

# 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  $\geq 3$  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

### Embryo reconstruction IMPC\_EMA\_001\_001 | v1.1

seriesMediaParameter

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Increments: Minimum 1

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**Experimenter ID** IMPC\_EMA\_002\_001 | v1.0  
procedureMetadata

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

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**Equipment ID** IMPC\_EMA\_003\_001 | v1.0  
procedureMetadata

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

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**Equipment Manufacturer** IMPC\_EMA\_004\_001 | v1.0  
procedureMetadata

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

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**Equipment Model** IMPC\_EMA\_005\_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

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

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

procedureMetadata

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

Unit Measured:  $\mu\text{m}$

**E18.5 MicroCT Preparation protocol** IMPC\_EMA\_008\_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

**Date of Sacrifice** IMPC\_EMA\_010\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

## Date Preparation Finished

IMPC\_EMA\_011\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

## Date of Scan

IMPC\_EMA\_012\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

## Source Voltage

IMPC\_EMA\_013\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Unit Measured: kV

## Source Current

IMPC\_EMA\_014\_001 | v1.1

procedureMetadata

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

Unit Measured: uA

**Object to Source** IMPC\_EMA\_015\_001 | v1.0

procedureMetadata

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

Unit Measured: mm

**Camera to Source** IMPC\_EMA\_016\_001 | v1.1

procedureMetadata

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

Unit Measured: mm

**Screenshots** IMPC\_EMA\_017\_001 | v1.1

seriesMediaParameter

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

**Increments:** Minimum 1

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