Eye Morphology IMPC_EYE_003

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
- 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,

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,

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,

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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,

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,

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,

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,

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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,

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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,

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,

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,

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 both eyes abnormal, no data no data right eye, left eye abr	for both eyes, no data left ey	eye abnormal, right eye abnormal, re, right eye abnormal,
Destruction		4
simpleParameter	noid vascular sys	tem IMPC_EYE_027_001 v1.0
Req. Analysis: false	Req. Upload: false	Is Annotated: true
Description: persistence_of_	_hyaloid_vascular_system	
Options: absent, no data left present both eyes, no data fo no data right eye, present left	r both eyes, no data left eye,	ent left eye, present right eye, present right eye,
Slit Lamp observa	tion IMPC_EYE_028_00	1 v1.1
Req. Analysis: false	Req. Upload: false	Is Annotated: false
Description: slit_lamp_obset	rvation	

Ophthalmoscope Observation IMPC_EYE_029_001 | v1.1

Req. Analysis: false Req. Upload: false Is Annotated: false **Description:** ophthalmoscope_observation 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 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,

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, Ophthalmoscope Equipment ID IMPC_EYE_033_001 | v1.2 procedureMetadata Reg. Analysis: false Reg. Upload: false Is Annotated: false **Description:** ophthalmoscope equipment id 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,

Ophthalmoscope Equipment Model IMPC_EYE_035_001 | v1.2

procedureMetadata

Heine / Volk, Keeler LTD,

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, Micron 5,

Experimenter ID IMPC_EYE_036_001 | v1.1
procedureMetadata

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

Description: experimenter_id

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

Optical Coherence Tomography Equipment Manufacturer

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

Description: optical_coherence_tomography_equipment_manufacturer

Options: Bioptigen, Heidelberg Engineering,

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, Envisu R2210,

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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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,

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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 Reg. Analysis: true Reg. Upload: true Is Annotated: false **Description:** general_anesthetic **Options:** Ketamine+Xylazine, No anesthesia, Isoflurane, Euthatal, Avertin, Ketamine+Medetomidine, Zoletil, Date Slit Lamp equipment last calibrated IMPC_EYE_046_001 | v1 .1 procedureMetadata **Reg. Analysis:** false **Reg. Upload:** false **Is Annotated:** false

Date Ophthalmoscope equipment last calibrated IMPC_EYE_0 47_001 | v1.1

procedureMetadata

Req. Analysis: false	Req. Upload: false	Is Annotated: false
Date Scheimpflug v1.1 procedureMetadata	equipment last cali	brated IMPC_EYE_048_001
Req. Analysis: false	Req. Upload: false	Is Annotated: false
Date OCT equipment last calibrated IMPC_EYE_049_001 v1.1 procedureMetadata		
Req. Analysis: false	Req. Upload: false	Is Annotated: false
Images Ophthalmoscopy IMPC_EYE_050_001 v1.1 seriesMediaParameter		
Req. Analysis: false	Req. Upload: false	Is Annotated: false

Images Slit Lamp IMPC_EYE_051_001 | v1.1

seriesMediaParameter

	Req. Upload: false	
Sheimpflug Lens d simpleParameter	escription IMPC_EYE_	052_001 v1.1
Req. Analysis: false	Req. Upload: false	Is Annotated: false
Scheimpflug descr simpleParameter	ription IMPC_EYE_053_0	01 v1.0
Req. Analysis: false	Req. Upload: false	Is Annotated: false
Min left eye lens de simpleParameter	ensity IMPC_EYE_054_00	01 v1.2
Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: %		

Max left eye lens density IMPC_EYE_055_001 | v1.1

simpleParameter

Req. Analysis: false Req. Upload: false Is Annotated: true Unit Measured: % Mean left eye lens density IMPC_EYE_056_001 | v1.1 simpleParameter Req. Analysis: false Req. Upload: false Is Annotated: true Unit Measured: % Min right eye lens density IMPC_EYE_057_001 | v1.1 simpleParameter Req. Analysis: false Req. Upload: false Is Annotated: true **Unit Measured:** %

Max right eye lens density IMPC_EYE_058_001 | v1.1

simpleParameter

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

Unit Measured: %		
Mean right eye lens	s density IMPC_EYE_05	9_001 v1.1
Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: %		
Right corneal thick simpleParameter	(ness impc_eye_060_00	1 v1.2
Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: um		
Right anterior chamber depth IMPC_EYE_061_001 v1.2 simpleParameter		
Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: um		

Right total retinal thickness IMPC_EYE_062_001 | v1.2

simpleParameter

Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: um		
Right inner nucleal simpleParameter	r layer IMPC_EYE_063_0	01 v1.2
Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: um		
Right outer nuclea simpleParameter	r layer IMPC_EYE_064_0	01 v1.2
Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: um		

Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: um		
Left corneal thickn simpleParameter	ess IMPC_EYE_066_001	v1.2
Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: um		
Left anterior cham	ber depth IMPC_EYE_0	67_001 v1.2
Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: um		
Left total retinal thickness IMPC_EYE_068_001 v1.2 simpleParameter		
Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: um		

Left inner nuclear I simpleParameter	ayer IMPC_EYE_069_001	v1.2
Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: um		
Left outer nuclear I simpleParameter	ayer IMPC_EYE_070_001	v1.2
Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: um		
Left posterior chan simpleParameter	nber depth IMPC_EYE_	_071_001 v1.2
Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: um		

B-scan of right retina IMPC_EYE_072_001 | v1.1

seriesMediaParameter

Req. Analysis: false	Req. Upload: false	Is Annotated: false
B-scan of left retin seriesMediaParameter	a IMPC_EYE_073_001 v1.	1
Req. Analysis: false	Req. Upload: false	Is Annotated: false
VIP of right fundus seriesMediaParameter	S IMPC_EYE_074_001 v1.1	
Req. Analysis: false	Req. Upload: false	Is Annotated: false
VIP of left fundus I seriesMediaParameter	MPC_EYE_075_001 v1.1	
Req. Analysis: false	Req. Upload: false	Is Annotated: false

B-scan of right cornea and lens IMPC_EYE_076_001 | v1.1

Req. Analysis: false		Is Annotated: false
B-scan of left cornerseriesMediaParameter	ea and lens IMPC_EYE	_077_001 v1.1
Req. Analysis: false	Req. Upload: false	Is Annotated: false
VIP of right eye IMPO seriesMediaParameter	C_EYE_078_001 v1.1	
Req. Analysis: false	Req. Upload: false	Is Annotated: false
VIP of left eye IMPC_ seriesMediaParameter	EYE_079_001 v1.1	
Req. Analysis: false	Req. Upload: false	Is Annotated: false

Corneal Sclerization IMPC_EYE_080_001 | v1.1

simpleParameter

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

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

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,

Iris transilumination 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,

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,

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,

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

Req. Analysis: false	Req. Upload: false	Is Annotated: false
Right eye diameter simpleParameter	IMPC_EYE_090_001 v1.0	
Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: mm		
Left eye diameter IN simpleParameter	MPC_EYE_091_001 v1.0	
Req. Analysis: false	Req. Upload: false	Is Annotated: true
Unit Measured: mm		
Retina (combined) simpleParameter	IMPC_EYE_092_002 v2.0	
Req. Analysis: false	Req. Upload: false	Is Annotated: true
•	eye, no data right eye, left eye or or both eyes, no data left eye, r ormal,	

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