



# CMHD Pathology Report



## CMHD Pathology Core

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## Mouse Genetics Project

Wellcome Trust Sanger  
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Campus  
Hinxton, Cambridge  
CB10 1SA  
UK

CMHD LabID: N13-563

## Relevant History:

Phenotype:  
- chromosomal instability  
- increased chromosomal stability

## AnimalID: M00655072 (Male)

### Histopathology Findings:

#### liver (MA:0000358)

##### Histopath Description:

diffuse lipidosis

##### Morphological Diagnosis:

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

##### Definitive Diagnosis:

hepatic steatosis

#### 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

## 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: M00655974 (Male)

### Histopathology Findings:

#### liver (MA:0000358)

##### Histopath Description:

diffuse lipidosis

##### Morphological Diagnosis:

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

##### Definitive Diagnosis:

hepatic steatosis

**retina (MA:0000276)****Histopath Description:**

Involving one eye, there are clusters of external nuclear structures within the internal and 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, testis, epididymis, seminal vesicle, and prostate.

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**AnimalID: M00655980 (Female)****Histopathology Findings:****liver (MA:0000358)****Histopath Description:**

diffuse lipidosis

**Morphological Diagnosis:**

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

**Definitive Diagnosis:**

hepatic steatosis

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

There is mild dilation of the lateral ventricles

**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).

**parathyroid gland (MA:0000128)****Histopath Description:**

The parathyroid gland is partially replaced by a lymphoid tissue reminiscent of thymic tissue.

**Morphological Diagnosis:**

**Distribution:** multifocal;

**Definitive Diagnosis:**

Ectopic thymic tissue

**Histopathology Comments:**

incidental

**retina (MA:0000276)****Histopath Description:**

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

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**AnimalID: M00655979 (Female)****Histopathology Findings:****liver (MA:0000358)****Histopath Description:**

diffuse lipidosis

**Morphological Diagnosis:**

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

**Definitive Diagnosis:**

hepatic steatosis

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

There is mild dilation of the lateral ventricles

**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).

**sternum (MA:0001331)****Histopath Description:**

There is a full thickness fracture between the 4th and 5th sternabra segments. There is marked nodular hyperplasia of the cartilage tissue surrounding the fracture (calus)

**Morphological Diagnosis:**

**Distribution:** focally extensive; **MPATH Diagnosis:** inflammation MPATH:212

**Definitive Diagnosis:**

Sternal osteoarthritis with fracture and regenerative chondroid hyperplasia.

**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:**

We did not find correlative lesions to chromosomal instability documented in clinical phenotyping. Lesions in this line are attributable to diet or strain background.