

# CMHD Pathology **Report**



## **CMHD Pathology Core**

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# **Mouse Genetics Project**

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

CMHD LabID: N13-567

**Relevant History:** 

Phenotype:

No in-life phenotype

AnimalID: M00947081 (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

thymus (MA:0000142)

**Histopath Description:** 

There are two 50 um diamater epithelial cysts.

**Morphological Diagnosis:** 

Distribution: multifocal; MPATH Diagnosis: cyst MPATH:62

**Definitive Diagnosis:** 

Epithelial cyst

**Histopathology Comments:** 

This is a developmental abnormality commonly seen in mice.

## 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: M00947082 (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

## adrenal gland (MA:0000116)

## **Histopath Description:**

There is a small, well-circumscribed mass in the cortex. It is encapsulated by a thin layer of pale eosinophlic material and fusiform cells (connective tissue with fibroblasts) and is made of nests of polygonal cells interspersed by a very thin fibrovascular membrane. The architecture is reminisecent of the zona glomerulosa and zona fasciculate of the mature adrenal gland.

# **Morphological Diagnosis:**

**Distribution:** focal;

## **Definitive Diagnosis:**

accessory adrenal cortical tissue

### 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: M00979053 (Male)

## **Histopathology Findings:**

## kidney (MA:0000368)

#### **Histopath Description:**

The renal pelvis is dilated. There is a segmental dysplasia of the renal parenchyma affecting one-fifth of the kidney. In this region, numerous small glomeruli are present admixed with scant basophilic poorly differentiated spindle cells (renal mesenchyme) and occasional basophilic hypertrophic tubules. Many immature (fetal) glomeruli are present within the affected segment.

## **Morphological Diagnosis:**

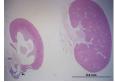
Distribution: segmental;

## **Definitive Diagnosis:**

Unilateral and segmental renal dysplasia (developmental arrest) with mild hydronephrosis.

### **Histopathology Comments:**

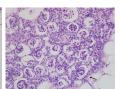
Segmental renal dysplasia is unique lesion.



Kidney, segmental renal dysplasia, 1.25x, HE



Kidney, segmental renal dysplasia, 10x, HE



Kidney, segmental renal dysplasia, 40x, HE

## liver (MA:0000358)

## **Histopath Description:**

mild lipidosis

#### **Morphological Diagnosis:**

Distribution: multifocal; Severity: mild;

## **Definitive Diagnosis:**

hepatic lipidosis

# 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).

#### 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: M00909896 (Male)

## **Histopathology Findings:**

#### testis (MA:0000411)

#### **Histopath Description:**

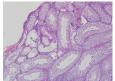
There is multifocal vacuolar degeneration and atrophy of the seminiferous tubules affecting 10% of the testicular parenchyma.

## **Morphological Diagnosis:**

**Distribution:** multifocal; **Severity:** moderate;

#### **Definitive Diagnosis:**

Testicular degeneration and atrophy





Testis, degeneration and atrophy, 10x, HE

Testis, degeneration and atrophy, 20x, HE

### adrenal gland (MA:0000116)

#### **Histopath Description:**

There is a small, well-circumscribed mass in the cortex. It is encapsulated by a thin layer of pale eosinophlic material and fusiform cells (connective tissue with fibroblasts) and is made of nests of polygonal cells interspersed by a very thin fibrovascular membrane. The architecture is reminisecent of the zona glomerulosa and zona fasciculate of the mature adrenal gland.

# **Morphological Diagnosis:**

**Distribution:** focal; **Definitive Diagnosis:** 

Definitive Diagnosis:

accessory adrenal cortical tissue

## liver (MA:0000358)

# **Histopath Description:**

diffuse lipidosis

## **Morphological Diagnosis:**

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

#### **Definitive Diagnosis:**

hepatic steatosis

#### 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.

## **Report Summary and Recommendation:**

Lesions of interest in this line are segmental renal dysplasia (1/4) and testicular degeneration and atrophy (1/2 males). Lesions are incidental or attributable to diet or strain background.

Summary: Segmental renal dysplasia (1/4); Testicular degeneration and atrophy (1/2 males).