

#### **CMHD Pathology Core**

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# **CMHD Pathology Report**

Principle Investigator: Dr. Colin McKerlie ICSIG

Institute: Sick Kids

Address:

ReportID: Report Date: November 23,

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Pathologist: H. Adissu



**Mouse Genetics Project** 

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Mouse Portal Europhenome

CMHD LabID: N11-378

#### AnimalID: M00311103 Slc35f1 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; multifocal inflammatory foci

## **Histopathology Comments:**

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

#### salivary gland (MA:0000346)

#### **Histopath Description:**

There is a focal interstitial aggregate of histiocytes and lymphocytes.

## **Morphological Diagnosis:**

**Duration:** Chronic; **Distribution:** Focal; **Severity:** mild; **MPATH Diagnosis:** inflammation MPATH:212

#### **Definitive Diagnosis:**

Interstitial histiocytic and lymphocytic inflammatory infiltrates

## **Histopathology Comments:**

This is a common and insignificant incidental finding in mice.

## AnimalID: M00170689 Slc35f1 hom

## **Histopathology Findings:**

liver (MA:0000358)

## **Histopath Description:**

lipid accumulation similar to M0018944 Adam 17 Het

#### Morphological Diagnosis:

Distribution: Diffuse; Severity: moderate; 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. See a representative image of diffuse hepatocellular lipidosis (Snip1 WT M00383263).

#### stomach (MA:0000353)

## **Histopath Description:**

There are rare eosinophils and neutrophils within the deep lamina propria

#### **Morphological Diagnosis:**

**Duration:** Sub-acute; **Distribution:** Multifocal; **Severity:** mild; **MPATH Diagnosis:** 

inflammation MPATH:212

#### **Definitive Diagnosis:**

Gastritis, suppurative

#### **Histopathology Comments:**

This lesion is most commonly associated with Helicobacter infection. Further investigation is suggested using histochemistry (Silver stain) or colony fecal PCR.

#### brain (MA:0000168)

#### **Histopath Description:**

There is a mild enlargement of the lateral ventricle.

## **Morphological Diagnosis:**

Severity: mild; MPATH Diagnosis: hydrocephalus MPATH:639

#### **Definitive Diagnosis:**

hydrocephalus, lateral ventricle

#### **Histopathology Comments:**

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

#### AnimalID: M00178062 Slc35f1 hom

#### **Histopathology Findings:**

#### liver (MA:0000358)

## **Histopath Description:**

lipid accumulation similar to M0018944 Adam 17 Het

## **Morphological Diagnosis:**

Distribution: Diffuse; Severity: moderate; 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. See a representative image of diffuse hepatocellular lipidosis (Snip1 WT M00383263).

## spleen (MA:0000141)

#### **Histopath Description:**

The overall splenic architecture is within normal limits. The lymphoid follicles and the marginal zones are mildly and diffusely enlarged. Large numbers of plasma cells are present at margins of follicles. The marginal zones in some foci are increased by a thickness of 3-4 cell layer. The cells within the marginal zone are mostly of medium size with abundant gray fibrillar cytoplasm, central to eccentric round to polygonal, open, finely stippled nuclei, and moderately prominent central nucleoli (interpreted as macrophages). Apoptotic bodies are present within the cytoplasm of macrophages (tingible body macrophages) within the within priarteriolar lymphoid sheaths and follicles. There is extramedullary hematopoiesis in the red pulp

## **Morphological Diagnosis:**

**Duration:** Chronic; **Distribution:** Multifocal; **Severity:** mild; **MPATH Diagnosis:** hyperplasia MPATH:134

#### **Definitive Diagnosis:**

Follicular and marginal zone hyperplasia

## **Histopathology Comments:**

The marginal zone is involved in screening the systemic circulation for antigens and pathogens and plays important role in antigen processing. However, we did not see evidence of this elsewhere in the body.

#### stomach (MA:0000353)

#### **Histopath Description:**

There are large numbers of neutrophils within the deep lamina propria

#### **Morphological Diagnosis:**

**Duration:** Sub-acute; **Distribution:** Multifocal; **Severity:** moderate; **MPATH Diagnosis:** 

inflammation MPATH:212

## **Definitive Diagnosis:**

Gastritis, suppurative

#### **Histopathology Comments:**

This lesion is most commonly associated with Helicobacter infection. Further investigation is suggested using histochemistry (Silver stain) or colony fecal PCR.

#### pancreas (MA:0000120)

#### **Histopath Description:**

There are multifocal perivascular interstitial aggregate of mononuclear inflammatory cells.

#### Morphological Diagnosis:

**Duration:** Chronic; **Distribution:** Multifocal; **Severity:** mild; **MPATH Diagnosis:** inflammation MPATH:212

#### **Definitive Diagnosis:**

Interstitial pancreatitis, lymphocytic and histiocytic.

#### **Histopathology Comments:**

Aggregates of mononuclear inflammatory cells are occasionally seen within the pancreatic interstitium. This lesion is considered incidental and clinically insignificant.

## brain (MA:0000168)

## **Histopath Description:**

There is a 200 um diameter dermoid cyst within the hippocampal commisure. The cyst is keratin-filled and is lined by a well-differentiated simple squamous epithelium. The surrounding brain tissue is mildly compressed.

## **Morphological Diagnosis:**

Distribution: Focal; Severity: mild; MPATH Diagnosis: dermoid cyst MPATH:311

#### **Definitive Diagnosis:**

Cerebral dermoid cyst (dermoid sinus)

## **Histopathology Comments:**

Dermoid cyst is caused by defective epidermal closure along embryonic fissures isolating an island of ectoderm in the dermis or subcutis. The cyst was small with minimal compression of the surrounding brain tissue; its significance is uncertain.

## AnimalID: M00178094 Slc35f1 hom

## **Histopathology Findings:**

#### liver (MA:0000358)

#### **Histopath Description:**

The overall hepatic lobular architecture is normal. Nearly 5-10% 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:**

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

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#### **Histopath Description:**

There is a focal interstitial aggregate of histiocytes and lymphocytes.

## **Morphological Diagnosis:**

**Duration:** Chronic; **Distribution:** Focal; **Severity:** mild; **MPATH Diagnosis:** inflammation MPATH:212

## **Definitive Diagnosis:**

Interstitial histiocytic and lymphocytic inflammatory infiltrates

# **Histopathology Comments:**

This is a common and insignificant incidental finding in mice.

## **Report Summary and Recommendation:**

Incidental lesions attributable to diet or strain background are observed in this line.