



## CMHD Pathology Report



### CMHD Pathology Core

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2014  
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### Mouse Genetics Project

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[Mouse Portal](#)  
[Europhenome](#)

### CMHD LabID: N13-925

#### Relevant History:

Phenotypes:  
decreased circulating alkaline phosphatase level  
decreased circulating glucose level  
vertebral fusion  
abnormal cranium morphology  
increased mean platelet volume  
increased circulating alanine transaminase level  
increased circulating aspartate transaminase level  
partial lethality  
decreased bone mineral content  
decreased bone trabecula number  
abnormal craniofacial development  
abnormal eye development  
fetal edema  
abnormal brainstem auditory evoked potential

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#### AnimalID: M00205003 (Male)

##### 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: M00204998 (Male)

##### Histopathology Findings:

###### liver (MA:0000358)

##### Histopath Description:

Severe lipidosis

##### Morphological Diagnosis:

**Distribution:** diffuse; **Severity:** extreme; **MPATH Diagnosis:** steatosis MPATH:622; **MPATH Process Term:** lipid deposition MPATH:42

##### Definitive Diagnosis:

Hepatic lipidosis

##### Histopathology Comments:

This is dietary steatosis

###### brain (MA:0000168)

##### Histopath Description:

There is marked dilation of the lateral ventricles

##### Morphological Diagnosis:

**Distribution:** diffuse; **Severity:** severe; **MPATH Diagnosis:** hydrocephalus MPATH:639;

**MPATH Process Term:** degenerative change MPATH:14

**Definitive Diagnosis:**

Dilation of the brain ventricles

**Histopathology Comments:**

Mild to moderate dilation of the ventricles is a background condition in mice of C57BL/6N background

**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: M00215317 (Female)**

**Histopathology Findings:**

**sternum (MA:0001331)**

**Histopath Description:**

The sternum is moderately curved outwardly

**Morphological Diagnosis:**

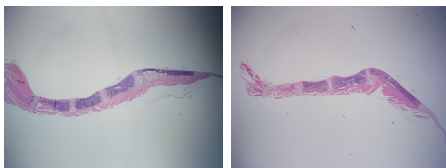
**Severity:** moderate; **MPATH Process Term:** developmental and structural abnormality MPATH:55

**Definitive Diagnosis:**

Curved sternum

**Histopathology Comments:**

This lesion is suggestive of pectus carinatum (outward protrusion of the sternum)



Sternum, outward curving (protrusion), 1.25x, HE.      Sternum, Wt, normal, 1.25x, HE.

**liver (MA:0000358)**

**Histopath Description:**

Severe lipidosi

**Morphological Diagnosis:**

**Distribution:** diffuse; **Severity:** extreme; **MPATH Diagnosis:** steatosis MPATH:622; **MPATH Process Term:** lipid deposition MPATH:42

**Definitive Diagnosis:**

Hepatic lipidosi

**Histopathology Comments:**

This is dietary 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, uterus, oviduct, and ovary, and mammary gland.

**AnimalID: M00217355 (Female)**

**Histopathology Findings:**

**liver (MA:0000358)**

**Histopath Description:**

Severe lipidosi

**Morphological Diagnosis:**

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

**Process Term:** lipid deposition MPATH:42

**Definitive Diagnosis:**

Hepatic lipidosis

**Histopathology Comments:**

This is dietary 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, uterus, oviduct, and ovary, and mammary gland.

**Report Summary and Recommendation:**

Outward protrusion or curving of the sternum is present in one mouse. This sternal deformity is consistent with pectus carinatum. In humans, this deformity is associated with vertebral deformities such as scoliosis (as is the case in this mouse line). We did not see morphological correlate to the rest of the phenotypes documented by clinical phenotyping. The auricular structures were not available to rule out otitis or other causes of conductive hearing loss that could explain the abnormal brainstem auditory evoked potential in this line.

Line summary:

Sternum: Sternal deformity (pectus carinatum) - 1/4