



# CMHD Pathology Report



## CMHD Pathology Core

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ReportID: Report Date: November 23,  
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Pathologist: H. Adissu

## Mouse Genetics Project

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

CMHD LabID: N11-375

## Relevant History:

(Plasma Chemistry) Decreased circulating cholesterol level and LDL level

## AnimalID: M00274830 Sec24a hom

### Histopathology Findings:

#### knee (MA:0000046)

#### Histopath Description:

The fibrous periosteum is expanded nearly 10x normal and is composed of plump fibroblastic cells that form a streaming layer of 2-3 mm length along the tibial posterior margin.

#### Morphological Diagnosis:

**Duration:** Chronic-active; **Distribution:** Focal; **Severity:** severe; **MPATH Diagnosis:** hyperplasia MPATH:134

#### Definitive Diagnosis:

Periosteal hyperplasia, focally extensive

#### Histopathology Comments:

The cause and pathogenesis of of this lesion is uncertain. We primarily consider an exuberant periossteal reaction to an injury

## AnimalID: M00274829 Sec24a hom

### Histopathology Findings:

#### lymph node (MA:0000139)

#### Histopath Description:

The mesenteric lymph node is enlarged (nearly 3x normal). There is a diffuse and marked increase in the paracortical and medullary areas and cellularity; these cells are organized as prominent chords, and they are larger and blast-like. Lymphoid follicles are increased in size and some have germinal centers.

#### Morphological Diagnosis:

**Distribution:** Diffuse; **Severity:** mild; **MPATH Diagnosis:** hyperplasia MPATH:134

#### Definitive Diagnosis:

Lymphoid hyperplasia

#### retina (MA:0000276)

#### Histopath Description:

There are clusters of external nuclear structures within the layer of rods and cons.

#### Morphological Diagnosis:

**Distribution:** Focal; **Severity:** mild; **MPATH Diagnosis:** developmental and structural abnormality MPATH:55

#### Definitive Diagnosis:

## Retinal dysplasia

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**AnimalID: M00239415 Sec24a hom****Histopathology Findings:****liver (MA:0000358)****Histopath Description:**

The overall hepatic lobular architecture is normal. Nearly 20% of hepatocytes notably within the midzonal region contain large (8-12 um in diameter) intracytoplasmic clear vacuoles (macrovesicular lipid).

**Morphological Diagnosis:**

**Distribution:** Multifocal; **Severity:** mild; **MPATH Diagnosis:** lipid deposition MPATH:42

**Definitive Diagnosis:**

Hepatic lipidosis

**Histopathology Comments:**

Hepatocellular vacuolar change of variable degree suggestive of lipidosis is present in all mice from WTSI, consistent with high lipid diet.

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**AnimalID: M00239698 Sec24a hom****Histopathology Findings:****liver (MA:0000358)****Histopath Description:**

The overall hepatic lobular architecture is normal. Nearly 50% of hepatocytes notably within the midzonal region contain large (8-12 um in diameter) intracytoplasmic clear vacuoles (macrovesicular lipid).

**Morphological Diagnosis:**

**Distribution:** Multifocal; **Severity:** mild; **MPATH Diagnosis:** lipid deposition MPATH:42

**Definitive Diagnosis:**

Hepatic lipidosis

**Histopathology Comments:**

Hepatocellular vacuolar change of variable degree suggestive of lipidosis is present in all mice from WTSI, consistent with high lipid diet.

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

There is a mild enlargement of the third ventricle.

**Morphological Diagnosis:**

**Severity:** mild; **MPATH Diagnosis:** degenerative change MPATH:14

**Definitive Diagnosis:**

hydrocephalus, third ventricle

**Histopathology Comments:**

Variable degree of hydrocephalus is observed in a proportion of wild type C57 Black 6 mice.

**Report Summary and Recommendation:**

Hepatic lipidosis is not seen or very minimally observed in this line. Retinal dysplasia is observed in one mouse. Recently a mutation in Crb1 is confirmed rd8 mutation in the Crb1 gene in C57BL/6N substrain is associated with multiple light-colored spots in the fundus of the eye that correspond histologically to retinal folds, pseudorosettes, and focal retinal dysplasia and degeneration. Hence retinal lesions in this line may be a background lesion.

Liver - lipid depletion: MPATH:52