MG/KG
Hyperplasia, Squamous Tooth Malformation	(0)	(0)	(1) 1 [3.0]	2 [2.0] (0)
CARDIOVASCULAR SYSTEM				
Blood Vessel Heart Cardiomyopathy Thrombosis	(2) (50) 47 [2.0] 6 [2.7]	(3) (50) 47 [2.0] 3 [3.3]	(1) (50) 48 [2.1] 3 [2.7]	(0) (50) 48 [2.0] 2 [3.0]
ENDOCRINE SYSTEM				
Adrenal Cortex Accessory Adrenal Cortical Nodule Degeneration, Fatty Hyperplasia, Focal Hypertrophy, Focal Hypertrophy, Diffuse Necrosis	(50) 1 [1.0] 22 [2.0] 5 [1.4] 3 [1.0] 1 [3.0]	(50) 3 [2.0] 27 [1.9] 4 [1.8] 3 [1.0]	(50) 1 [2.0] 25 [2.0] 3 [1.3] 2 [1.0]	(50) 1 [3.0] 21 [1.7] 1 [1.0] 4 [1.5] 1 [2.0]
Bilateral, Necrosis Adrenal Medulla Hyperplasia Infiltration Cellular, Lymphocyte Islets, Pancreatic Hyperplasia	(50) 5 [2.0] (50) 5 [1.8]	1 [3.0] (50) 8 [2.0] (50) 4 [2.0]	(50) 6 [2.0] (50) 2 [1.5]	(50) 10 [1.8] 1 [2.0] (50) 9 [1.8]
Parathyroid Gland Cyst Hyperplasia Pituitary Gland Pars Distalis, Angiectasis Pars Distalis, Cyst Pars Distalis, Hyperplasia, Focal Pars Intermedia, Angiectasis	(48) (50) 1 [3.0] 2 [1.5] 13 [1.7]	(50) 1 [3.0] (50) 1 [2.0] 3 [2.3] 15 [1.9]	(50) (49) 1 [3.0] 21 [1.8]	(48) 1 [3.0] (50) 2 [3.5] 4 [2.3] 18 [1.7] 1 [2.0]
Pars Intermedia, Cyst Pars Intermedia, Cyst Pars Intermedia, Hyperplasia, Focal Rathke's Cleft, Cyst Thyroid Gland Ultimobranchial Cyst	(50) 1 [2.0]	(50) 1 [2.0]	2 [2.0] 1 [2.0] 1 [2.0] (50) 2 [1.5]	(50)

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Species/Strain: RATS/F 344

Route: GAVAGE

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Androstenedione

**CAS Number:** 63-05-8

Date Report Requested: 08/08/2008

Time Report Requested: 08:20:33 First Dose M/F: 02/03/03 / 02/03/03

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	50 MG/KG
C-cell, Hyperplasia Follicle, Cyst Follicular Cell, Hyperplasia	32 [1.4]	33 [1.2] 1 [3.0] 2 [1.5]	26 [1.2] 5 [2.2] 2 [1.5]	20 [1.3] 1 [2.0] 1 [1.0]
GENERAL BODY SYSTEM				
Tissue NOS	(0)	(0)	(1)	(0)
GENITAL SYSTEM				
Coagulating Gland Inflammation, Suppurative Epithelium, Hyperplasia	(0)	(3) 1 [3.0] 1 [3.0]	(2)	(0)
Epididymis Atrophy Degeneration	(50) 1 [3.0] 1 [3.0]	(50)	(50)	(50)
Inflammation, Chronic Penis	(0)	(1)	(0)	1 [2.0] (0)
Inflammation, Chronic Preputial Gland	(50)	1 [2.0] (50)	(50)	(50)
Cyst Fibrosis	4 [3.0]	2 [2.5]	(00)	7 [2.9] 1 [3.0]
Hyperplasia Inflammation, Chronic	1 [2.0] 47 [1.7]	1 [2.0] 48 [1.6]	41 [1.4]	1 [2.0] 43 [1.3]
Prostate Inflammation, Chronic	(50) 25 [2.0]	(50) 24 [2.1]	(50) 20 [2.1]	(50) 20 [2.0]
Epithelium, Hyperplasia Seminal Vesicle	9 [1.9] (50)	18 [1.9] (50)	9 [2.1] (50)	12 [1.9] (50)
Testes Malformation	(50)	(50)	(50)	(50) 1
Thrombosis Germinal Epithelium, Atrophy	1 [4.0] 9 [3.1]	8 [2.8]	10 [3.0]	11 [2.5]
Interstitial Cell, Hyperplasia	4 [1.5]	2 [2.0]	2 [1.0]	2 [1.0]
HEMATOPOIETIC SYSTEM				
Bone Marrow Hyperplasia	(50) 4 [2.8]	(50) 4 [2.5]	(50) 4 [3.5]	(50) 7 [2.9]

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: GAVAGE

#### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH **AVERAGE SEVERITY GRADES[b]**

Androstenedione **CAS Number:** 63-05-8 Time Report Requested: 08:20:33

First Dose M/F: 02/03/03 / 02/03/03

Date Report Requested: 08/08/2008

Lab: SRI

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	50 MG/KG
MariaCharais	4 [4 0]	0.10.51		
Myelofibrosis	1 [4.0]	2 [3.5]	(4.0)	(40)
Lymph Node	(25)	(18)	(16)	(13)
Mediastinal, Angiectasis	4 [0 0]	1 [2.0]	0 [0 5]	
Mediastinal, Ectasia	1 [3.0]		2 [2.5]	
Mediastinal, Fibrosis	1 [3.0]	4 50 01	4 70 01	
Mediastinal, Hemorrhage		1 [2.0]	1 [3.0]	
Mediastinal, Hyperplasia, Histiocytic	1 [2.0]			
Mediastinal, Hyperplasia, Lymphoid	3 [2.3]	3 [3.0]		
Pancreatic, Angiectasis				1 [2.0]
Pancreatic, Atrophy	1 [4.0]			
Pancreatic, Ectasia	3 [3.0]	1 [3.0]	2 [2.5]	
Pancreatic, Hemorrhage	1 [3.0]		1 [4.0]	
Pancreatic, Hyperplasia, Histiocytic	7 [2.3]		3 [2.3]	2 [1.5]
Pancreatic, Hyperplasia, Lymphoid	1 [3.0]			
Pancreatic, Necrosis	(4)	1 [3.0]	(4)	(0)
Lymph Node, Mandibular	(1)	(0)	(1)	(2)
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Atrophy	1 [3.0]	5 to 41	<b>7</b> (0.01	5 to 01
Ectasia	3 [2.7]	5 [2.4]	7 [2.3]	5 [2.2]
Fibrosis	1 [3.0]		0.70.01	
Hemorrhage	0= [4 4]	40.54.03	2 [3.0]	40.54.53
Hyperplasia, Histiocytic	25 [1.4]	13 [1.2]	25 [1.5]	19 [1.5]
Hyperplasia, Lymphoid	1 [2.0]	2 [2.0]	1 [2.0]	1 [3.0]
Infiltration Cellular, Eosinophil	1 [2.0]			
Infiltration Cellular, Plasma Cell	1 [3.0]			0.14.01
Pigmentation	(50)	(50)	(50)	2 [1.0]
Spleen	(50)	(50)	(50)	(50)
Accessory Spleen	0.10.01	1 [2.0]	1 [2.0]	
Fibrosis	6 [2.8]	1 [2.0]	4 [2.8]	0.10.01
Hematopoietic Cell Proliferation	2 [2.0]		4 [2.5]	2 [2.0]
Hemorrhage	2 [3.0]			4 [0.0]
Hyperplasia, Histiocytic	1 [2.0]			1 [3.0]
Hyperplasia, Lymphoid	1 [3.0]	4 [4 0]	4 [0 0]	
Necrosis	2 [3.5]	1 [4.0]	1 [3.0]	40 [0 0]
Pigmentation	12 [2.1]	12 [2.1]	8 [2.1]	12 [2.3]
Lymphoid Follicle, Hyperplasia		3 [2.0]	4 [2.8]	3 [2.7]
Red Pulp, Hyperplasia	(50)	(50)	1 [3.0]	(40)
Thymus	(50)	(50)	(50)	(49)
Atrophy			2 [3.0]	
Cyst			1 [3.0]	

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

TDMS No. 99024 - 07
Test Type: CHRONIC

Species/Strain: RATS/F 344

Route: GAVAGE

#### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Androstenedione

**CAS Number:** 63-05-8

Time Report Requested: 08:20:33

Date Report Requested: 08/08/2008

First Dose M/F: 02/03/03 / 02/03/03

Lab: SRI

0 MG/KG 10 MG/KG **50 MG/KG FISCHER 344 RATS MALE** 20 MG/KG Hemorrhage 1 [2.0] 1 [2.0] Hyperplasia, Lymphoid 2 [2.5] INTEGUMENTARY SYSTEM Mammary Gland (48)(50)(50)(50)Cyst 8 [2.5] 4 [2.3] 4 [2.8] 11 [2.2] Hyperplasia 38 [1.7] 37 [1.6] 33 [1.7] 42 [1.5] Inflammation, Granulomatous 1 [2.0] Skin (50)(50)(50)(50)Cyst Epithelial Inclusion 3 2 [3.0] Fibrosis 2 [3.0] 1 [3.0] 3 [1.7] 6 [2.5] **Hyperkeratosis** 5 [2.6] 3 [3.0] 7 [2.6] Inflammation, Suppurative 1 [2.0] Inflammation, Granulomatous 1 [3.0] Inflammation, Chronic 1 [3.0] 1 [3.0] Ulcer 1 [3.0] Epidermis, Hyperplasia 3 [2.3] 1 [2.0] 3 [2.0] 3 [2.0] MUSCULOSKELETAL SYSTEM (50)(50)(50)(50)Bone Cranium, Osteopetrosis 1 [3.0] 1 [2.0] Skeletal Muscle (8) (1) (3)(5) 3 [2.0] 2 [2.0] 1 [2.0] **Fibrosis NERVOUS SYSTEM** Brain (50)(50)(50)(50)Compression 13 [2.4] 8 [2.6] 7 [2.7] 9 [2.4] 1 [2.0] Gliosis Hemorrhage 4 [2.5] 3 [2.7] 2 [2.5] 2 [3.0] Necrosis Spinal Cord (6) (1) (0)(5)

(50)

RESPIRATORY SYSTEM

Lung

(50)

(50)

(50)

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: GAVAGE

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Androstenedione CAS Number: 63-05-8

Time Report Requested: 08:20:33 First Dose M/F: 02/03/03 / 02/03/03

Date Report Requested: 08/08/2008

Lab: SRI

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	50 MG/KG	
Congestion			1 [3.0]		
Foreign Body			1 [2.0]		
Hemorrhage	1 [2.0]	1 [2.0]	1 [1.0]	1 [2.0]	
Infiltration Cellular, Histiocyte	17 [1.6]	17 [1.2]	18 [1.2]	18 [1.1]	
Inflammation, Granulomatous		1 [2.0]	1 [2.0]	1 [2.0]	
Inflammation, Chronic			1 [1.0]	3 [1.7]	
Metaplasia, Osseous		1 [1.0]	1 [2.0]		
Alveolar Epithelium, Hyperplasia	6 [2.3]	7 [2.1]	8 [2.0]	4 [2.0]	
Serosa, Cyst				1 [2.0]	
Nose	(50)	(50)	(50)	(50)	
Foreign Body	5 [1.8]	13 [1.7]	5 [1.8]		
Infiltration Cellular, Lymphocyte			1 [2.0]		
Inflammation, Suppurative	3 [2.0]	4 [2.5]	1 [2.0]	1 [2.0]	
Inflammation, Chronic	4 [2.3]	3 [2.0]	5 [1.4]	1 [2.0]	
Nasolacrimal Duct, Inflammation, Chronic				1 [2.0]	
Respiratory Epithelium, Hyperplasia	8 [2.4]	11 [2.2]	7 [2.1]	3 [2.0]	
Sinus, Inflammation, Suppurative	1 [2.0]				
Vomeronasal Organ, Atrophy			1 [2.0]		
PECIAL SENSES SYSTEM					
Eye	(48)	(46)	(50)	(49)	
Cataract	1 [4.0]	, ,	1 [3.0]	2 [2.5]	
Ciliary Body, Hyperplasia	1 [2.0]				
Retina, Degeneration	1 [2.0]	1 [2.0]	1 [4.0]	4 [2.0]	
Retina, Edema				1 [2.0]	
Sclera, Metaplasia, Osseous		3 [1.3]	2 [2.0]	1 [1.0]	
Harderian Gland	(50)	(50)	(50)	(50)	
Infiltration Cellular, Lymphocyte			1 [2.0]		
Inflammation, Chronic				1 [2.0]	
Necrosis	1 [2.0]				
Zymbal's Gland	(0)	(0)	(1)	(0)	
RINARY SYSTEM					
Kidney	(49)	(50)	(50)	(50)	
	(40)	(00)	(00)	1 [1.0]	
1.781				1 1 1 . U 1	
Cyst Hydronephrosis				1 [3.0]	

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

**TDMS No.** 99024 - 07

Test Type: CHRONIC

Species/Strain: RATS/F 344

Route: GAVAGE

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Androstenedione

**CAS Number:** 63-05-8

Date Report Requested: 08/08/2008

Time Report Requested: 08:20:33 First Dose M/F: 02/03/03 / 02/03/03

Lab: SRI

FISCHER 344 RATS MALE	0 MG/KG	10 MG/KG	20 MG/KG	50 MG/KG
Nephropathy	42 [1.6]	48 [2.0]	46 [1.9]	44 [2.0]
Renal Tubule, Accumulation, Hyaline Droplet	1 [3.0]	1 [3.0]		1 [4.0]
Renal Tubule, Necrosis	1 [3.0]	1 [3.0]	2 [2.5]	
Renal Tubule, Pigmentation	5 [2.4]	2 [2.0]	6 [2.3]	6 [1.7]
Urinary Bladder	(50)	(50)	(50)	(50)
Calculus Micro Observation Only		1 [2.0]		
Hemorrhage				1 [3.0]
Inflammation, Chronic		1 [3.0]		
Transitional Epithelium, Hyperplasia		2 [2.5]		

\*\*\* END OF MALE \*\*\*

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: GAVAGE

## P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Androstenedione

CAS Number: 63-05-8

First Dose M/F: 02/03/03 / 02/03/03

Date Report Requested: 08/08/2008

Time Report Requested: 08:20:33

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	50 MG/KG	
Disposition Summary					
Animals Initially in Study	50	50	50	50	
Early Deaths Moribund Sacrifice	10	7	12	9	
Natural Death	2	6	5	4	
Survivors	2	U	J	4	
Natural Death		1			
Terminal Sacrifice	38	36	33	37	
Animals Examined Microscopically	50	50	50	50	
ALIMENTARY SYSTEM					
Intestine Large, Rectum	(49)	(47)	(47)	(48)	
Edema	1 [2.0]				
Intestine Small, Ileum	(48)	(46)	(45)	(48)	
Serosa, Inflammation, Chronic	1 [2.0]				
Liver	(50)	(50)	(50)	(50)	
Angiectasis		1 [2.0]		1 [2.0]	
Basophilic Focus	47	46	42	38	
Clear Cell Focus	14	10	11	14	
Degeneration, Cystic	_		4	1 [2.0]	
Eosinophilic Focus Fibrosis	5	1 [1 0]	4		
Hematopoietic Cell Proliferation	1 [2.0] 1 [1.0]	1 [1.0]			
Hemorrhage	1 [1.0]			1 [1.0]	
Hepatodiaphragmatic Nodule	10 [2.1]	9 [1.7]	11 [2.1]	9 [2.3]	
Infiltration Cellular, Mixed Cell	21 [1.0]	33 [1.2]	32 [1.2]	31 [1.2]	
Mixed Cell Focus	1	00 [1.2]	2	0.[2]	
Necrosis, Focal	•		1 [1.0]	1 [2.0]	
Bile Duct, Hyperplasia	12 [1.3]	16 [1.3]	18 [1.3]	24 [1.2]	
Centrilobular, Necrosis	i -1	r -1	r -1	1 [1.0]	
Hepatocyte, Vacuolization Cytoplasmic	6 [1.8]	4 [3.0]	7 [2.6]	5 [2.4]	
Kupffer Cell, Pigmentation	2 [1.5]				
Mesentery	(13)	(14)	(15)	(15)	
Accessory Spleen	2		3 [1.7]	2 [2.0]	
Fat, Necrosis	12 [2.3]	14 [2.2]	14 [2.1]	12 [2.0]	
Oral Mucosa	(0)	(1)	(0)	(0)	

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: GAVAGE

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Androstenedione

CAS Number: 63-05-8

Time Report Requested: 08:20:33 First Dose M/F: 02/03/03 / 02/03/03

Date Report Requested: 08/08/2008

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	50 MG/KG	
Pancreas	(50)	(50)	(50)	(50)	
Atrophy	10 [1.6]	10 [1.8]	16 [1.8]	26 [1.6]	
Cyst	3 [2.3]	7 [1.7]	4 [1.5]	2 [1.5]	
Infiltration Cellular, Lymphocyte			1 [2.0]	3 [2.0]	
Acinus, Cytoplasmic Alteration		4 [2.8]	1 [3.0]	2 [3.0]	
Acinus, Hyperplasia, Focal			1 [2.0]	3 [2.0]	
Salivary Glands	(50)	(50)	(50)	(50)	
Atrophy	,	1 [2.0]	,	,	
Vacuolization Cytoplasmic		1 [4.0]			
Stomach, Forestomach	(50)	(50)	(50)	(50)	
Edema	1 [4.0]	3 [2.3]	2 [3.5]	3 [2.7]	
Inflammation, Chronic Active	1 [3.0]			. ,	
Ulcer	2 [3.5]	2 [3.0]	2 [2.5]	2 [3.0]	
Epithelium, Hyperplasia	3 [3.0]	1 [2.0]	2 [2.5]	6 [2.5]	
Stomach, Glandular	(50)	(50)	(50)	(50)	
Edema	()	()	()	2 [2.5]	
Erosion				3 [1.7]	
Ulcer			2 [1.5]	1 [2.0]	
Epithelium, Hyperplasia	1 [2.0]	2 [2.5]	-[]	1 [2.0]	
Tongue	(1)	(0)	(1)	(1)	
Hyperkeratosis	( )	(-)	(-)	1 [2.0]	
Epithelium, Hyperplasia	1 [2.0]			. [=]	
ARDIOVASCULAR SYSTEM					
Heart	(50)	(50)	(50)	(50)	
Cardiomyopathy	46 [1.7]	43 [1.7]	43 [1.7]	48 [1.9]	
Thrombosis		2 [2.5]	1 [2.0]	1 [3.0]	
NDOCRINE SYSTEM					
A dual and Operations	(50)	(50)	(50)	(50)	
Adrenal Cortex	(50)	(50)	(50)	(50)	
Accessory Adrenal Cortical Nodule	1 [2.0]	3 [2.0]	1 [2.0]		
Angiectasis	1 [2.0]	00.14.01	0454.03	40 [4 0]	
Degeneration, Fatty	15 [1.9]	20 [1.9]	24 [1.8]	13 [1.9]	
Hematopoietic Cell Proliferation	4 [0.0]	2 [1.5]	4 [0 0]	1 [1.0]	
Hyperplasia, Focal	1 [2.0]	4 [1.5]	1 [2.0]	2 [2.0]	
Hypertrophy, Focal	12 [1.8]	10 [2.1]	9 [1.8]	2 [1.0]	
Hypertrophy, Diffuse		1 [2.0]			

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

**TDMS No.** 99024 - 07

Test Type: CHRONIC

Species/Strain: RATS/F 344

Route: GAVAGE

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Androstenedione

**CAS Number:** 63-05-8

Time Report Requested: 08:20:33 First Dose M/F: 02/03/03 / 02/03/03

Date Report Requested: 08/08/2008

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	50 MG/KG
Necrosis		1 [2.0]		
Capsule, Developmental Malformation		1		
Adrenal Medulla	(50)	(50)	(50)	(50)
Hyperplasia	1 [2.0]	1 [2.0]	3 [2.3]	2 [2.0]
Islets, Pancreatic	(50)	(50)	(50)	(50)
Hyperplasia	` ,	4 [1.8]	1 [2.0]	11 [1.8]
Parathyroid Gland	(49)	(48)	(48)	(45)
Hyperplasia	, ,	, ,	, ,	1 [2.0]
Pituitary Gland	(50)	(50)	(49)	(50)
Pars Distalis, Angiectasis	, ,	1 [3.0]	1 [3.0]	3 [2.3]
Pars Distalis, Cyst	18 [2.3]	12 [2.4]	14 [2.4]	13 [2.5]
Pars Distalis, Hyperplasia, Focal	20 [2.0]	20 [1.9]	14 [1.8]	19 [1.7]
Pars Intermedia, Angiectasis	1 [1.0]			
Rathke's Cleft, Cyst	3 [3.0]	1 [1.0]	4 [2.5]	
Thyroid Gland	(50)	(50)	(50)	(50)
Últimobranchial Cyst	, ,	•	2 [1.5]	1 [1.0]
C-cell, Hyperplasia	27 [1.8]	33 [1.7]	24 [1.5]	25 [1.7]
Follicle, Cyst		1 [2.0]	2 [2.0]	1 [2.0]
Follicular Cell, Hyperplasia	1 [1.0]			

#### **GENERAL BODY SYSTEM**

None

# GENITAL SYSTEM Clitoral Gland

Clitoral Gland	(50)	(50)	(50)	(50)
Cyst	6 [2.8]	8 [2.8]	8 [3.1]	4 [2.8]
Hyperplasia	3 [2.7]	4 [3.0]		3 [2.3]
Inflammation, Suppurative	1 [2.0]		1 [3.0]	1 [2.0]
Inflammation, Chronic	23 [1.0]	26 [1.2]	18 [1.4]	24 [1.3]
Ovary	(50)	(50)	(50)	(50)
Angiectasis				1 [2.0]
Cyst	3 [2.7]	5 [2.8]	2 [3.0]	1 [3.0]
Infiltration Cellular, Histiocyte				1 [2.0]
Bursa, Dilatation	6 [2.8]	6 [3.0]	2 [3.0]	6 [3.0]
Corpus Luteum, Hyperplasia		1 [3.0]		
Follicle, Cyst				1 [2.0]
Interstitial Cell, Cyst				1 [2.0]

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Species/Strain: RATS/F 344

Route: GAVAGE

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Androstenedione

**CAS Number:** 63-05-8

Time Report Requested: 08:20:33

First Dose M/F: 02/03/03 / 02/03/03

Date Report Requested: 08/08/2008

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	50 MG/KG	
Uterus	(50)	(50)	(50)	(50)	
Decidual Reaction			1 [3.0]		
Hemorrhage		1 [2.0]	1 [4.0]	1 [3.0]	
Hyperplasia, Cystic	9 [1.8]	8 [1.9]	11 [1.6]	14 [1.9]	
Inflammation, Suppurative	1 [3.0]	4.54.03			
Thrombosis		1 [4.0]	0.00		
Epithelium, Hyperplasia			2 [2.0]		
IEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(50)	
Atrophy		1 [2.0]	1 [2.0]		
Hyperplasia	3 [3.7]	6 [2.0]	5 [2.8]	1 [3.0]	
Thrombosis	<b>(</b> E)	1 [2.0]	(4.0)	(40)	
Lymph Node	(5)	(10)	(16)	(10)	
Congestion			1 [2.0]		
Deep Cervical, Ectasia Deep Cervical, Necrosis	1 [4.0]		1 [2.0]		
Mediastinal, Ectasia	1 [4.0]	2 [3.0]	1 [2.0]		
Mediastinal, Letasia Mediastinal, Hemorrhage		3 [2.0]	1 [3.0]	1 [2.0]	
Mediastinal, Hyperplasia, Lymphoid	2 [2.0]	2 [2.5]	3 [2.0]	. [2.0]	
Mediastinal, Infiltration Cellular, Mast Cell	1 [2.0]	_ []	0 [2.0]		
Mediastinal, Pigmentation	1 [2.0]				
Pancreatic, Ectasia	1		1 [3.0]		
Pancreatic, Hemorrhage	1 [3.0]	2 [2.0]	3 [2.3]	2 [2.0]	
Pancreatic, Hyperplasia, Histiocytic			1 [2.0]		
Pancreatic, Pigmentation				1 [3.0]	
Lymph Node, Mandibular	(0)	(0)	(0)	(1)	
Lymph Node, Mesenteric	(50)	(50)	(49)	(50)	
Ectasia	2 [2.0]		3 [2.3]	4 [2.3]	
Hemorrhage	20 [4 7]	0.4 [4.0]	1 [2.0]	40 [4 6]	
Hyperplasia, Histiocytic	29 [1.7]	34 [1.8]	24 [1.8]	19 [1.6]	
Hyperplasia, Lymphoid Pigmentation	1 [2.0]	1 [3.0]	1 [2.0] 2 [2.0]	1 [2.0]	
Spleen	(50)	(49)	2 [2.0] (50)	(50)	
Fibrosis	(30)	(40)	1 [3.0]	(30)	
Hematopoietic Cell Proliferation	5 [2.0]	3 [2.7]	6 [1.5]	2 [1.5]	
Hemorrhage	0 [0]	1 [3.0]	1 [3.0]	1 [4.0]	
Hyperplasia, Lymphoid		F1	F1	1 [2.0]	

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Species/Strain: RATS/F 344

Route: GAVAGE

## P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Androstenedione

**CAS Number:** 63-05-8

Date Report Requested: 08/08/2008

Time Report Requested: 08:20:33 First Dose M/F: 02/03/03 / 02/03/03

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	50 MG/KG	
Infiltration Cellular, Mixed Cell Pigmentation Lymphoid Follicle, Hyperplasia Thymus Atrophy Hemorrhage	43 [2.0] 1 [3.0] (50)	44 [2.0] 2 [3.5] (50) 1 [2.0]	39 [1.8] 3 [2.7] (49)	1 [1.0] 36 [1.7] 11 [2.7] (50) 1 [2.0]	
INTEGUMENTARY SYSTEM					
Mammary Gland Cyst Hyperplasia Inflammation, Suppurative Skin Cyst Epithelial Inclusion Hyperkeratosis	(50) 15 [2.1] 48 [2.2] (50)	(50) 3 [1.7] 40 [2.3] (50) 1 [2.0] 1 [3.0]	(50) 9 [2.1] 35 [2.0] (50)	(50) 3 [2.7] 23 [1.8] 1 [4.0] (50) 1 [3.0] 2 [3.0]	
MUSCULOSKELETAL SYSTEM					
Bone Hyperostosis Skeletal Muscle Inflammation, Chronic	(50) (0)	(50) (1) 1 [2.0]	(50)	(50) 1 [3.0] (0)	
NERVOUS SYSTEM					
Brain Compression Hemorrhage Hydrocephalus	(50) 6 [2.2] 1 [3.0] 1 [2.0]	(50) 10 [2.3] 1 [3.0]	(50) 4 [2.5]	(50) 5 [2.4] 1 [2.0]	
RESPIRATORY SYSTEM					
Lung Congestion Emphysema Hemorrhage	(50)	(50) 1 [3.0] 1 [3.0] 1 [1.0]	(50)	(50)	
Infiltration Cellular, Histiocyte	31 [1.0]	37 [1.2]	26 [1.1]	27 [1.1]	

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Route: GAVAGE

### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]

Androstenedione CAS Number: 63-05-8

Time Report Requested: 08:20:33 First Dose M/F: 02/03/03 / 02/03/03

Date Report Requested: 08/08/2008

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/KG	10 MG/KG	20 MG/KG	50 MG/KG	
Inflammation, Chronic Pigmentation	1 [2.0]	1 [2.0] 1 [2.0]	1 [2.0]	1 [2.0]	
Alveolar Epithelium, Hyperplasia Artery, Hypertrophy	12 [1.9]	13 [1.5] 1 [2.0]	11 [1.9]	10 [1.6]	
Nose Foreign Body	(50) 6 [1.7]	(50) 4 [1.8]	(50) 6 [1.5]	(50) 3 [1.3]	
Inflammation, Suppurative Inflammation, Chronic Respiratory Epithelium, Hyperplasia	3 [2.0] 3 [2.0] 7 [2.0]	2 [2.0] 2 [3.0] 8 [2.0]	3 [2.3] 1 [3.0] 1 [2.0]	1 [2.0]	
SPECIAL SENSES SYSTEM	. []	- []	. []	. []	
Ear Inflammation, Suppurative	(0)	(1) 1 [3.0]	(0)	(0)	
Eye Atrophy Cataract	(49) 1 [4.0] 3 [3.7]	(48) 1 [3.0]	(47)	(49) 1 [3.0] 1 [3.0]	
Cornea, Inflammation, Chronic Retina, Degeneration		1 [1.0] 1 [3.0]	3 [3.0]	1 [0.0]	
Sclera, Metaplasia, Osseous Harderian Gland Infiltration Cellular, Lymphocyte	1 [2.0] (50)	(50)	1 [2.0] (50) 1 [1.0]	(50)	
Zymbal's Gland	(0)	(0)	(1)	(0)	
RINARY SYSTEM					
Kidney Cyst	(50) 2 [3.0]	(49)	(50)	(50) 1 [3.0]	
Glomerulosclerosis Infarct Nephropathy Renal Tubule, Accumulation, Hyaline	2 [2.5] 48 [1.1] 3 [2.7]	1 [3.0] 44 [1.1]	1 [4.0] 1 [2.0] 43 [1.0]	43 [1.1] 2 [2.5]	
Droplet Renal Tubule, Necrosis			0.70.51	1 [2.0]	
Renal Tubule, Pigmentation Renal Tubule, Vacuolization Cytoplasmic Urinary Bladder	1 [3.0] (50)	1 [3.0] (50)	2 [2.5] (50)	3 [3.3] (50)	

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

TDMS No. 99024 - 07
Test Type: CHRONIC

Species/Strain: RATS/F 344

Route: GAVAGE

#### P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH

AVERAGE SEVERITY GRADES[b]
Androstenedione

**CAS Number:** 63-05-8

Date Report Requested: 08/08/2008

Time Report Requested: 08:20:33 First Dose M/F: 02/03/03 / 02/03/03

Lab: SRI

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

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)