# 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 >=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_EOL_001_001 | v1.1

seriesMediaParameter

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

**Increments:** Minimum 1

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## Experimenter ID IMPC_EOL_002_001 | v1.0

procedureMetadata

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

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## Equipment ID IMPC_EOL_003_001 | v1.0

procedureMetadata

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

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## Equipment Manufacturer IMPC_EOL_004_001 | v1.0

procedureMetadata

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

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## Equipment Model IMPC_EOL_005_001 | v1.0

procedureMetadata

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

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## Image Pixel Size IMPC_EOL_006_001 | v1.0

procedureMetadata

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

**Unit Measured:** µm

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## E9.5 OPT preperation protocol IMPC_EOL_007_001 | v1.0

procedureMetadata

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

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## Date equipment last calibrated IMPC_EOL_008_001 | v1.0

procedureMetadata

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

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## Date of Sacrifice IMPC_EOL_009_001 | v1.0

procedureMetadata

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

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## Date Preparation Finished IMPC_EOL_010_001 | v1.1

procedureMetadata

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

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# Date of Scan IMPC_EOL_011_001 | v1.0

procedureMetadata

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

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# Screenshots IMPC_EOL_012_001 | v1.1

seriesMediaParameter

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

**Increments:** Minimum 1

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# 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

## Date of Annotation IMPC_EOL_053_001 | v1.0

procedureMetadata

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