### MicroCT E18.5 IMPC\_EMA\_001

### **Purpose**

To assess morphological defects in E18.5 embryos from lethal or subviable strains with MicroCT.

### **Experimental Design**

- Set up timed matings with heterozygous mice
- Day 0 is defined as the midpoint of the prior dark cycle following the identification of a copulation plug.
- Collect embryos at E18.5 with 3 minimum homozygous and 1 littermate control
- Ensure embryos are bleed as much as possible.
- Reconstruct the scans according to manufacturer's instructions.

#### **Procedure**

- 1. Set up timed mating with heterozygous animals. Dissect and collect >=3 homozygote embryos.
- 2. Process the embryos using the centre's staining and embedding protocol . Centre-specific methods are recorded within a document
- 3. Scan and generate reconstructions of embryos.

#### **Notes**

Embryos may be processed for Histopathology.

#### **Parameters and Metadata**

#### Date of Scan IMPC EMA 012 001 | v1.0

procedureMetadata

Req. Analysis: false Req. Upload: true Is Annotated: false

Req. Analysis: false	Req. Upload: true	Is Annotated: false		
Unit Measured: kV				
E18.5 MicroCT Preparation protocol IMPC_EMA_008_001   v1.0 procedureMetadata				
Req. Analysis: false	Req. Upload: true	Is Annotated: false		
procedureMetadata	PC_EMA_002_001   v1.0			
Req. Analysis: false	Req. Upload: true	Is Annotated: false		
Comoro to Course				
Camera to Source procedureMetadata	IMPC_EMA_016_001   v1.1			
Req. Analysis: false	Req. Upload: true	Is Annotated: false		
Unit Measured: mm				

# Image Pixel Size IMPC\_EMA\_007\_001 | v1.0

procedureMetadata

Req. Analysis: false	Req. Upload: true	Is Annotated: false		
<b>Unit Measured:</b> μm				
Equipment Manufacturer IMPC_EMA_004_001   v1.0 procedureMetadata				
Req. Analysis: false	Req. Upload: true	Is Annotated: false		
Object to Source IMPC_EMA_015_001   v1.0 procedureMetadata				
Req. Analysis: false	Req. Upload: true	Is Annotated: false		
Unit Measured: mm				
Date Preparation Finished IMPC_EMA_011_001   v1.0 procedureMetadata				
Req. Analysis: false	Req. Upload: true	Is Annotated: false		

Date equipment last calibrated IMPC_EMA_009_001   v1.0 procedureMetadata					
Req. Analysis: false	Req. Upload: false	Is Annotated: false			
Embryo reconstruction IMPC_EMA_001_001   v1.1 seriesMediaParameter					
Req. Analysis: false	Req. Upload: true	Is Annotated: false			
Increments: Minimum 1					
Equipment Model procedureMetadata	IMPC_EMA_005_001   v1.0				
Req. Analysis: false	Req. Upload: true	Is Annotated: false			
Equipment ID IMPC_EMA_003_001   v1.0 procedureMetadata					
Req. Analysis: false	Req. Upload: true	Is Annotated: false			

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# **Equipment Version** IMPC\_EMA\_006\_001 | v1.0

procedureMetadata

**Increments:** Minimum 1

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Source Current IMPoprocedureMetadata	C_EMA_014_001   v1.1	
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Unit Measured: uA		
Date of Sacrifice IM procedureMetadata	PC_EMA_010_001   v1.0	
Req. Analysis: false	Req. Upload: true	Is Annotated: false
Screenshots IMPC_E seriesMediaParameter	MA_017_001   v1.1	
Req. Analysis: false	Req. Upload: false	Is Annotated: false

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