



# CMHD Pathology Report



## CMHD Pathology Core

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ReportID: Report Date: May 21, 2013  
Pathologist: Dr. H. Adissu

## Mouse Genetics Project

Wellcome Trust Sanger  
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Hinxton, Cambridge  
CB10 1SA  
UK

CMHD LabID: N13-233

## Relevant History:

Phenotype

hindlimb paralysis  
tremors

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## AnimalID: M00386485 (Male)

### Histopathology Findings:

#### liver (MA:0000358)

##### Histopath Description:

severe lipidosis

##### Morphological Diagnosis:

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

##### Definitive Diagnosis:

Hepatic lipidosis

#### retina (MA:0000276)

##### Histopath Description:

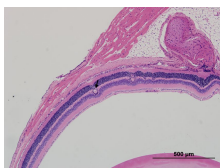
Involving one eye, there are clusters of external nuclear structures within the internal plexiform layer.

##### Morphological Diagnosis:

**Distribution:** Focal; **Severity:** mild;

##### Definitive Diagnosis:

Retinal dysplasia



Retina, dysplasia,  
10x, HE

#### brown fat (MA:0000057)

##### Histopath Description:

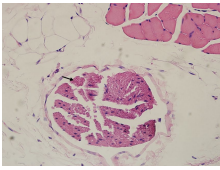
There is focally extensive hyperplasia of brown fat infiltrated with low numbers of inflammatory cells (lymphocytes, macrophages and rare neutrophils)

##### Morphological Diagnosis:

**Duration:** Chronic-active; **Distribution:** Focal; **Severity:** mild; **MPATH Diagnosis:** steatitis MPATH:636

##### Definitive Diagnosis:

Steatitis with hyperplasia



Peripheral nerve,  
normal, 40x, HE

**AnimalID: M00386484 (Male)**

**Histopathology Findings:**

**liver (MA:0000358)**

**Histopath Description:**

severe lipidosis

**Morphological Diagnosis:**

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

**Definitive Diagnosis:**

Hepatic lipidosis

**retina (MA:0000276)**

**Histopath Description:**

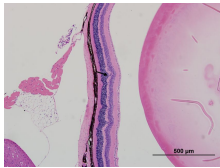
Involving one eye, there are clusters of external nuclear structures within the internal plexiform layer.

**Morphological Diagnosis:**

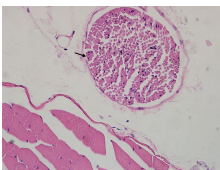
**Distribution:** Focal; **Severity:** mild;

**Definitive Diagnosis:**

Retinal dysplasia



Retina, dysplasia,  
10x, HE



Peripheral nerve,  
normal, 40x, HE

**AnimalID: M00386491 (Female)**

**Histopathology Findings:**

**liver (MA:0000358)**

**Histopath Description:**

moderate lipidosis

**Morphological Diagnosis:**

**Distribution:** multifocal to coalescing; **Severity:** moderate; **MPATH Diagnosis:** steatosis MPATH:622

**Definitive Diagnosis:**

Hepatic lipidosis

**retina (MA:0000276)**

**Histopath Description:**

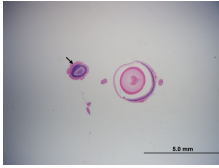
microphthalmia

**Morphological Diagnosis:**

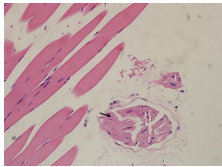
**Distribution:** unilateral; **Severity:** mild;

**Definitive Diagnosis:**

Microphthalmia, unilateral



Eye, unilateral  
microphthalmia, HE  
1.25x



Peripheral nerve,  
normal, 40x, HE

**AnimalID: M00386490 (Female)**

**Histopathology Findings:**

**liver (MA:0000358)**

**Histopath Description:**

severe lipidosis

**Morphological Diagnosis:**

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

**Definitive Diagnosis:**

Hepatic lipidosis

**retina (MA:0000276)**

**Histopath Description:**

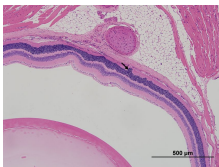
Involving one eye, there are clusters of external nuclear structures within the internal plexiform layer.

**Morphological Diagnosis:**

**Distribution:** Focal; **Severity:** mild;

**Definitive Diagnosis:**

Retinal dysplasia



Retina, dysplasia,  
10x, HE

**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.

**spleen (MA:0000141)**

**Histopath Description:**

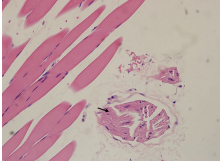
mild erythroid hyperplasia

**Morphological Diagnosis:**

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

**Definitive Diagnosis:**

Splenic erythroid hyperplasia



Peripheral nerve,  
normal, 40x, HE

**Report Summary and Recommendation:**

All mice have ocular abnormality (one mouse with microphthalmia and three with retinal dysplasia). These abnormalities are considered background lesions in B6 strain. We did not find any lesions within central and peripheral nervous tissues and muscles to explain the tremors and hindlimb paralysis observed in this line. Image of hindlimb nerves and musculature are included. Other lesions are attributable to diet or strain background. Further review of the brain is considered (updated results will be communicated and appended)