



CMHD Pathology Report



CMHD Pathology Core

Toronto Centre for
Phenogenomics
25 Orde St. 3rd fl.
Toronto, Ont. M5T 3H7
Tel.(416) 586-8375
Fax (416) 586-5993

contact: Dr. Susan
Newbigging
email:
newbigging@lunenfeld.ca

Principle Investigator: Dr. Jacqui White

Institute: Wellcome Trust Sanger Institute
Address: Attn: Linda Read Wellcome Trust
Genome Campus Hinxton Cambridge CB10
1SA, UK

ReportID: Report Date: June 18, 2013
Pathologist: Dr. H. Adissu

Mouse Genetics Project

Wellcome Trust Sanger
Institute
Wellcome Trust Genome
Campus
Hinxton, Cambridge
CB10 1SA
UK

email:
MGPenquiries@sanger.ac.uk
[Mouse Portal](#)
[Europhenome](#)

CMHD LabID: N13-467

Relevant History:

Phenotype

increased circulating magnesium level
increased bone strength
preweaning lethality
exencephaly
preweaning lethality

AnimalID: M00207047 (Male)

Tissue Preservation and Staining:

Testis not present

Histopathology Findings:

spleen (MA:0000141)

Histopath Description:

mild erythroid hyperplasia

Morphological Diagnosis:

Distribution: multifocal; **Severity:** mild; **MPATH Diagnosis:** extramedullary hemopoiesis
MPATH:595

Definitive Diagnosis:

Splenic erythroid hyperplasia

liver (MA:0000358)

Histopath Description:

diffuse lipidosis

Morphological Diagnosis:

Distribution: diffuse; **Severity:** severe; **MPATH Diagnosis:** steatosis MPATH:622

Definitive Diagnosis:

Hepatic lipidosis

brain (MA:0000168)

Histopath Description:

There is more marked dilation of the lateral ventricles; there is rarefaction of the periventricular neuropil

Morphological Diagnosis:

Distribution: bilateral; **Severity:** mild;

Definitive Diagnosis:

Dilation of the brain ventricles

Histopathology Comments:

Mild dilation of the lateral ventricles is a background condition in mice of C57BL/6N background (Brayton et al., 2004).

Organ/Tissue Analyzed:

Histopathology examination included the following organs and tissues: brain, trigeminal ganglion, eyes, salivary glands, trachea, lungs, heart, thymus, thyroid gland, parathyroid gland, exocrine and endocrine pancreas, oesophagus, stomach, small intestine, large intestine, liver, gall bladder, spleen, kidneys, adrenal gland, lymph nodes, spinal cord, bone marrow, sternum, femur and tibia with associated skeletal muscles, brown fat, pinna, skin, testis, epididymis, seminal vesicle, and prostate.

AnimalID: M00207051 (Female)**Histopathology Findings:****liver (MA:0000358)****Histopath Description:**

diffuse lipidosis

Morphological Diagnosis:

Distribution: diffuse; **Severity:** severe; **MPATH Diagnosis:** steatosis MPATH:622

Definitive Diagnosis:

Hepatic lipidosis

brain (MA:0000168)**Histopath Description:**

There is more marked dilation of the lateral ventricles; there is rarefaction of the periventricular neuropil

Morphological Diagnosis:

Distribution: bilateral; **Severity:** mild;

Definitive Diagnosis:

Dilation of the brain ventricles

Histopathology Comments:

Mild dilation of the lateral ventricles is a background condition in mice of C57BL/6N background (Brayton et al., 2004).

Organ/Tissue Analyzed:

Histopathology examination included the following organs and tissues: brain, trigeminal ganglion, eyes, salivary glands, trachea, lungs, heart, thymus, thyroid gland, parathyroid gland, exocrine and endocrine pancreas, oesophagus, stomach, small intestine, large intestine, liver, gall bladder, spleen, kidneys, adrenal gland, lymph nodes, spinal cord, bone marrow, sternum, femur and tibia with associated skeletal muscles, brown fat, pinna, skin, uterus, oviduct, and ovary, and mammary gland.

AnimalID: M00207078 (Female)**Histopathology Findings:****liver (MA:0000358)****Histopath Description:**

diffuse lipidosis

Morphological Diagnosis:

Distribution: diffuse; **Severity:** severe; **MPATH Diagnosis:** steatosis MPATH:622

Definitive Diagnosis:

Hepatic lipidosis

spleen (MA:0000141)**Histopath Description:**

mild erythroid hyperplasia

Morphological Diagnosis:

Distribution: multifocal; **Severity:** mild; **MPATH Diagnosis:** extramedullary hemopoiesis MPATH:595

Definitive Diagnosis:

Splenic erythroid hyperplasia

lymph node (MA:0000139)**Histopath Description:**

The mesenteric lymph node is enlarged (greater than three-fold). There are multiple follicles with large germinal centers. The sinuses contain large numbers of mature lymphocytes.

Morphological Diagnosis:

Duration: Sub-acute; **Distribution:** Diffuse; **Severity:** moderate; **MPATH Diagnosis:** hyperplasia MPATH:134

Definitive Diagnosis:

Lymphoid hyperplasia.

Histopathology Comments:

The changes in the mesenteric lymph node are suggestive of draining of a regional inflammatory process. However, such a process was not observed in the tissues examined.

stomach (MA:0000353)**Histopath Description:**

moderate neutrophilic gastritis

Morphological Diagnosis:

Distribution: multifocal to coalescing; **Severity:** moderate;

Definitive Diagnosis:

Gastritis, neutrophilic

brain (MA:0000168)**Histopath Description:**

There is more marked dilation of the lateral ventricles; there is rarefaction of the periventricular neuropil

Morphological Diagnosis:

Distribution: bilateral; **Severity:** mild;

Definitive Diagnosis:

Dilation of the brain ventricles

Histopathology Comments:

Mild dilation of the lateral ventricles is a background condition in mice of C57BL/6N background (Brayton et al., 2004).

Organ/Tissue Analyzed:

Histopathology examination included the following organs and tissues: brain, trigeminal ganglion, eyes, salivary glands, trachea, lungs, heart, thymus, thyroid gland, parathyroid gland, exocrine and endocrine pancreas, oesophagus, stomach, small intestine, large intestine, liver, gall bladder, spleen, kidneys, adrenal gland, lymph nodes, spinal cord, bone marrow, sternum, femur and tibia with associated skeletal muscles, brown fat, pinna, skin, uterus, oviduct, and ovary, and mammary gland.

AnimalID: m00201043 (Female)**Histopathology Findings:****liver (MA:0000358)****Histopath Description:**

diffuse lipidosis

Morphological Diagnosis:

Distribution: diffuse; **Severity:** severe; **MPATH Diagnosis:** steatosis MPATH:622

Definitive Diagnosis:

Hepatic lipidosis

lymph node (MA:0000139)**Histopath Description:**

The mesenteric lymph node is enlarged (greater than three-fold). There are multiple follicles with large germinal centers. The sinuses contain large numbers of mature lymphocytes.

Morphological Diagnosis:

Duration: Sub-acute; **Distribution:** Diffuse; **Severity:** moderate; **MPATH Diagnosis:** hyperplasia MPATH:134

Definitive Diagnosis:

Lymphoid hyperplasia.

Histopathology Comments:

The changes in the mesenteric lymph node are suggestive of draining of a regional inflammatory process. However, such a process was not observed in the tissues examined.

brain (MA:0000168)**Histopath Description:**

There is more marked dilation of the lateral ventricles; there is rarefaction of the periventricular neuropil

Morphological Diagnosis:

Distribution: bilateral; **Severity:** mild;

Definitive Diagnosis:

Dilation of the brain ventricles

Histopathology Comments:

Mild dilation of the lateral ventricles is a background condition in mice of C57BL/6N background (Brayton et al., 2004).

eye (MA:0000261)**Histopath Description:**

There is a slight focal retinal fold and clusters of nuclei are present within the outer plexiform layer.

Morphological Diagnosis:

Distribution: focal; **Severity:** mild;

Definitive Diagnosis:

Retinal dysplasia

Organ/Tissue Analyzed:

Histopathology examination included the following organs and tissues: brain, trigeminal ganglion, eyes, salivary glands, trachea, lungs, heart, thymus, thyroid gland, parathyroid gland, exocrine and endocrine pancreas, oesophagus, stomach, small intestine, large intestine, liver, gall bladder, spleen, kidneys, adrenal gland, lymph nodes, spinal cord, bone marrow, sternum, femur and tibia with associated skeletal muscles, brown fat, pinna, skin, uterus, oviduct, and ovary, and mammary gland.

Report Summary and Recommendation:

Lesions in this line are attributable to diet or strain background.