

# Eye Morphology IMPC\_EYE\_001

## Purpose

To detect abnormalities in eye morphology.

## Experimental Design

- **Minimum number of animals** : 7M + 7F
- **Age at test**: Week 15
- **Sex**: We do not expect the results of this test to show sexual dimorphism

## Procedure

1. Examine the anterior of both eyes (e.g. with slit lamp) and record any abnormalities
2. Test the iris/pupil light response
3. Image abnormal eyes as a minimum or all eyes if capacity permits
4. Dilate both eyes
5. Examine the anterior and posterior of both dilated eyes (e.g. with slit lamp and ophthalmoscope) and record any abnormalities
6. Image abnormal eyes as a minimum or all eyes if capacity permits

OCT:

1. Turn on the OCT and start the database
2. Anaesthetize mouse
3. Prepare mouse eyes with drops and place contact lens (focal length 10 mm) on the right eye
4. Enter mouse data in the "Create new patient file" area and switch to the "Acquisition" window
5. Move the OCT camera to the right position and activate measurement modus
6. Place mouse collaterally to the OCT camera on the right side of a platform that is fixed in front of the OCT lens
7. Search the contact lens in the live picture of the fundus image field and place the pupil of the mouse eye in the centre of the window
8. Move the OCT camera such that OCT lens and contact lens touch each other
9. Focus the fundus picture by slightly moving up/down or forward/backward
10. Save fundus images
11. Set the "Ref.Arm" ruler such that the section of the retina is placed in the centre of the blue rectangle
12. Set the mode of measurement on "vertical, horizontal line"
13. Move the blue horizontal line in the fundus image field to the optic nerve level
14. Save images of retinal sections
15. Move the OCT camera to the left position

16. Repeat measurement procedure for the left eye

### Scheimpflug Imaging:

1. Turn on the Pentacam and start the patient data management
2. Apply one drop 0.5% Atropine to each mouse eye for pupil dilation
3. Enter mouse data in the "Patient" group box and switch to the Scan menu
4. Activate the "1 Picture" modus in the "Image Options" area
5. Move Pentacam to the right position
6. Hold the mouse on a platform such that the vertical LED 475 nm light slit is orientated in the center of the right eye ball
7. Guarantee optimal focus by using the fine adjustment software tool in the adjustment window
8. Start imaging manually by pressing the "Start Scan" button
9. Scheimpflug images are saved automatically
10. Move Pentacam to the left position
11. Repeat measurement procedure for the left eye

## Notes

- As a minimum, all abnormalities should be imaged.
  - Where capacity permits, all mice can be imaged
- Majority of parameters can be analysed using the standard approach for assessing categorical data. To increase power for analysis purposes, where an abnormality is detected in the left, right or both eyes, the data may be combined to generate one "abnormal" category.
- Data for both eyes is recorded under one parameter to distinguish phenotypes of incomplete penetrance in individuals and if an observation for one or both eyes cannot be made, this is recorded as 'no data'. The IMPC analysis pipeline does not take into account whether an abnormality is fully penetrant or not and the same weight is given for an abnormal observations in one or both eyes. In cases where it is not possible to confirm if an abnormality is present or not, the data is not included in the statistical analysis. The following logic is applied in determining whether to include the data in analysis:
  - If at least one of the eyes shows an abnormality in a particular parameter, the data for that specimen will be included in the statistical analysis even if the other eye is marked as "no data".
  - If the eyes are marked as "no data", or one eye is normal and the other eye is "no data" for a particular parameter the data for that specimen will not be included in the statistical analysis.

### Data QC

Image QC is typically performed during data collection to ensure high quality images are captured whilst eyes are dilated etc.

## Parameters and Metadata

## Eye IMPC\_EYE\_001\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Description:** eye

**Options:** present, absent left eye, absent right eye, absent both eyes,

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## Bulging eye IMPC\_EYE\_002\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Description:** bulging\_eye

**Options:** absent, no data left eye, no data right eye, present left eye, present right eye, present both eyes, no data for both eyes, no data left eye, present right eye, no data right eye, present left eye,

---

## Eye Hemorrhage or Blood Presence IMPC\_EYE\_003\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Description:** eye\_hemorrhage\_or\_blood\_presence

**Options:** absent, no data left eye, no data right eye, present left eye, present right eye, present both eyes, no data for both eyes, no data left eye, present right eye, no data right eye, present left eye,

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## **Eyelid morphology** IMPC\_EYE\_004\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Description:** eyelid\_morphology

**Options:** normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

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## **Eyelid closure** IMPC\_EYE\_005\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Description:** eyelid\_closure

**Options:** normal, no data left eye, no data right eye, left eye closed, right eye closed, both eyes closed, no data for both eyes, no data left eye, right eye closed, no data right eye, left eye closed,

---

## Narrow eye opening IMPC\_EYE\_006\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Description: narrow\_eye\_opening

Options: normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

---

## Cornea IMPC\_EYE\_007\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: true

Is Annotated: true

Description: cornea

Options: normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

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## Corneal opacity IMPC\_EYE\_008\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: true

Is Annotated: true

Description: corneal\_opacity

**Options:** absent, no data left eye, no data right eye, present left eye, present right eye, present both eyes, no data for both eyes, no data left eye, present right eye, no data right eye, present left eye,

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## Corneal vascularization IMPC\_EYE\_009\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Description:** corneal\_vascularization

**Options:** absent, no data left eye, no data right eye, present left eye, present right eye, present both eyes, no data for both eyes, no data left eye, present right eye, no data right eye, present left eye,

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## Iris/Pupil IMPC\_EYE\_010\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Description:** iris\_pupil

**Options:** normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

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## Pupil Position IMPC\_EYE\_011\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Description:** pupil\_position

**Options:** normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

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## Pupil Shape IMPC\_EYE\_012\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Description:** pupil\_shape

**Options:** normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

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## Pupil Dilation IMPC\_EYE\_013\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Description:** pupil\_dilation

**Options:** normal, no data left eye, no data right eye, left eye dilated, right eye dilated, both eyes dilated, no data for both eyes, no data left eye, right eye dilated, no data right eye, left eye dilated,

---

## **Pupil Light Response** IMPC\_EYE\_014\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Description:** pupil\_light\_response

**Options:** normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

---

## **Iris Pigmentation** IMPC\_EYE\_015\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Description:** iris\_pigmentation

**Options:** normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

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## Lens IMPC\_EYE\_016\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: true

Is Annotated: true

Description: lens

Options: normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

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## Lens Opacity IMPC\_EYE\_017\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: true

Is Annotated: true

Description: lens\_opacity

Options: absent, no data left eye, no data right eye, present left eye, present right eye, present both eyes, no data for both eyes, no data left eye, present right eye, no data right eye, present left eye,

---

## Fusion between cornea and lens IMPC\_EYE\_018\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Description: fusion\_between\_cornea\_and\_lens

**Options:** absent, no data left eye, no data right eye, present left eye, present right eye, present both eyes, no data for both eyes, no data left eye, present right eye, no data right eye, present left eye,

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## **Synechia** IMPC\_EYE\_019\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Description:** synechia

**Options:** absent, no data left eye, no data right eye, present left eye, present right eye, present both eyes, no data for both eyes, no data left eye, present right eye, no data right eye, present left eye,

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## **Retina** IMPC\_EYE\_020\_001 | v1.1

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** false

**Description:** retina

**Options:** normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

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## Retinal Pigmentation IMPC\_EYE\_021\_001 | v1.1

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** false

**Description:** retinal\_pigmentation

**Options:** normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

---

## Retinal Structure IMPC\_EYE\_022\_001 | v1.1

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** false

**Description:** retinal\_structure

**Options:** normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

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## Optic Disc IMPC\_EYE\_023\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Description:** optic\_disc

**Options:** normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

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## Retinal Blood Vessels IMPC\_EYE\_024\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Description:** retinal\_blood\_vessels

**Options:** normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

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## Retinal Blood Vessels Structure IMPC\_EYE\_025\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Description:** retinal\_blood\_vessels\_structure

**Options:** normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

---

## Retinal Blood Vessels Pattern IMPC\_EYE\_026\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Description: retinal\_blood\_vessels\_pattern

Options: normal, no data left eye, no data right eye, left eye abnormal, right eye abnormal, both eyes abnormal, no data for both eyes, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

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## Persistence of hyaloid vascular system IMPC\_EYE\_027\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Description: persistence\_of\_hyaloid\_vascular\_system

Options: absent, no data left eye, no data right eye, present left eye, present right eye, present both eyes, no data for both eyes, no data left eye, present right eye, no data right eye, present left eye,

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## Slit Lamp observation IMPC\_EYE\_028\_001 | v1.1

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

Description: slit\_lamp\_observation

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## Ophthalmoscope Observation IMPC\_EYE\_029\_001 | v1.1

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

Description: ophthalmoscope\_observation

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## Slit Lamp Equipment ID IMPC\_EYE\_030\_001 | v1.2

procedureMetadata

Req. Analysis: false

Req. Upload: false

Is Annotated: false

Description: slit\_lamp\_equipment\_id

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## Slit Lamp Equipment Manufacturer IMPC\_EYE\_031\_001 | v1.2

procedureMetadata

Req. Analysis: true

Req. Upload: false

Is Annotated: false

Description: slit\_lamp\_equipment\_manufacturer

Options: Zeiss, Haag-Streit, MuLe, Kowa, CSO, Phoenix Research Labs, Topcon,

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## Slit Lamp Equipment Model IMPC\_EYE\_032\_001 | v1.2

procedureMetadata

Req. Analysis: true

Req. Upload: false

Is Annotated: false

Description: slit\_lamp\_equipment\_model

Options: SL30, SL130, BQ 900 LED/IM-900, S350, SL-15, SL 990, SL 139, 30 SL-M, Micron III slit lamp extension, SL-7E,

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## Ophthalmoscope Equipment ID IMPC\_EYE\_033\_001 | v1.2

procedureMetadata

Req. Analysis: false

Req. Upload: false

Is Annotated: false

Description: ophthalmoscope\_equipment\_id

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## Ophthalmoscope Equipment Manufacturer IMPC\_EYE\_034\_001 |

v1.2

procedureMetadata

Req. Analysis: true

Req. Upload: false

Is Annotated: false

Description: ophthalmoscope\_equipment\_manufacturer

Options: Haag-Streit, Heine, Phoenix, Kowa, Karl Storz / Nikon, Phoenix Research Labs, Heine / Volk, Keeler LTD,

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## Ophthalmoscope Equipment Model IMPC\_EYE\_035\_001 | v1.2

[procedureMetadata](#)

**Req. Analysis:** true

**Req. Upload:** false

**Is Annotated:** false

**Description:** ophthalmoscope\_equipment\_model

**Options:** Sigma 150K, Omega 500 Unplugged, Micron III, Genesis-D, OMEGA 180 / Superfield NC, Xenon Nova 175W light source + HOPKINS optic 1218AA /Nikon D5100 + 85 mm f/1.8 lens, Omega 180 / 60D, SL4 4AA, Genesis, Genesis-DF, Micron IV, Omega 500 / 60D,

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## Experimenter ID IMPC\_EYE\_036\_001 | v1.1

[procedureMetadata](#)

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** false

**Description:** experimenter\_id

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## Optical Coherence Tomography Equipment ID IMPC\_EYE\_037\_001 | v1.1

[procedureMetadata](#)

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** false

**Description:** optical\_coherence\_tomography\_equipment\_id



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## Optical Coherence Tomography Equipment Manufacturer

IMPC\_EYE\_038\_001 | v1.2

[procedureMetadata](#)

**Req. Analysis:** true

**Req. Upload:** false

**Is Annotated:** false

**Description:** optical\_coherence\_tomography\_equipment\_manufacturer

**Options:** Bioptigen, Heidelberg Engineering,

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## Optical Coherence Tomography Equipment Model IMPC\_EYE

\_039\_001 | v1.2

[procedureMetadata](#)

**Req. Analysis:** true

**Req. Upload:** false

**Is Annotated:** false

**Description:** optical\_coherence\_tomography\_equipment\_model

**Options:** EnvisuTM R-Series SDOIS, Envisu R2200, Spectralis,

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## Scheimpflug Equipment ID IMPC\_EYE\_040\_001 | v1.1

[procedureMetadata](#)

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** false

**Description:** scheimpflug\_equipment\_id

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## Scheimpflug Equipment Manufacturer IMPC\_EYE\_041\_001 | v1.4

procedureMetadata

Req. Analysis: true

Req. Upload: false

Is Annotated: false

Description: scheimpflug\_equipment\_manufacturer

Options: Oculus GmbH,

---

## Scheimpflug Equipment Model IMPC\_EYE\_042\_001 | v1.4

procedureMetadata

Req. Analysis: true

Req. Upload: false

Is Annotated: false

Description: scheimpflug\_equipment\_model

Options: Pentacam,

---

## Dilation Method IMPC\_EYE\_043\_001 | v1.0

procedureMetadata

Req. Analysis: false

Req. Upload: true

Is Annotated: false

Description: dilation\_method

**Options:** Atropine, Tropicamide, Tropicamide+Phenylephrin, None, Cyclopentolate hydrochloride, Phenylephrine hydrochloride, Atropine sulphate, Cyclopentolate hydrochloride+Phenylephrine hydrochloride,

---

## Topical Anesthetic IMPC\_EYE\_044\_001 | v1.1

procedureMetadata

**Req. Analysis:** true

**Req. Upload:** true

**Is Annotated:** false

**Description:** topical\_anesthetic

**Options:** Atropine, Oxybuprocain, No anesthesia, Mydriacyl, Phenylephrine hydrochloride, Hydrochloride, Atropine sulphate,

---

## General Anesthetic IMPC\_EYE\_045\_001 | v1.1

procedureMetadata

**Req. Analysis:** true

**Req. Upload:** true

**Is Annotated:** false

**Description:** general\_anesthetic

**Options:** Ketamine+Xylazine, No anesthesia, Isoflurane, Euthatal, Avertin, Ketamine+Medetomidine,

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## Date Slit Lamp equipment last calibrated IMPC\_EYE\_046\_001 | v1.1

procedureMetadata

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## Date Ophthalmoscope equipment last calibrated IMPC\_EYE\_047\_001 | v1.1

procedureMetadata

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## Date Scheimpflug equipment last calibrated IMPC\_EYE\_048\_001 | v1.1

procedureMetadata

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## Date OCT equipment last calibrated IMPC\_EYE\_049\_001 | v1.1

procedureMetadata

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## Images Ophthalmoscopy IMPC\_EYE\_050\_001 | v1.1

seriesMediaParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## Images Slit Lamp IMPC\_EYE\_051\_001 | v1.1

seriesMediaParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## Sheimpflug Lens description IMPC\_EYE\_052\_001 | v1.1

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## Scheimpflug description IMPC\_EYE\_053\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## Min left eye lens density IMPC\_EYE\_054\_001 | v1.2

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: %

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## Max left eye lens density IMPC\_EYE\_055\_001 | v1.1

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: %

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## Mean left eye lens density IMPC\_EYE\_056\_001 | v1.1

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: %

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## Min right eye lens density IMPC\_EYE\_057\_001 | v1.1

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: %

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## Max right eye lens density IMPC\_EYE\_058\_001 | v1.1

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: %

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## Mean right eye lens density IMPC\_EYE\_059\_001 | v1.1

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: %

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## Right corneal thickness IMPC\_EYE\_060\_001 | v1.2

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: um

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## Right anterior chamber depth IMPC\_EYE\_061\_001 | v1.2

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: um

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## Right total retinal thickness IMPC\_EYE\_062\_001 | v1.2

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: um

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## Right inner nuclear layer IMPC\_EYE\_063\_001 | v1.2

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: um

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## Right outer nuclear layer IMPC\_EYE\_064\_001 | v1.2

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true



Unit Measured: um

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## Right posterior chamber depth IMPC\_EYE\_065\_001 | v1.2

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: um

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## Left corneal thickness IMPC\_EYE\_066\_001 | v1.2

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: um

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## Left anterior chamber depth IMPC\_EYE\_067\_001 | v1.2

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: um

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## Left total retinal thickness IMPC\_EYE\_068\_001 | v1.2

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: um

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## Left inner nuclear layer IMPC\_EYE\_069\_001 | v1.2

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: um

---

## Left outer nuclear layer IMPC\_EYE\_070\_001 | v1.2

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: um

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## Left posterior chamber depth IMPC\_EYE\_071\_001 | v1.2

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: um

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## **B-scan of right retina** IMPC\_EYE\_072\_001 | v1.1

seriesMediaParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## **B-scan of left retina** IMPC\_EYE\_073\_001 | v1.1

seriesMediaParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## **VIP of right fundus** IMPC\_EYE\_074\_001 | v1.1

seriesMediaParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## **VIP of left fundus** IMPC\_EYE\_075\_001 | v1.1

seriesMediaParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## **B-scan of right cornea and lens** IMPC\_EYE\_076\_001 | v1.1

seriesMediaParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## **B-scan of left cornea and lens** IMPC\_EYE\_077\_001 | v1.1

seriesMediaParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## **VIP of right eye** IMPC\_EYE\_078\_001 | v1.1

seriesMediaParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## **VIP of left eye** IMPC\_EYE\_079\_001 | v1.1

seriesMediaParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

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## Corneal Sclerization IMPC\_EYE\_080\_001 | v1.1

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Options:** absent, no data left eye, no data right eye, no data for both eyes, present left eye, present right eye, present both eyes, no data left eye, present right eye, no data right eye, present left eye,

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## Corneal deposits IMPC\_EYE\_081\_001 | v1.1

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Options:** absent, no data left eye, no data right eye, no data for both eyes, present left eye, present right eye, present both eyes, no data left eye, present right eye, no data right eye, present left eye,

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## Iris transillumination IMPC\_EYE\_082\_001 | v1.1

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Options:** normal, no data left eye, no data right eye, no data for both eyes, left eye abnormal, right eye abnormal, both eyes abnormal, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

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## Vitreous IMPC\_EYE\_083\_001 | v1.1

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Options:** normal, no data left eye, no data right eye, no data for both eyes, left eye abnormal, right eye abnormal, both eyes abnormal, no data left eye, right eye abnormal, no data right eye, left eye abnormal,

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## Corneal mineralization IMPC\_EYE\_084\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Options:** absent, present left eye, present right eye, present both eyes, no data left eye, no data right eye, no data for both eyes, no data left eye, present right eye, no data right eye, present left eye,

---

## Corneal ulcer IMPC\_EYE\_085\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Options:** absent, present left eye, present right eye, present both eyes, no data left eye, no data right eye, no data for both eyes, no data left eye, present right eye, no data right eye, present left eye,

---

## Lacrimation IMPC\_EYE\_086\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Options:** absent, present left eye, present right eye, present both eyes, no data left eye, no data right eye, no data for both eyes, no data left eye, present right eye, no data right eye, present left eye,

---

## Right vitreous humor thickness IMPC\_EYE\_087\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

**Unit Measured:** um

---

## Left vitreous humour thickness IMPC\_EYE\_088\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

Unit Measured: um

---

## Ophthalmoscope Lens Model IMPC\_EYE\_089\_001 | v1.1

procedureMetadata

Req. Analysis: false

Req. Upload: false

Is Annotated: false

---

## Right eye diameter IMPC\_EYE\_090\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: mm

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## Left eye diameter IMPC\_EYE\_091\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: true

Unit Measured: mm

---



# Retina (combined) IMPC\_EYE\_092\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** false

**Is Annotated:** true

## Derivation:

retinaCombined('IMPC\_EYE\_020\_001', 'IMPC\_EYE\_021\_001', 'IMPC\_EYE\_022\_001')

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