

# OPT E9.5 IMPC\_EOL\_002

## Purpose

To assess morphological defects in E9.5 embryos from lethal strains with OPT.

## 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 E9.5 with 3 minimum homozygous and 1 littermate control
- Ensure embryos are bleed as much as possible.
- Reconstruct the scans according to Mark'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

**Date of Annotation** IMPC\_EOL\_053\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

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**Embryo reconstruction** IMPC\_EOL\_001\_001 | v1.1

seriesMediaParameter

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Increments: Minimum 1

Experimenter ID

IMPC\_EOL\_002\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Equipment ID

IMPC\_EOL\_003\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Equipment Manufacturer

IMPC\_EOL\_004\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Equipment Model

IMPC\_EOL\_005\_001 | v1.0

procedureMetadata

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

**Image Pixel Size** IMPC\_EOL\_006\_001 | v1.0

procedureMetadata

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

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

**E9.5 OPT preperation protocol** IMPC\_EOL\_007\_001 | v1.0

procedureMetadata

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

**Date equipment last calibrated** IMPC\_EOL\_008\_001 | v1.0

procedureMetadata

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

**Date of Sacrifice** IMPC\_EOL\_009\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

**Date Preparation Finished** IMPC\_EOL\_010\_001 | v1.1

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

**Date of Scan** IMPC\_EOL\_011\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

**Screenshots** IMPC\_EOL\_012\_001 | v1.1

seriesMediaParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

Increments: Minimum 1

**Hindbrain** IMPC\_EOL\_013\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## 4th ventricle IMPC\_EOL\_014\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Mesencephalic vesicle IMPC\_EOL\_015\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Forebrain IMPC\_EOL\_016\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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**Telecenphalic (lateral) ventricle** IMPC\_EOL\_017\_001 | v1.0

simpleParameter

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

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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**Rhombomeres** IMPC\_EOL\_018\_001 | v1.0

simpleParameter

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

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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**Notochord** IMPC\_EOL\_019\_001 | v1.0

simpleParameter

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

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Infundibular recess of 3rd ventricle IMPC\_EOL\_020\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Rathke's pouch IMPC\_EOL\_021\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Optic vesicle IMPC\_EOL\_022\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Otocyst IMPC\_EOL\_023\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## 1st branchial arch IMPC\_EOL\_024\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## 1st arch artery IMPC\_EOL\_025\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## 2nd branchial arch IMPC\_EOL\_026\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,



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## 2nd arch artery IMPC\_EOL\_027\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Oropharynx IMPC\_EOL\_028\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## 3rd branchial arch IMPC\_EOL\_029\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## 3rd arch artery IMPC\_EOL\_030\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Aortic sac IMPC\_EOL\_031\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: true

Is Annotated: true

Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Common atrial chamber IMPC\_EOL\_032\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: true

Is Annotated: true

Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Atrioventricular canal IMPC\_EOL\_033\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: true

Is Annotated: true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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**Heart ventricle** IMPC\_EOL\_034\_001 | v1.0

simpleParameter

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

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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**Primitive heart tube cardiac muscle** IMPC\_EOL\_035\_001 | v1.0

simpleParameter

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

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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**Dorsal aorta** IMPC\_EOL\_036\_001 | v1.0

simpleParameter

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

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Hepatic primordium IMPC\_EOL\_037\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Hindgut IMPC\_EOL\_038\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Forelimb bud IMPC\_EOL\_039\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Neural tube IMPC\_EOL\_040\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Caudal neuropore IMPC\_EOL\_041\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Somite IMPC\_EOL\_042\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Somite count IMPC\_EOL\_043\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** false

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## Delayed embryonic development IMPC\_EOL\_044\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: true

Is Annotated: true

Options: yes, no,

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## Vitelline artery IMPC\_EOL\_045\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Umbilical vein IMPC\_EOL\_046\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Foregut IMPC\_EOL\_047\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## **Midgut** IMPC\_EOL\_048\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## **Pericardial cavity** IMPC\_EOL\_049\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## **Peritoneal cavity** IMPC\_EOL\_050\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Sinus venosus IMPC\_EOL\_051\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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## Annotator ID IMPC\_EOL\_052\_001 | v1.0

procedureMetadata

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** false

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