

Experiment Number: 20702 - 02

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

Date Report Requested: 12/03/2020

Test Type: 90-DAY

Usnea Lichen

Time Report Requested: 12:51:12

Route: DOSED FEED

CAS Number: USNEALICHEN

First Dose M/F: 02/13/09 / 02/13/09

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

**NTP Study Number:** C20702  
**Lock Date:** 07/01/2013  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 3.0.2.3\_002  
**PWG Approval Date:** NONE

Test Type: 90-DAY

Usnea Lichen

Time Report Requested: 12:51:12

Route: DOSED FEED

CAS Number: USNEALICHEN

First Dose M/F: 02/13/09 / 02/13/09

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

C57BL/6N XC3H/HEN MTV-NCTR MICE MALE	Control 0 PPM	USNEA 15 PPM	USNEA 30 PPM	USNEA 60 PPM	USNEA 180 PPM	USNEA 360 PPM
--------------------------------------	---------------	--------------	--------------	--------------	---------------	---------------

**Disposition Summary**

Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Survivors						
Terminal Sacrifice	10	10	10	10	10	10
Animals Examined Microscopically	10				10	10

## ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(0)	(0)	(0)	(10)
Gallbladder	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(0)	(10)
Liver	(10)	(0)	(0)	(0)	(10)	(10)
Inflammation, Chronic						1 [2.0]
Tension Lipidosis	2 [1.0]				1 [1.0]	
Hepatocyte, Degeneration						10 [1.8]
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)

## CARDIOVASCULAR SYSTEM

Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)

## ENDOCRINE SYSTEM

Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
----------------	------	-----	-----	-----	-----	------

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)

Test Type: 90-DAY

Usnea Lichen

Time Report Requested: 12:51:12

Route: DOSED FEED

CAS Number: USNEALICHEN

First Dose M/F: 02/13/09 / 02/13/09

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

C57BL/6N XC3H/HEN MTV-NCTR MICE MALE	Control 0 PPM	USNEA 15 PPM	USNEA 30 PPM	USNEA 60 PPM	USNEA 180 PPM	USNEA 360 PPM
Accessory Adrenal Cortical Nodule						1
Subcapsular, Hyperplasia	1 [1.0]					1 [1.0]
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(9)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Pars Distalis, Cyst	1 [1.0]					
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
Ectopic Thymus						1

## GENERAL BODY SYSTEM

None

## GENITAL SYSTEM

Epididymis	(10)	(0)	(0)	(0)	(0)	(10)
Preputial Gland	(10)	(0)	(0)	(0)	(0)	(10)
Cyst	2 [2.0]					1 [3.0]
Inflammation, Suppurative	1 [2.0]					
Prostate	(10)	(0)	(0)	(0)	(0)	(10)
Seminal Vesicle	(10)	(0)	(0)	(0)	(0)	(10)
Testes	(10)	(0)	(0)	(0)	(0)	(10)

## HEMATOPOIETIC SYSTEM

Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mandibular	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Hyperplasia, Lymphoid	1 [1.0]					
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Hematopoietic Cell Proliferation						3 [2.3]
Hyperplasia, Lymphoid	5 [2.0]					4 [2.0]
Thymus	(10)	(0)	(0)	(0)	(0)	(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)

Test Type: 90-DAY

Usnea Lichen

Time Report Requested: 12:51:12

Route: DOSED FEED

CAS Number: USNEALICHEN

First Dose M/F: 02/13/09 / 02/13/09

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

C57BL/6N XC3H/HEN MTV-NCTR MICE MALE	Control 0 PPM	USNEA 15 PPM	USNEA 30 PPM	USNEA 60 PPM	USNEA 180 PPM	USNEA 360 PPM
<b>INTEGUMENTARY SYSTEM</b>						
Skin	(10)	(0)	(0)	(0)	(0)	(10)
<b>MUSCULOSKELETAL SYSTEM</b>						
Bone, Femur	(10)	(0)	(0)	(0)	(0)	(10)
<b>NERVOUS SYSTEM</b>						
Brain, Brain Stem	(10)	(0)	(0)	(0)	(0)	(10)
Brain, Cerebellum	(10)	(0)	(0)	(0)	(0)	(10)
Brain, Cerebrum	(10)	(0)	(0)	(0)	(0)	(10)
<b>RESPIRATORY SYSTEM</b>						
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Nose	(10)	(0)	(0)	(0)	(0)	(10)
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
<b>SPECIAL SENSES SYSTEM</b>						
Eye	(10)	(0)	(0)	(0)	(0)	(10)
Harderian Gland	(10)	(0)	(0)	(0)	(0)	(10)
<b>URINARY SYSTEM</b>						
Kidney	(10)	(0)	(0)	(0)	(0)	(10)
Infiltration Cellular, Lymphocyte	1 [1.0]					1 [1.0]
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

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)

Experiment Number: 20702 - 02

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

Date Report Requested: 12/03/2020

Test Type: 90-DAY

Usnea Lichen

Time Report Requested: 12:51:12

Route: DOSED FEED

CAS Number: USNEALICHEN

First Dose M/F: 02/13/09 / 02/13/09

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

---

C57BL/6N XC3H/HEN MTV-NCTR MICE MALE

Control 0 PPM

USNEA 15 PPM

USNEA 30 PPM

USNEA 60 PPM

USNEA 180 PPM

USNEA 360 PPM

---

\*\*\* 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)

Test Type: 90-DAY

Usnea Lichen

Time Report Requested: 12:51:12

Route: DOSED FEED

CAS Number: USNEALICHEN

First Dose M/F: 02/13/09 / 02/13/09

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

C57BL/6N XC3H/HEN MTV-NCTR MICE FEMALE	Control 0 PPM	USNEA 15 PPM	USNEA 30 PPM	USNEA 60 PPM	USNEA 180 PPM	USNEA 360 PPM
--	---------------	--------------	--------------	--------------	---------------	---------------

**Disposition Summary**

Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Moribund Sacrifice	1					
Natural Death						1
Survivors						
Terminal Sacrifice	9	10	10	10	10	9
Animals Examined Microscopically	10			10	10	10

## ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(0)	(0)	(0)	(10)
Gallbladder	(10)	(0)	(0)	(0)	(0)	(9)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(0)	(9)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(0)	(9)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(0)	(9)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(0)	(9)
Epithelium, Hyperplasia	1 [2.0]					
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(0)	(9)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(0)	(9)
Liver	(10)	(0)	(0)	(10)	(10)	(9)
Inflammation, Chronic Active				2 [1.0]	3 [1.0]	
Tension Lipidosis	1 [2.0]					
Vacuolization Cytoplasmic	1 [1.0]					
Hepatocyte, Degeneration	1 [2.0]				1 [1.0]	8 [1.6]
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Cyst						1 [3.0]
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(9)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(9)

## CARDIOVASCULAR SYSTEM

Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
--------------	------	-----	-----	-----	-----	------

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)

Test Type: 90-DAY

Usnea Lichen

Time Report Requested: 12:51:12

Route: DOSED FEED

CAS Number: USNEALICHEN

First Dose M/F: 02/13/09 / 02/13/09

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

C57BL/6N XC3H/HEN MTV-NCTR MICE FEMALE	Control 0 PPM	USNEA 15 PPM	USNEA 30 PPM	USNEA 60 PPM	USNEA 180 PPM	USNEA 360 PPM
Heart	(10)	(0)	(0)	(0)	(0)	(10)
<b>ENDOCRINE SYSTEM</b>						
Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
Vacuolization Cytoplasmic	1 [1.0]					
Subcapsular, Hyperplasia	8 [1.0]					9 [1.0]
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Pars Distalis, Hyperplasia	1 [2.0]					
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
Ectopic Thymus	1					1
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
Clitoral Gland	(10)	(0)	(0)	(0)	(0)	(9)
Ovary	(10)	(0)	(0)	(10)	(10)	(10)
Atrophy	1 [2.0]				7 [1.9]	10 [2.5]
Uterus	(10)	(0)	(0)	(0)	(0)	(10)
<b>HEMATOPOIETIC SYSTEM</b>						
Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node, Mandibular	(10)	(0)	(0)	(0)	(0)	(10)
Hyperplasia, Lymphoid	1 [1.0]					3 [1.3]
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(9)
Hyperplasia, Lymphoid	2 [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)

Test Type: 90-DAY

Usnea Lichen

Time Report Requested: 12:51:12

Route: DOSED FEED

CAS Number: USNEALICHEN

First Dose M/F: 02/13/09 / 02/13/09

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

C57BL/6N XC3H/HEN MTV-NCTR MICE FEMALE	Control 0 PPM	USNEA 15 PPM	USNEA 30 PPM	USNEA 60 PPM	USNEA 180 PPM	USNEA 360 PPM
Spleen	(10)	(0)	(0)	(0)	(0)	(9)
Depletion Lymphoid	1 [2.0]					
Hematopoietic Cell Proliferation	6 [2.0]					7 [2.0]
Hyperplasia, Lymphoid	3 [2.0]					4 [2.5]
Pigmentation						1 [2.0]
Thymus	(10)	(0)	(0)	(0)	(0)	(9)
Atrophy	1 [4.0]					
<b>INTEGUMENTARY SYSTEM</b>						
Mammary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Skin	(10)	(0)	(0)	(0)	(0)	(10)
<b>MUSCULOSKELETAL SYSTEM</b>						
Bone, Femur	(10)	(0)	(0)	(0)	(0)	(9)
Hyperplasia	1 [2.0]					
<b>NERVOUS SYSTEM</b>						
Brain, Brain Stem	(10)	(0)	(0)	(0)	(0)	(10)
Brain, Cerebellum	(10)	(0)	(0)	(0)	(0)	(10)
Brain, Cerebrum	(10)	(0)	(0)	(0)	(0)	(10)
<b>RESPIRATORY SYSTEM</b>						
Lung	(10)	(0)	(0)	(0)	(0)	(10)
Nose	(10)	(0)	(0)	(0)	(0)	(10)
Trachea	(10)	(0)	(0)	(0)	(0)	(10)
<b>SPECIAL SENSES SYSTEM</b>						
Eye	(10)	(0)	(0)	(0)	(0)	(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)



Experiment Number: 20702 - 02

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

Date Report Requested: 12/03/2020

Test Type: 90-DAY

Usnea Lichen

Time Report Requested: 12:51:12

Route: DOSED FEED

CAS Number: USNEALICHEN

First Dose M/F: 02/13/09 / 02/13/09

Species/Strain: MICE/B6C3F1/NCTR

Lab: NCTR

C57BL/6N XC3H/HEN MTV-NCTR MICE FEMALE	Control 0 PPM	USNEA 15 PPM	USNEA 30 PPM	USNEA 60 PPM	USNEA 180 PPM	USNEA 360 PPM
Harderian Gland	(10)	(0)	(0)	(0)	(0)	(10)
<b>URINARY SYSTEM</b>						
Kidney	(10)	(0)	(0)	(0)	(0)	(10)
Nephropathy	1 [3.0]					
Glomerulus, Amyloid Deposition	1 [4.0]					
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

\*\*\* 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)