

# 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

---

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

procedureMetadata

**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

---

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

procedureMetadata

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** false

---

## **Equipment Model** IMPC\_EMA\_005\_001 | v1.0

procedureMetadata

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** false

---

## **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

