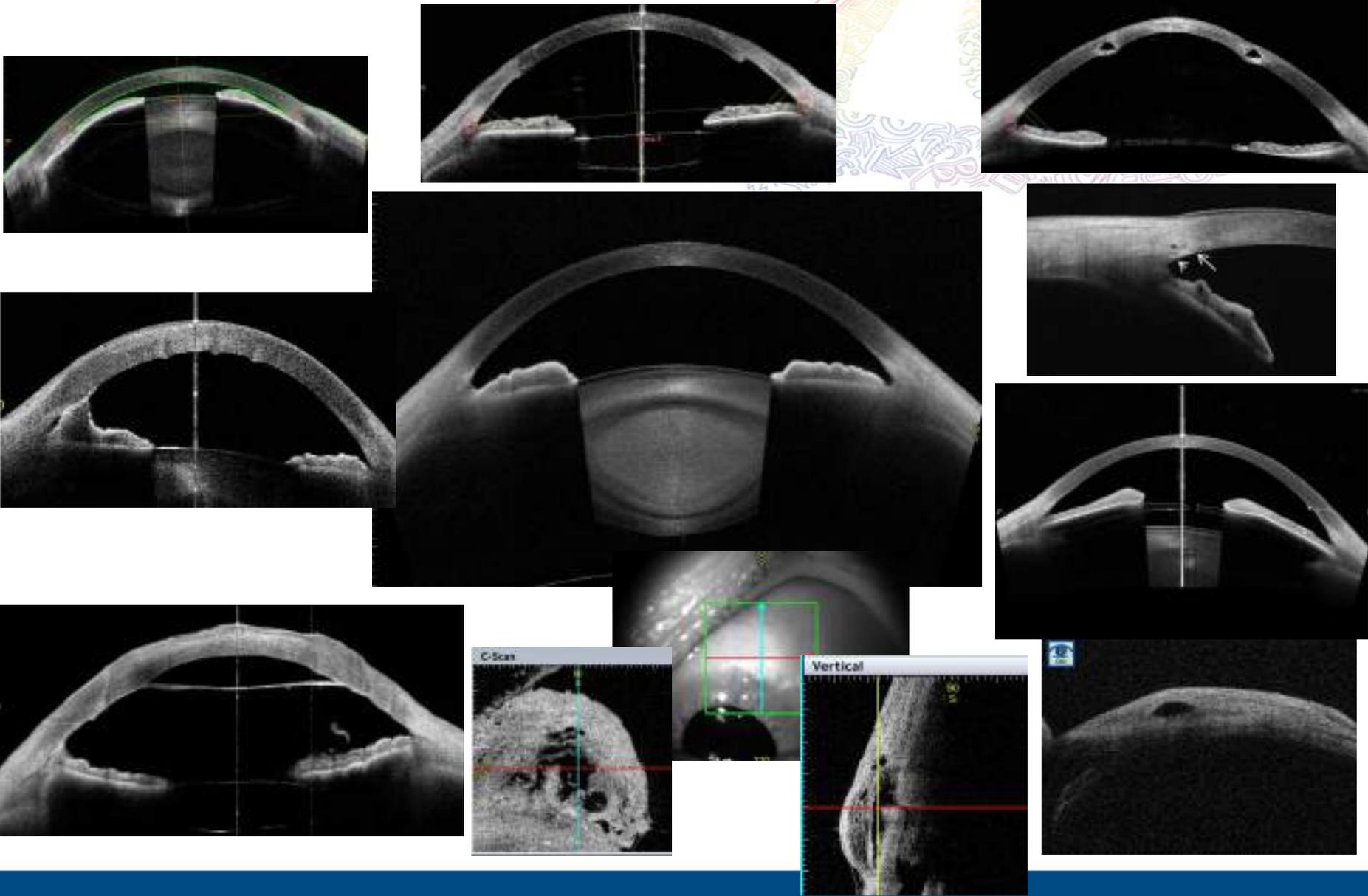


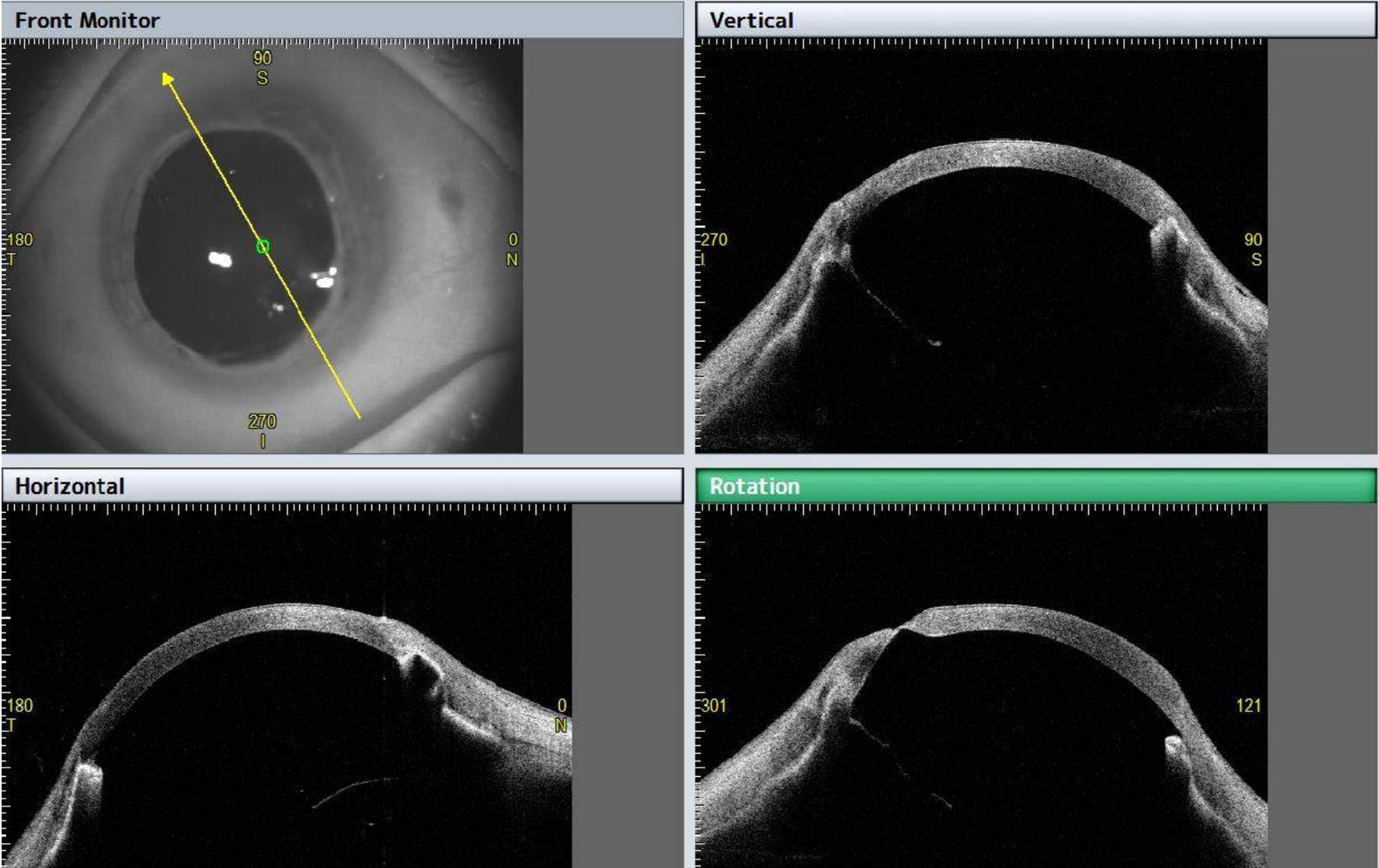


Clinical daily use  
Cornea /Anterior Segment OCT  
CASIA2

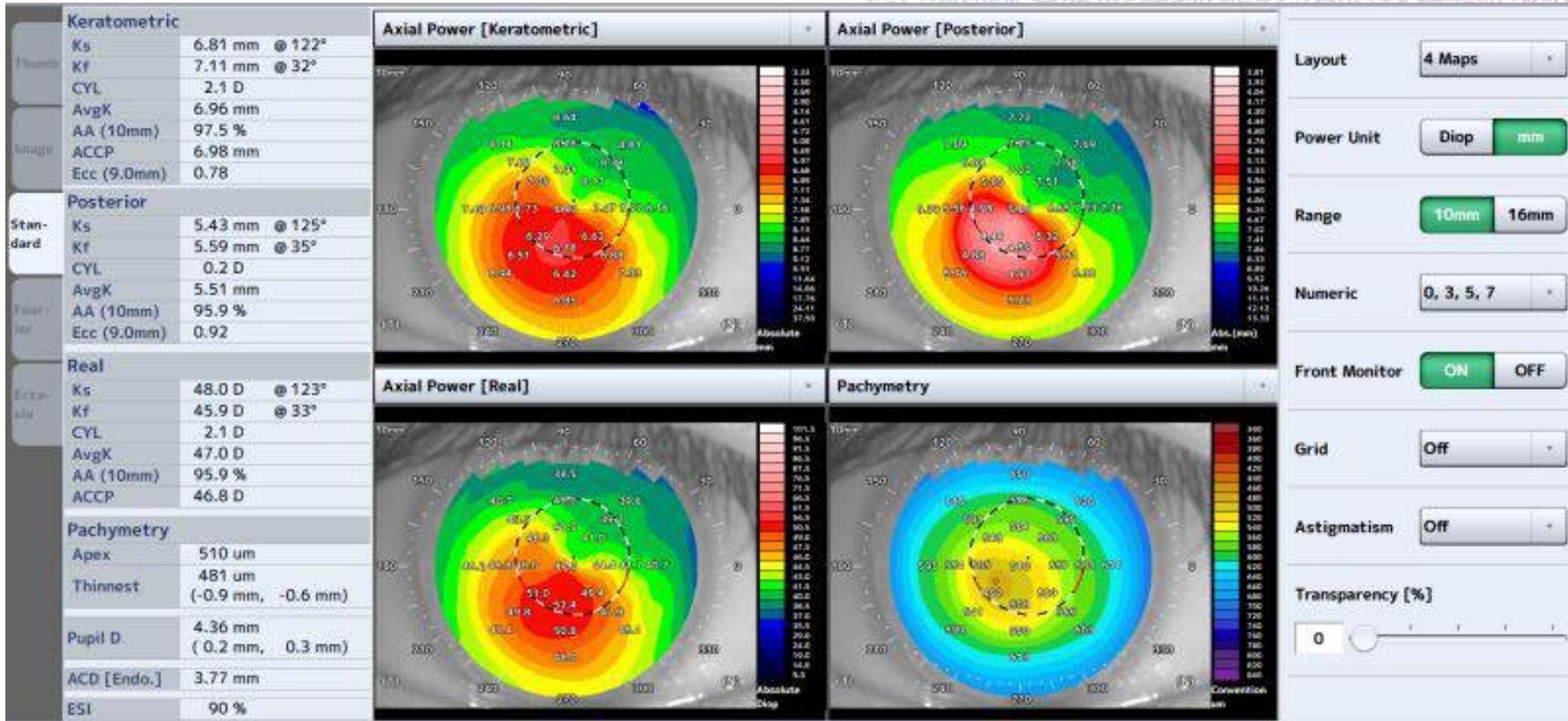
# Visualize Various Eye Conditions



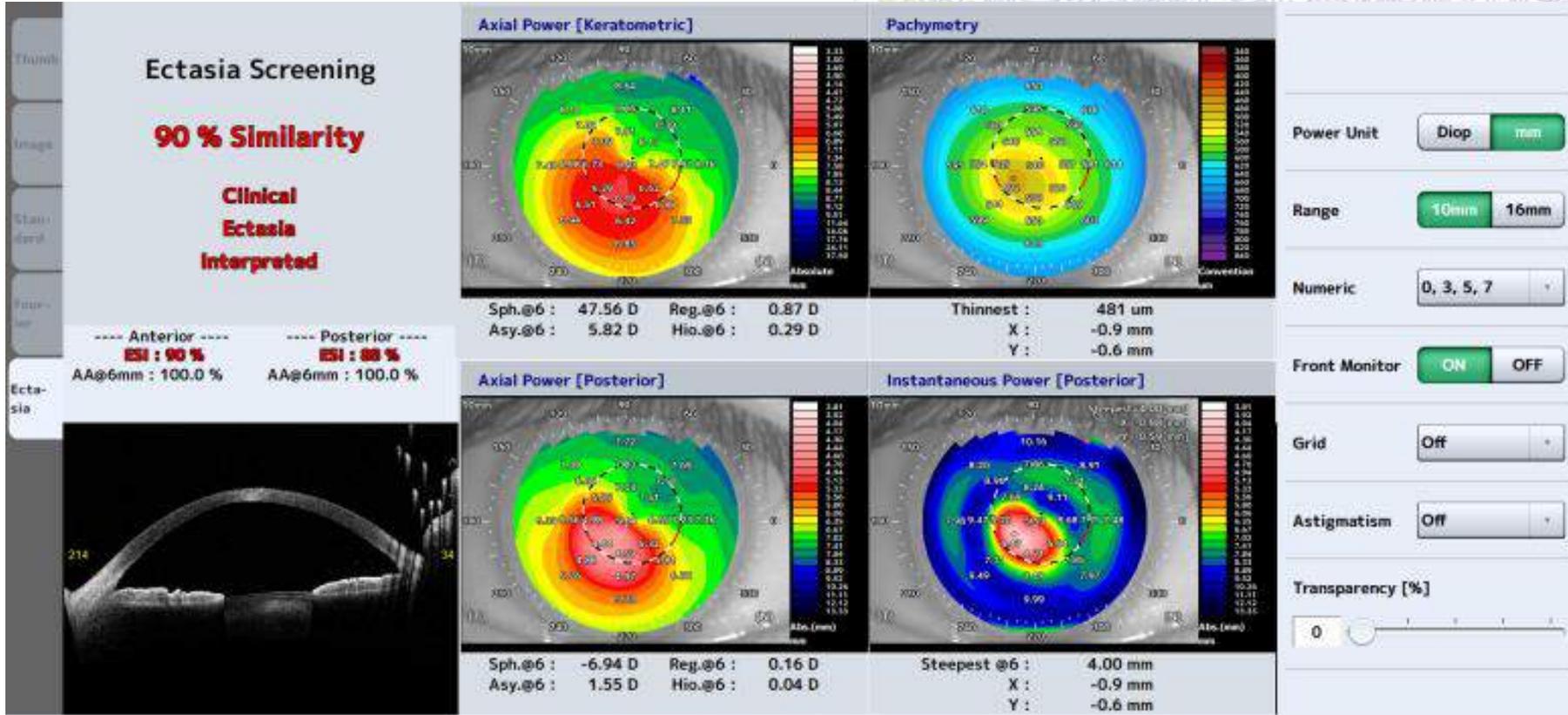
# Visualize Various Eye Conditions



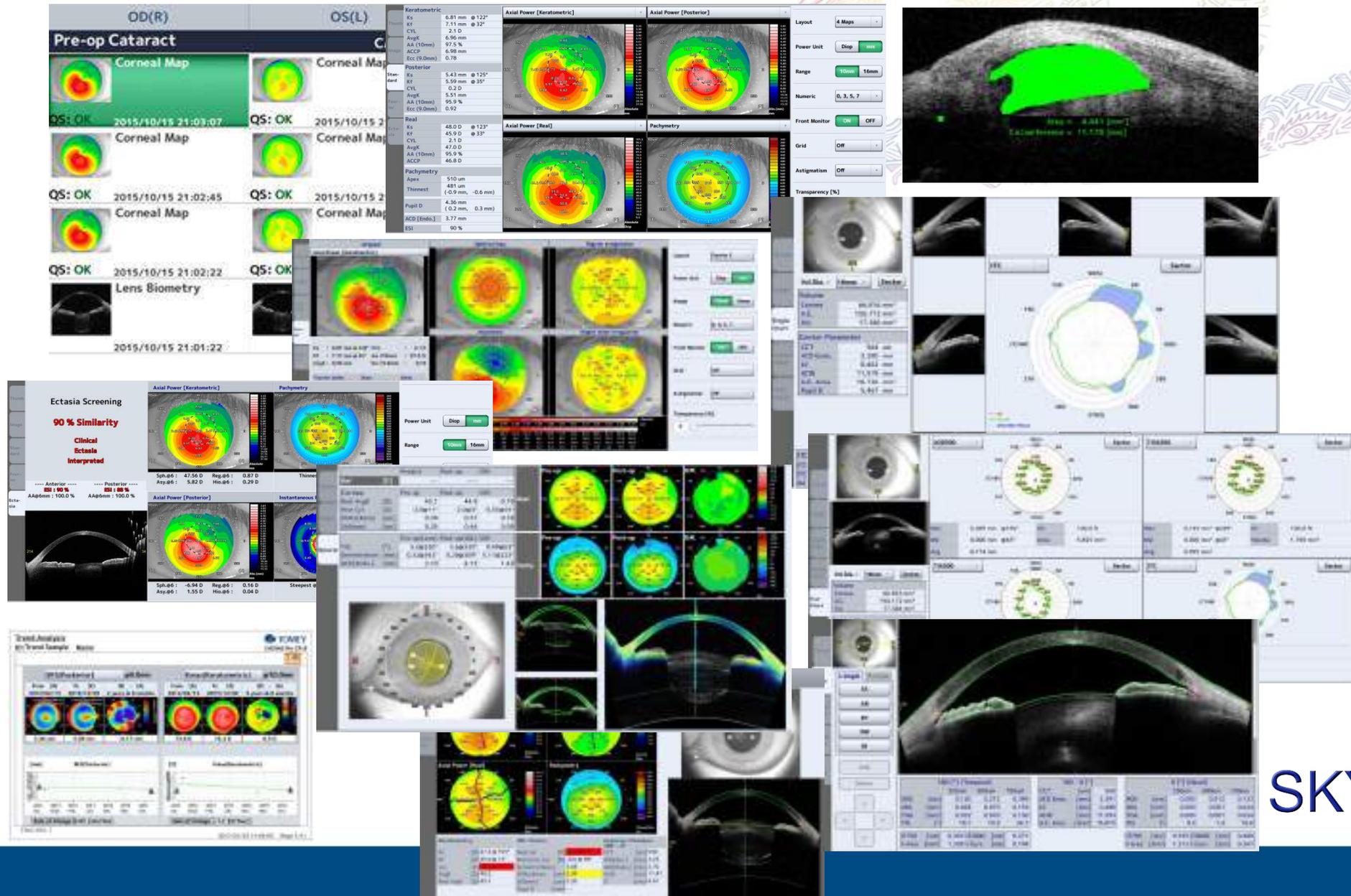
# Advanced topography



# Advanced topography



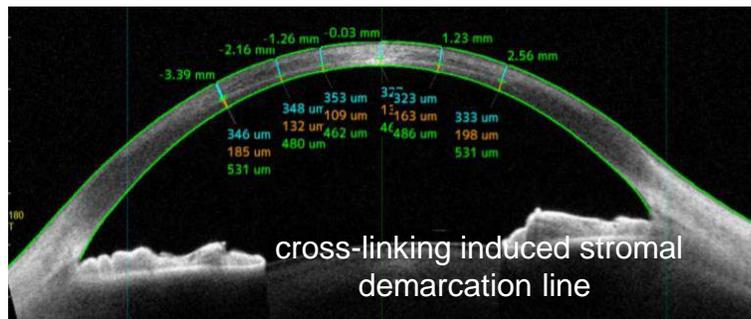
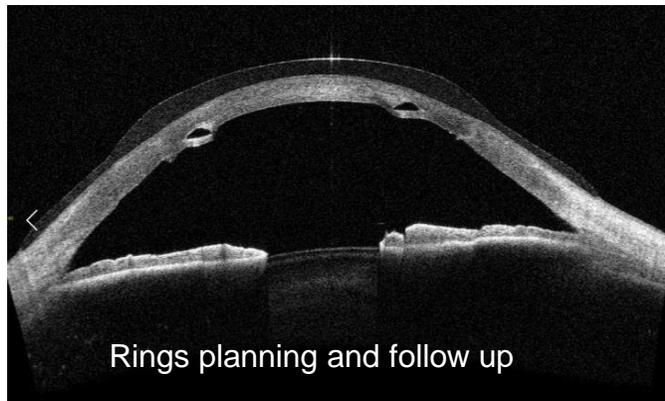
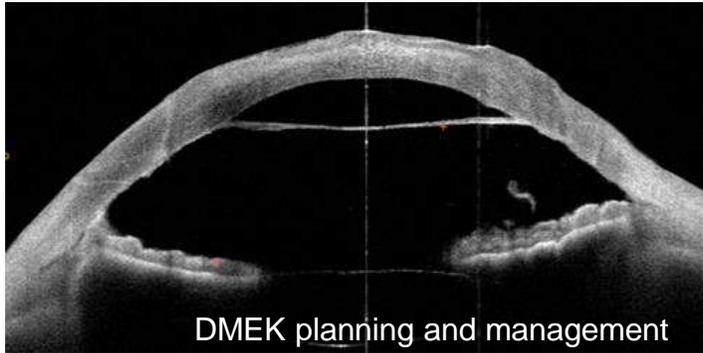
# Automated Numerical Analysis Function



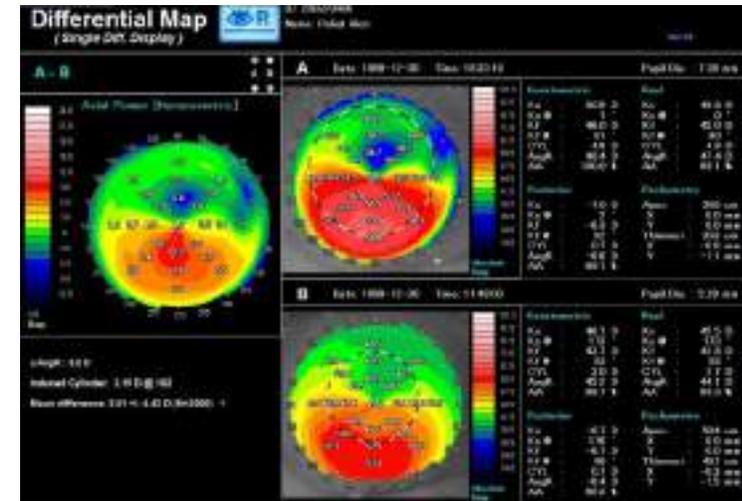
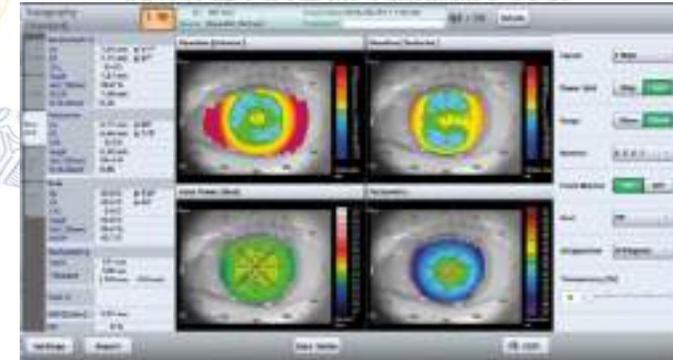
SKYMED

TOMEY  
TECHNOLOGY AND VISION

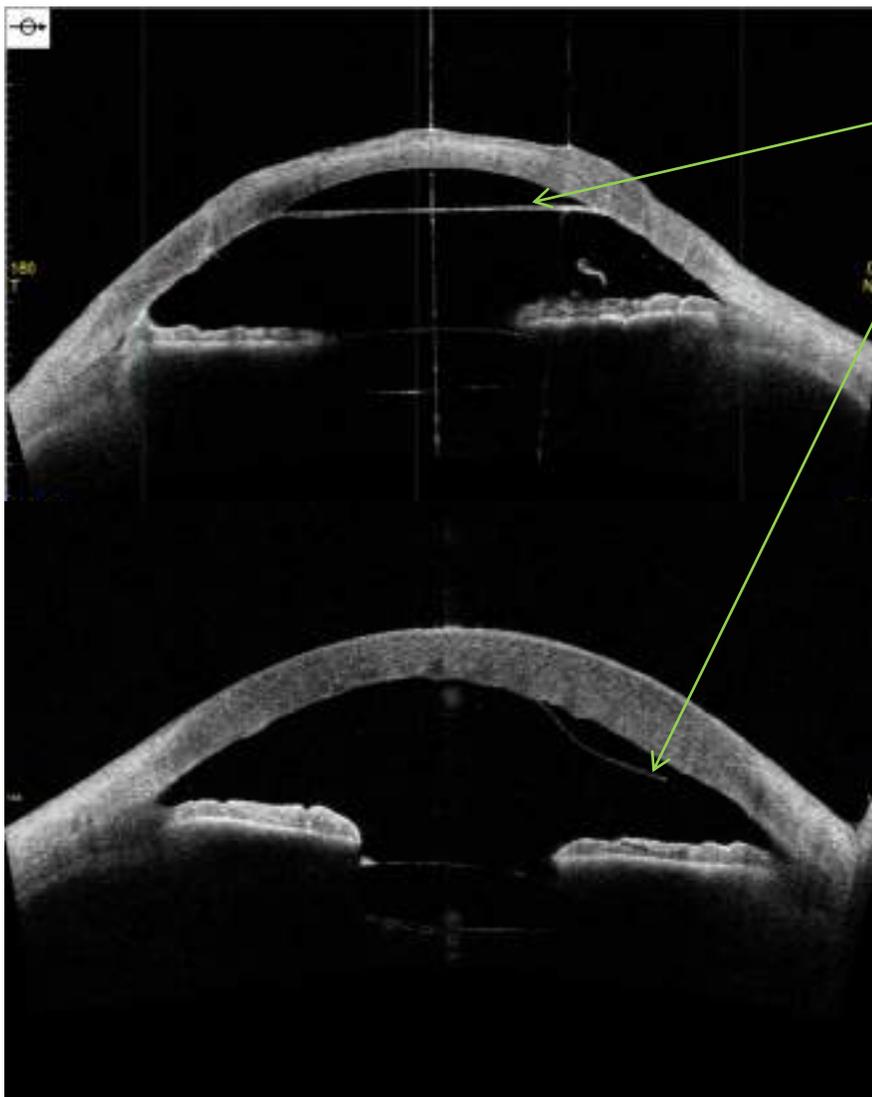
# Cornea Related Information Pre And Post OP



Display  
Correction  
Measurement  
Analysis

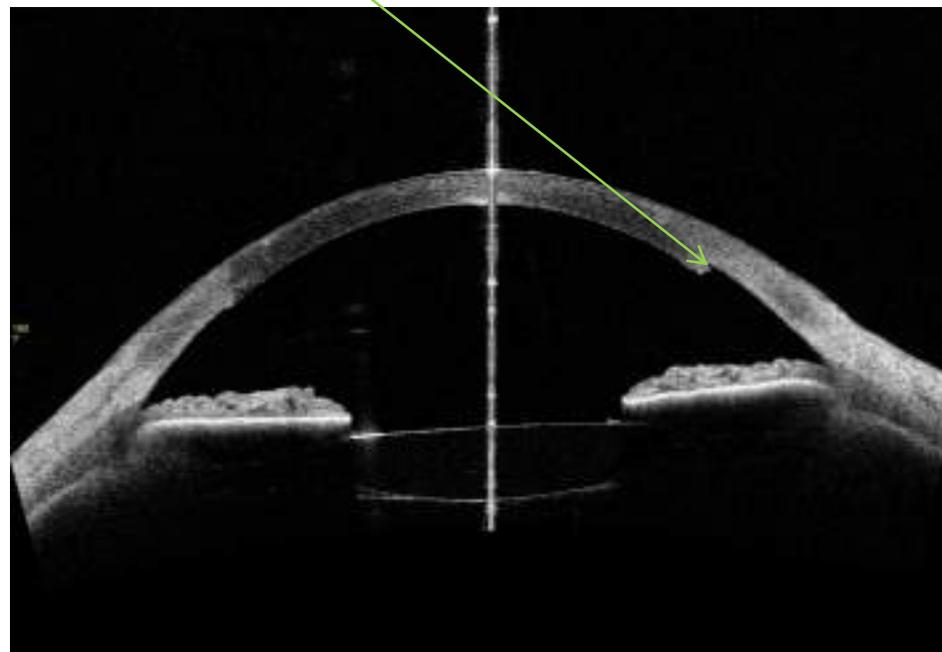


# Cornea Related Information Pre And Post OP

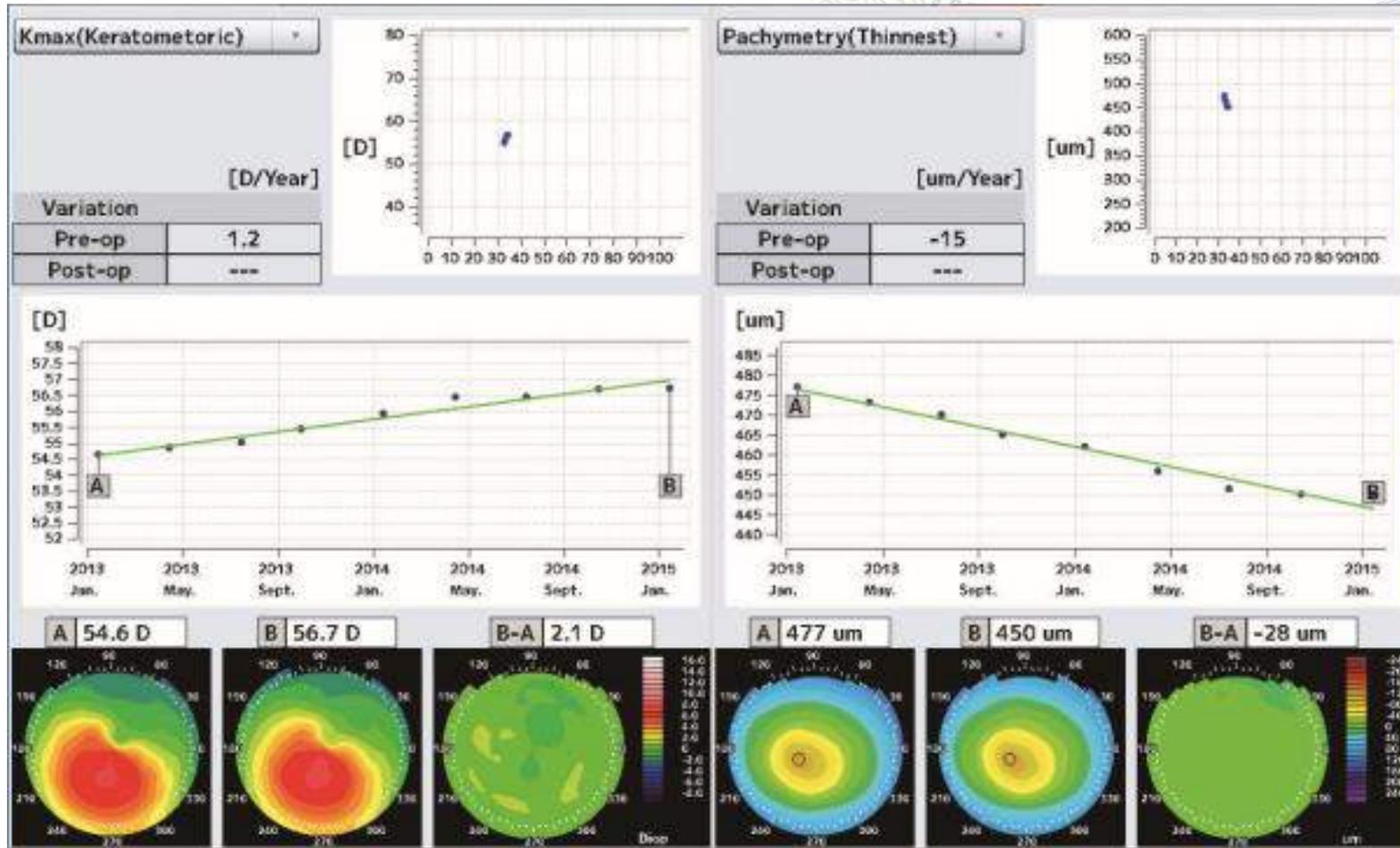


Detached DMEK graft requiring re-bubbling...

DSAEK graft perfectly attached



# Cornea Related follow up: Trend Analysis



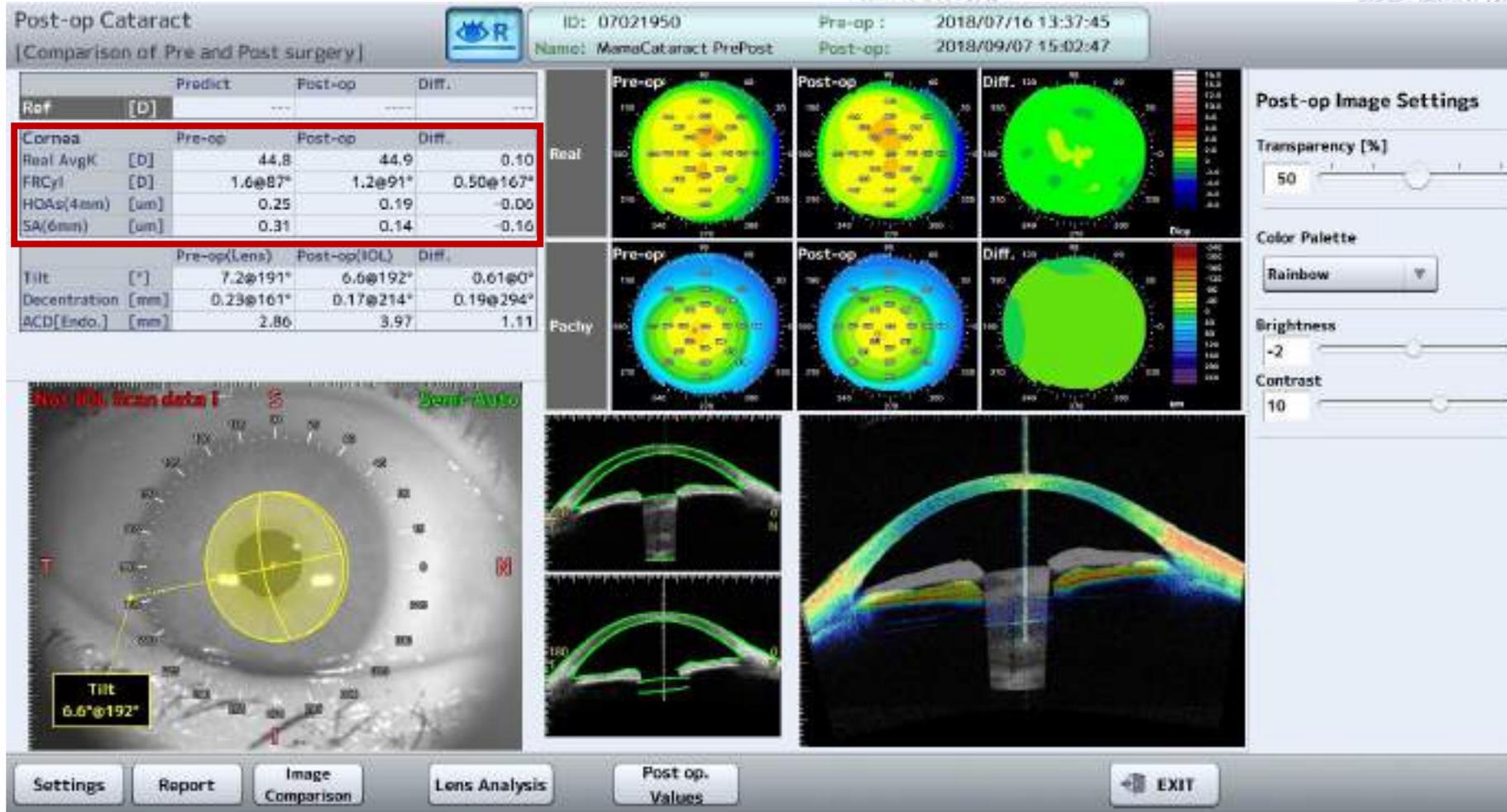
# Pre-Op Cataract layout screen

- Pre-Op → complete software to calculate IOL's with adding the AL into the screen (or use our OA-2000 automatically)

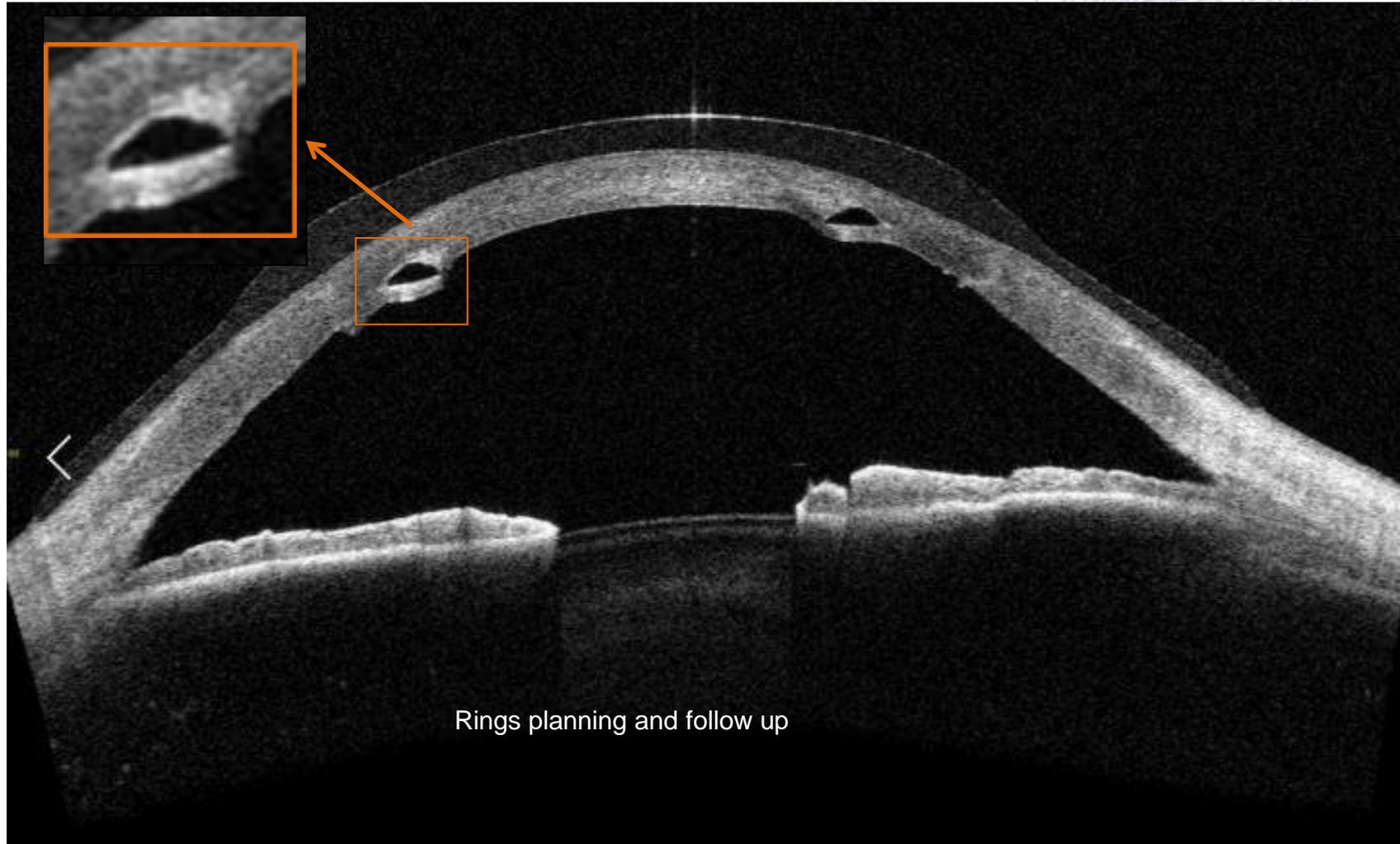


# Post-Op Cataract layout screen

- PostOp → with pre-op information CASIA2 creates an overlay and shows differential map



# Cornea-related Information Pre And Post OP



# Cornea Rings Pre And Post OP

## **Ferrara Ring:**

Optical zone: 5 mm / 6 mm  
triangular shape

## **KeraRing:**

Optical zone: 5 mm / 6 mm triangular  
shape

Implanted more centrally →  
significant flattening effect, more  
Halos and Glare

## **INTACS:**

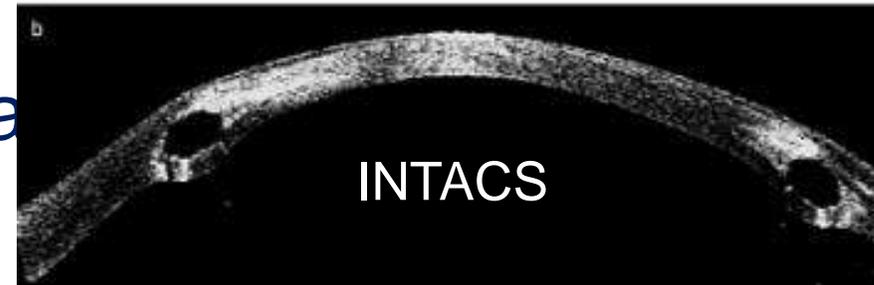
optical zone 7 mm  
hexagonal form

## **INTACS SK (UKS):**

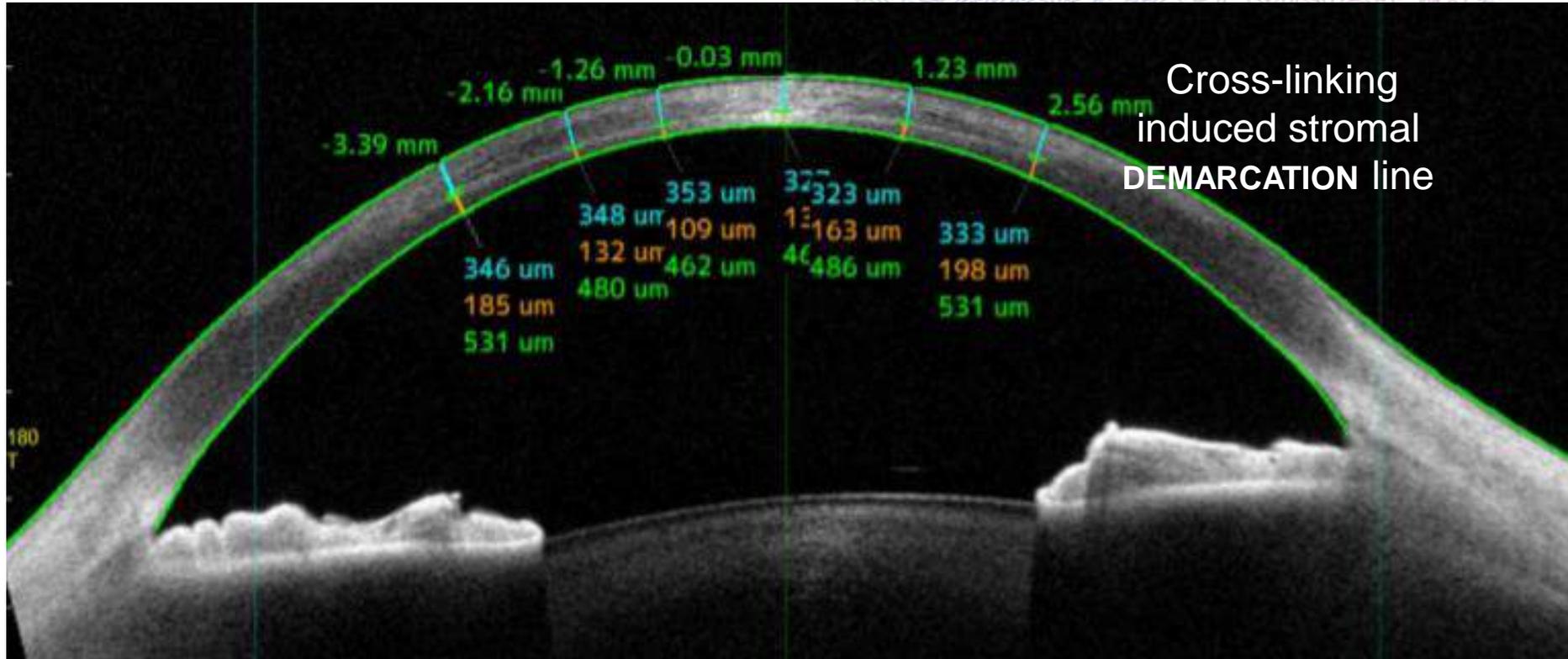
Optical zone 6 mm, elliptical form,  
significant flattening

Segment thickness: 0.21 mm, 0.3  
mm, 0.35 mm, 0.4 mm, 0.45 mm,  
0.5 mm

Beneficial in progressed KC with  $K \leq 70$   
dpt



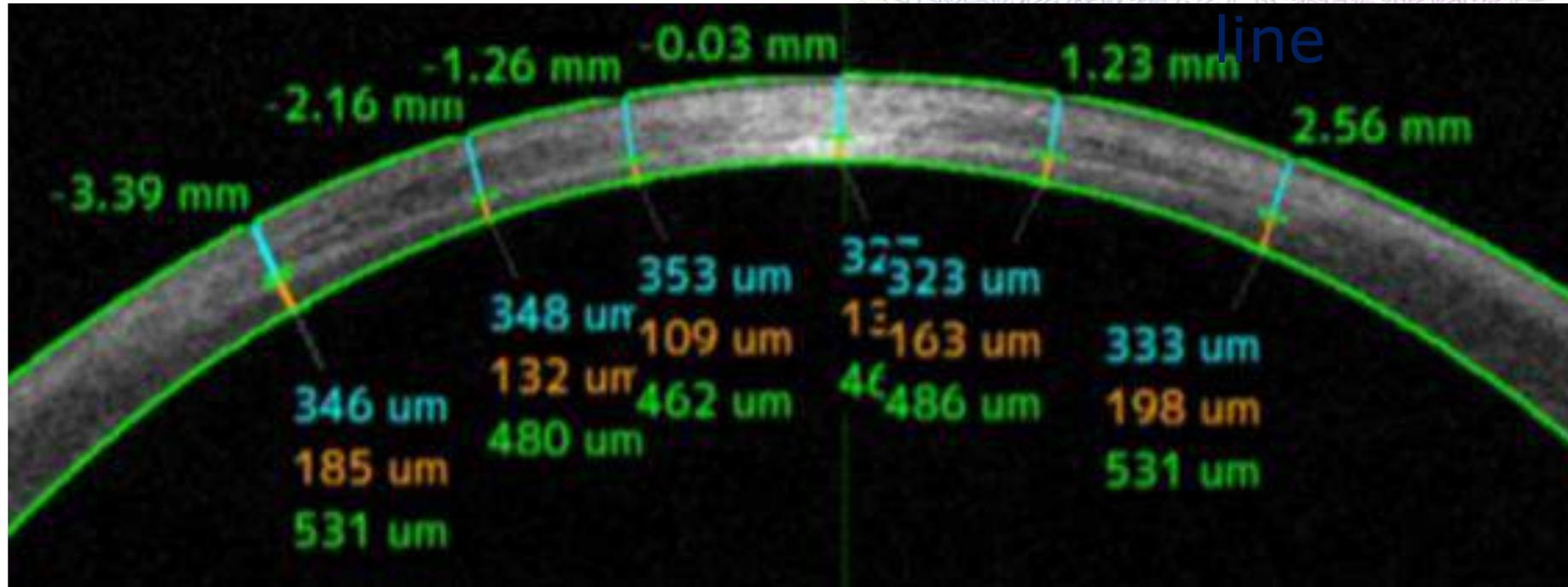
# Cornea-related Information Pre And Post OP



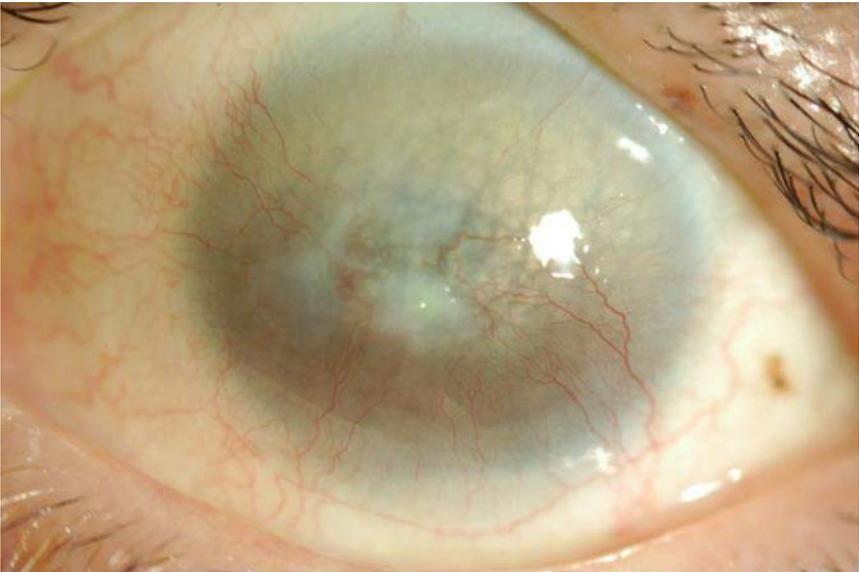
# Cornea-related Information Pre And Post OP

## Stromal DEMARCATIION

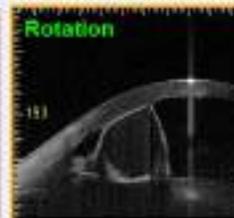
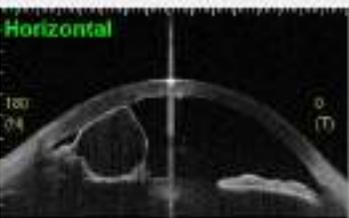
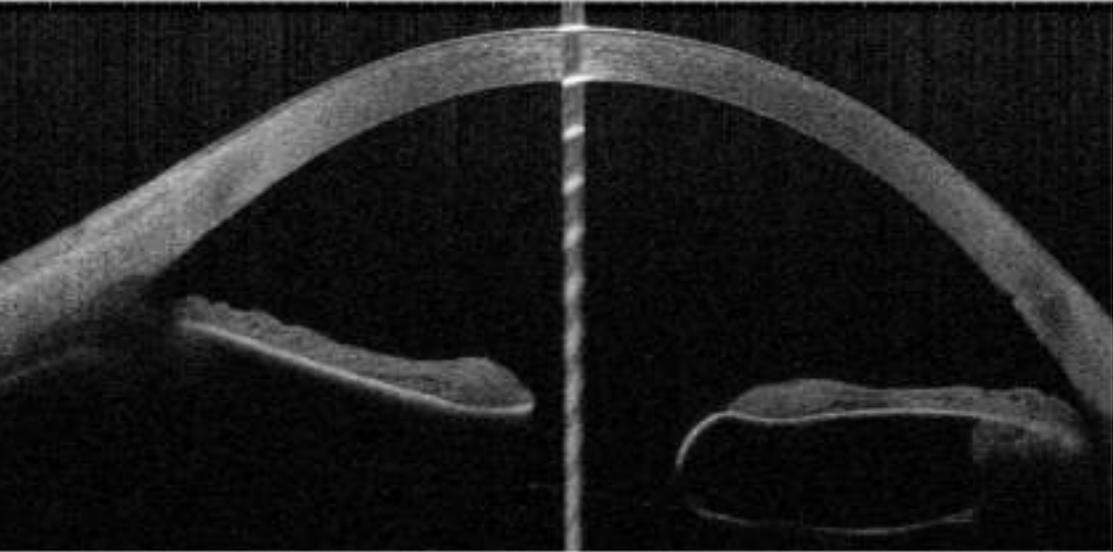
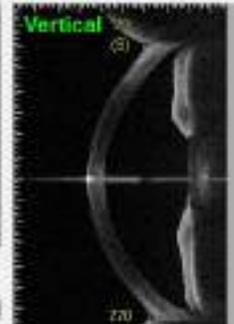
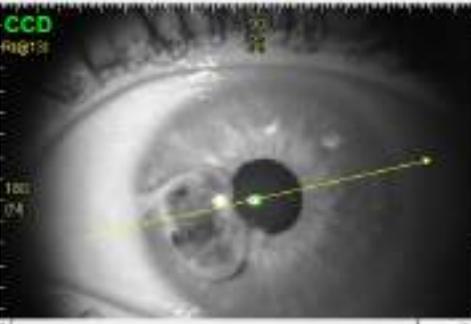
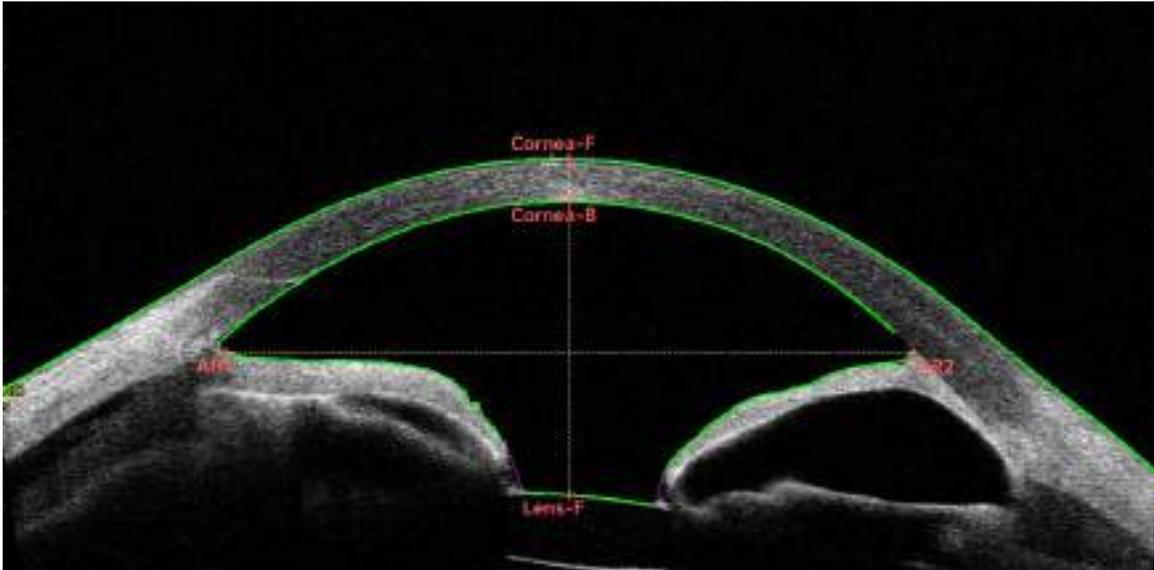
line



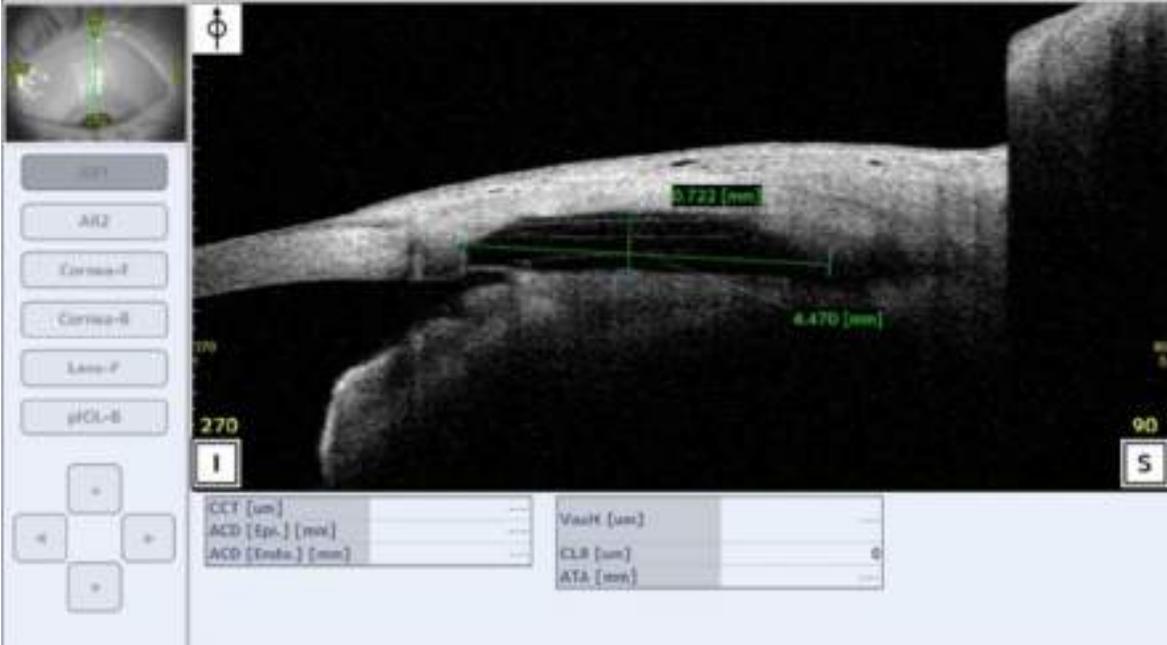
# Measuring also in opaque tissues



# Ocular Oncology: Iris tumor, Iris bomb



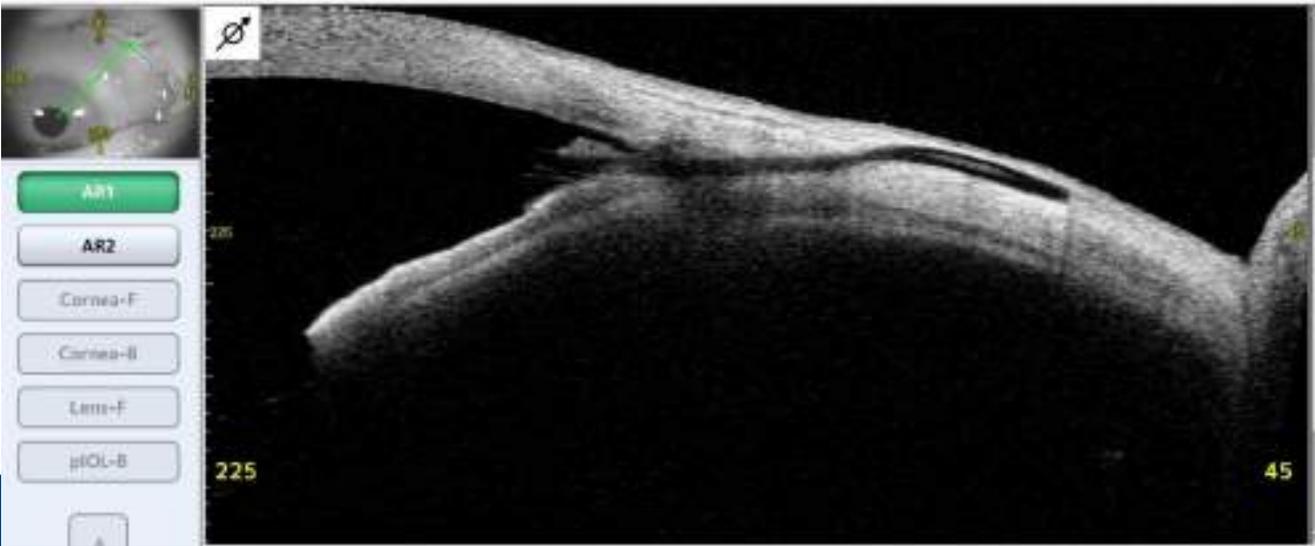
# Glaucoma use for implants



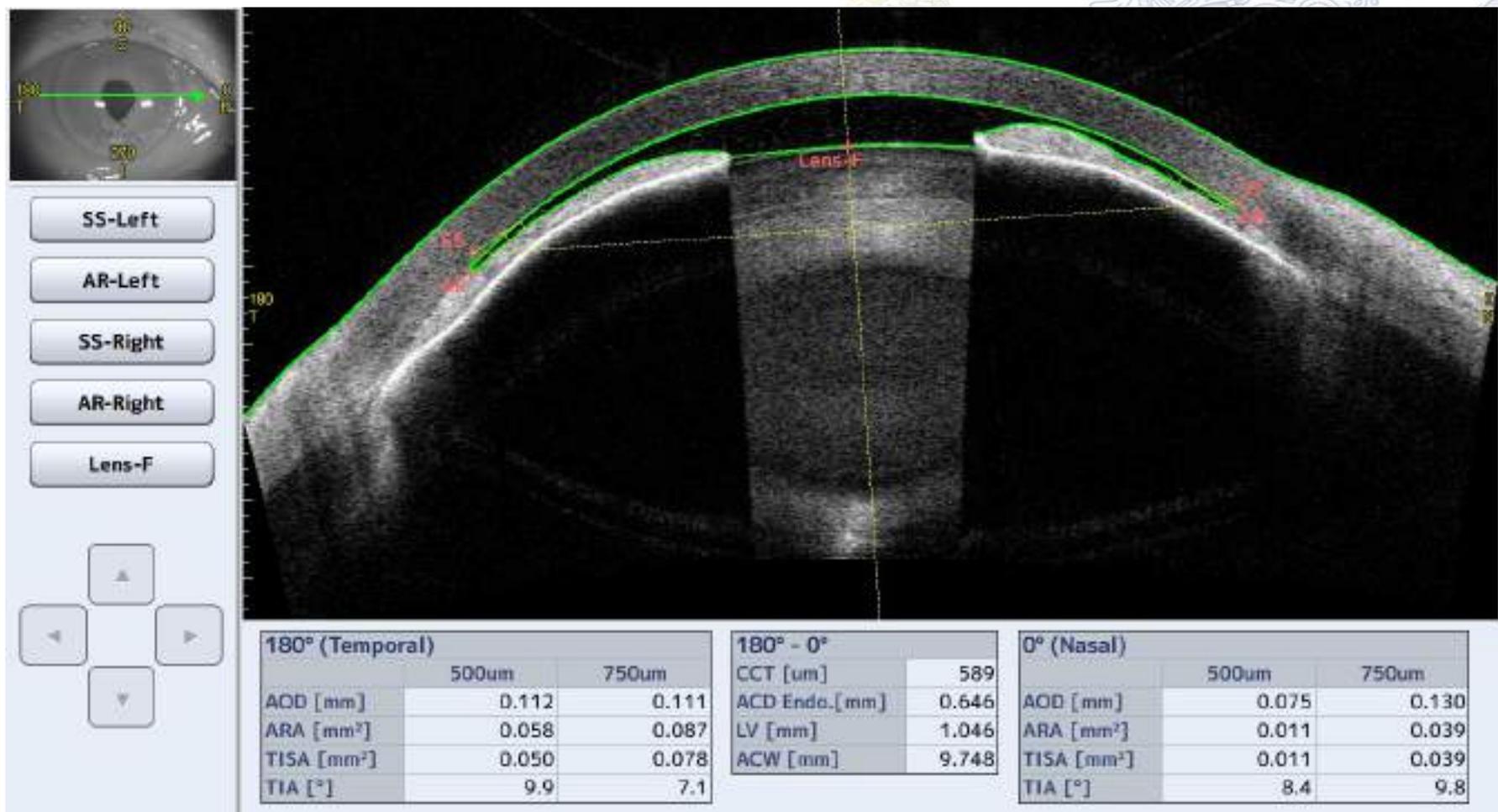
Images in courtesy of Dr. Rodríguez Uña (IOFV, Oviedo)

Esnooper Clip &

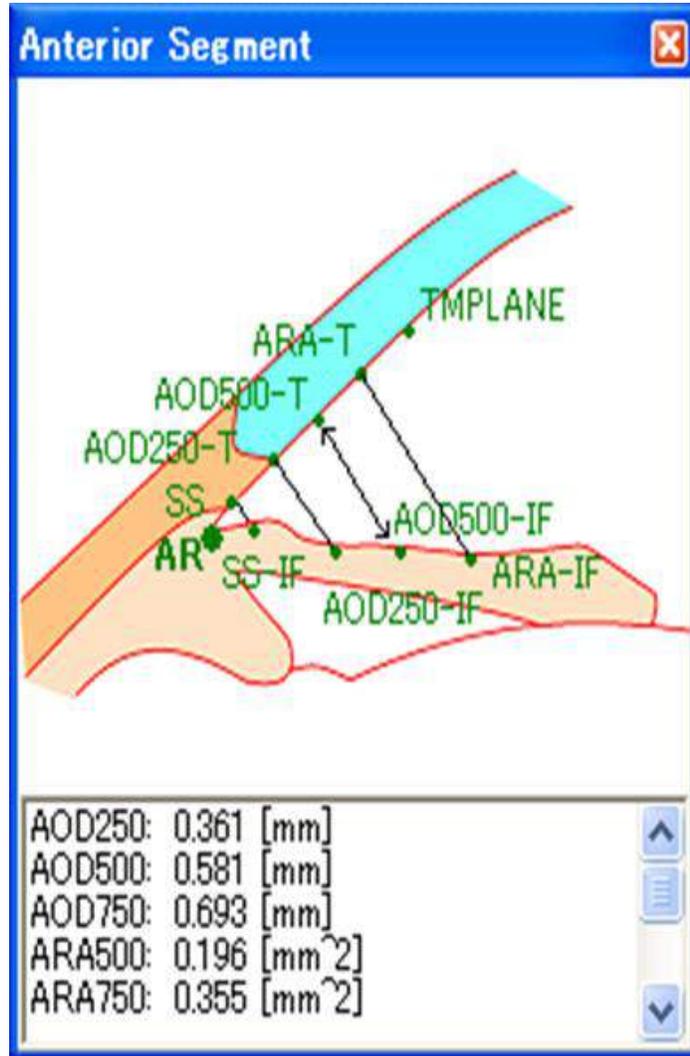
Xen Implant 1 week post op



# Automated 2D Analysis of parameters



# Automated ISO conform angle analysis



## ◆AOD : Angle Opening Distance

- AOD250: distance between AOD250-T ~ AOD250-IF
- AOD500: distance between AOD500-T ~ AOD500-IF
- AOD750: distance between ARA-T ~ ARA-IF

## ◆ARA : Angle Recess Area

- ARA250: dimension of angle recess side of AOD250-T ~ AOD250-IF
- ARA500: dimension of angle recess side of AOD500-T ~ AOD500-IF
- ARA750: dimension of angle recess side of ARA-T ~ ARA-IF

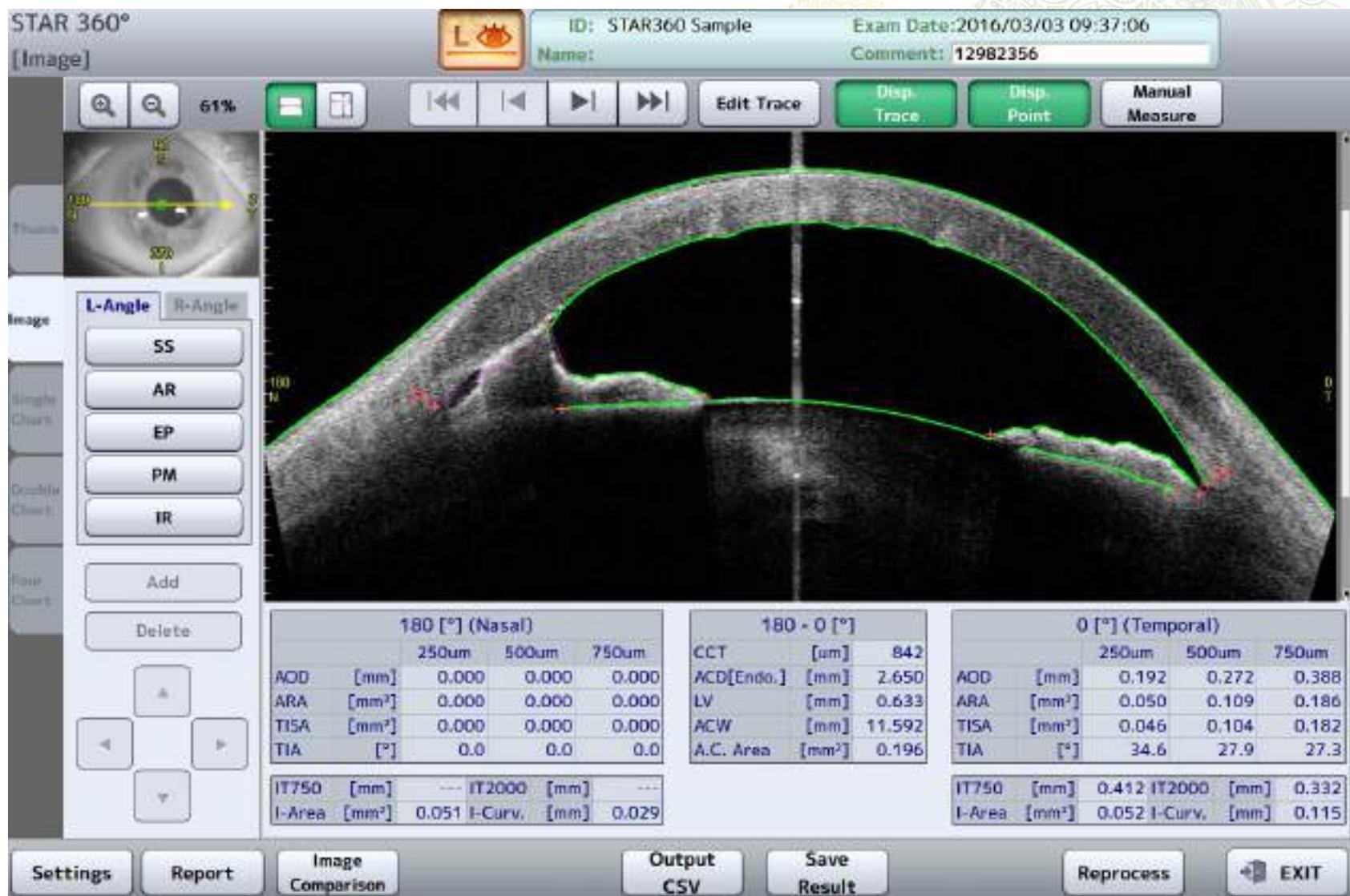
## ◆TISA : Trabecular Iris Space Area

- TISA250: dimension of angle recess side of AOD250-T ~ AOD250-IF
- TISA500: dimension of angle recess side of ARA500 - SS-T ~ SS-IF
- TISA750: dimension of angle recess side of ARA750 - SS-T ~ SS-IF

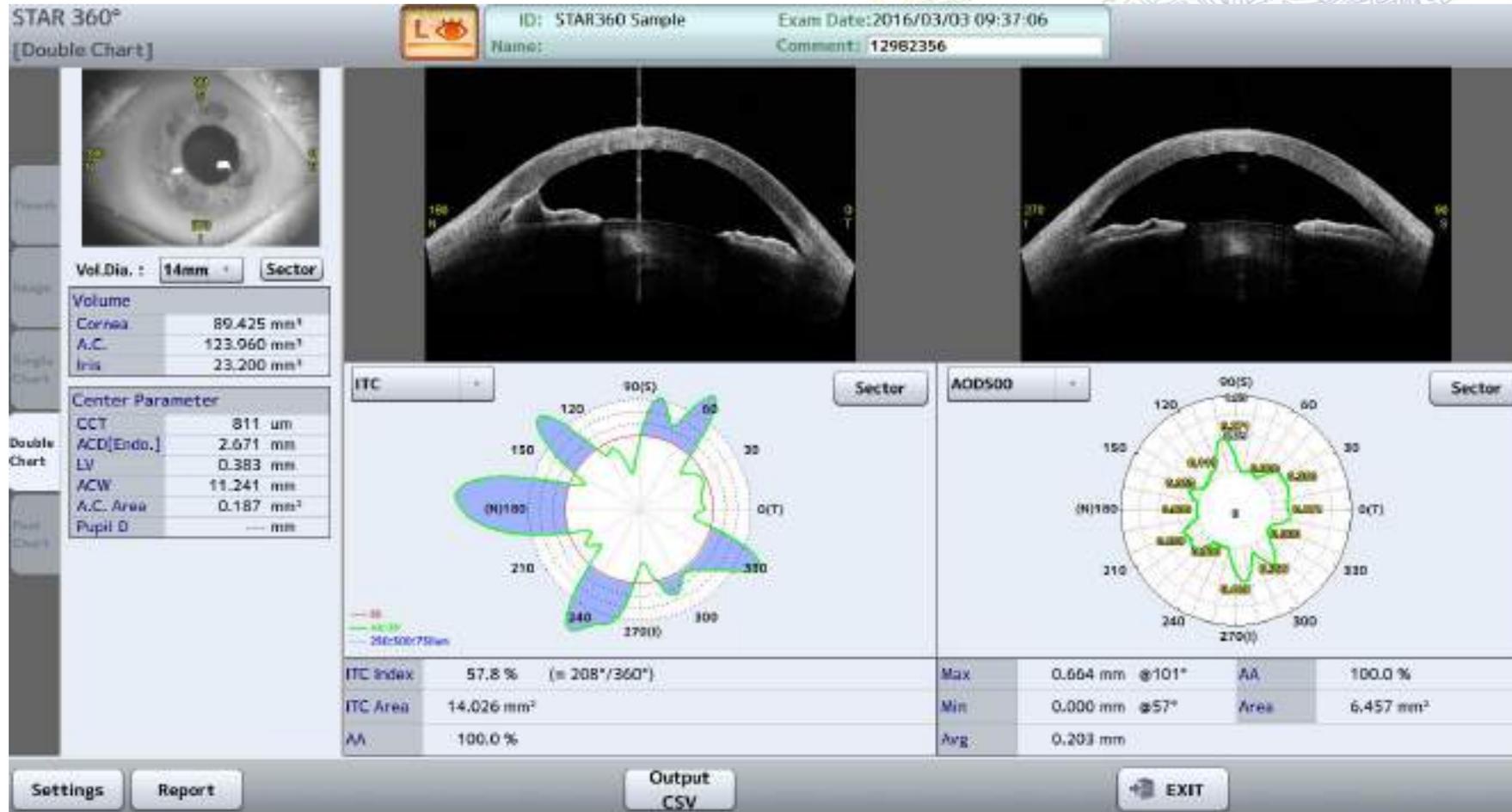
## ◆TIA:Trabecular Iris Angle

- TIA250: angle of AR between AR/AOD250-T/AOD250-IF
- TIA500: angle of AR between AR/AOD500-T/AOD500-IF
- TIA750: angle of AR between AR/ARA-T/ARA-IF

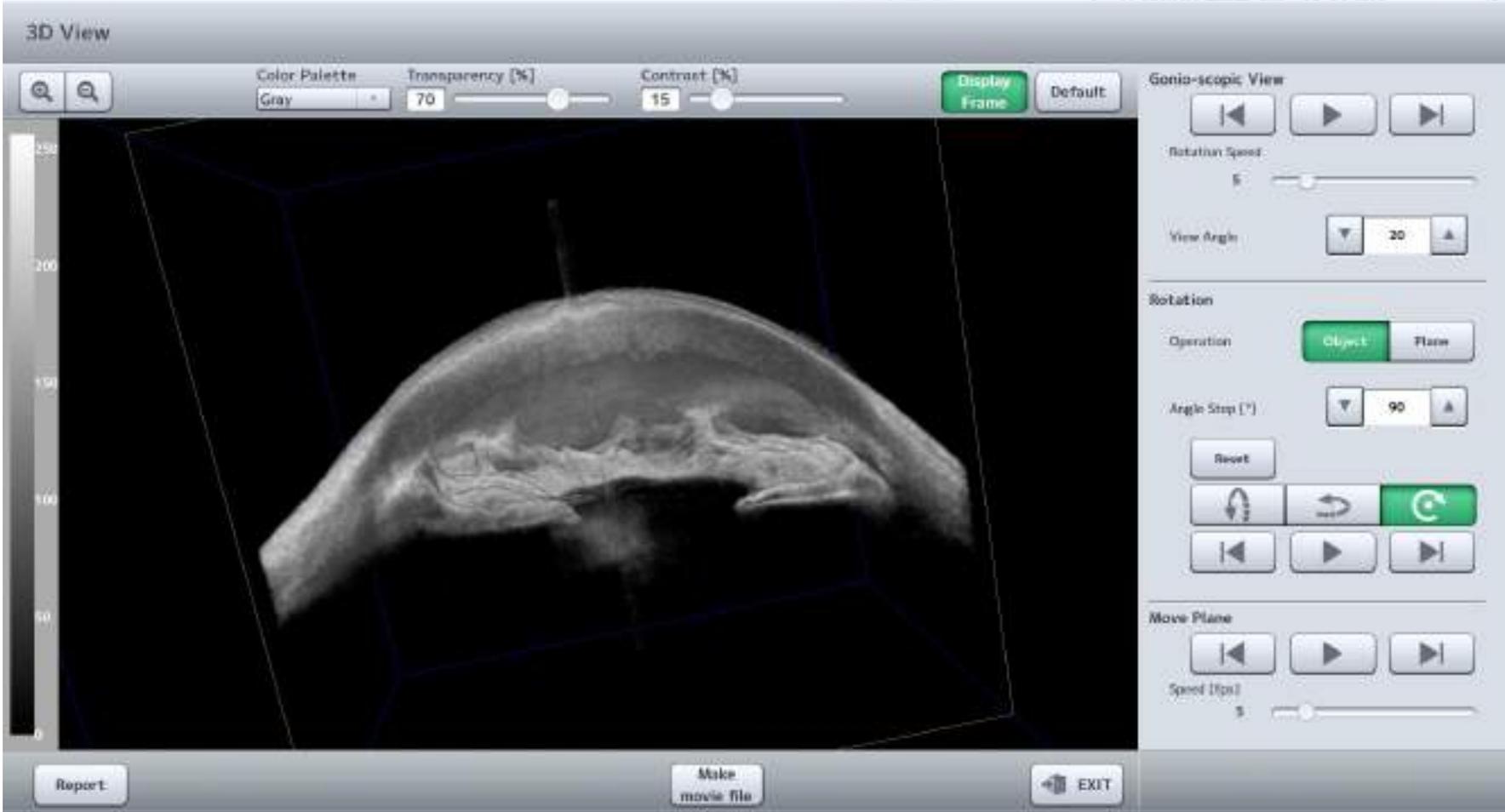
# Automated Glaucoma STAR360°



# Automated Iso conform Volume & graphic display of all parameters



# 3D Imaging



# New approaches with CASIA2

## CRYSTALLINE LENS ANALYSIS BY OCT CASIA 2 (Tomey®)

Néda ABRÁHAM - Karline HAWA  
M.P.H.C.H. (F. HOFFMANN) - H. SINGH  
OPTICUM VISION (INDIA)



**Materials and Methods**  
 11 eyes (7 patients) scheduled cataract eyes.  
 - Age: 50 years - 80 years (Mean 63.3 years)  
 - Anterior: -1.00D to -2.00D  
 - Posterior: -4.00D to -6.00D  
 - Exclusion Criteria: Pseudoexfoliation, Pseudophakia, Corneal dystrophy.

**Results**  
 Mean Age: 68 ± 11 years

ACD	2.38 ± 0.27 mm
EL	4.60 ± 0.70 mm
ELP	4.29 ± 1.23 mm
ELP2	5.59 ± 0.88 mm
EED	3.87 ± 0.38 mm

→ IOL Calculated by group based on ACD and EED

**Anterior and Posterior Lens Curvature Measurement:** (E. and H. Post)  
**Exterior Positioning:**  
 - Anteriorly: 0.5mm (0.5mm) from 0.5mm and 0.5mm.  
**EED (Central Elevation) in Exterior Position:**  
 - Lens Positioning

**Lens Thickness (Mean (± SD))**

Thin (LT = 0.50)	Medium (LM = 1.00 ± 0.50)	Thick (LT = 0.50)
1.00 ± 0.10	1.50 ± 0.10	2.00 ± 0.10

**Central Lens Positioning (Mean EED (mm))**  
 The Greater the Lens Thickness, the Smaller the ACD

**Lens Thickness (Mean (± SD))**

Thin (LT = 0.50)	Medium (LM = 1.00 ± 0.50)	Thick (LT = 0.50)
1.00 ± 0.10	1.50 ± 0.10	2.00 ± 0.10

**Central Curvature - Same LT values**  
 The Smaller the EED (Lens Positioning), the Smaller the ACD

**CONCLUSIONS**  
 Exterior Distance (EED) = New Lens Factor with applications in Glaucoma - Narrow Angle - Risk of Acute Glaucoma

**IOL Calculation: Effective Lens Position Optimization**

→ **Critical Point for IOL Calculation and ELP**

## Anterior Insertion of Iris Root: Anatomical Criteria by Casia2 (Tomey)

Maria-Julia BOVIS, Charlotte SIEFF, Dr Michel PUECH (Explore Vision)

**Objective:** To evaluate the anterior insertion of the iris root in eyes with narrow angle and anterior angle closure mechanism in very well diagnosed by IOL calculation of ciliary process anterior protrusion in case of pseudo exfoliation (PEX) when process analysis is limited by the signal obstruction, but SS-OCT Casia 2 can identify in other angle closure mechanism: anterior insertion.

**Purpose of the study:** to highlight anatomical criteria of Angle Closure mechanism due to anterior iris root insertion.

**Materials and Methods**

**OCT Casia 2 (Tomey) angle scans:** in glaucoma conditions  
 - A principal meridian (A45 and T2 O Clock)  
 - 45 eyes selected for angle imaging in case of narrow angle and divided in two groups according to IEM diagnosis of iris root anterior insertion:  
 - Group 1: closed angle by its root anterior insertion (22 eyes)  
 - Group 2: closed angle with its root anterior insertion (23 eyes)

**Two measurements:**  
 - Distance between sclera root to the end of the epithelium  
 - Iris thickness at 30µm from the end of the epithelium

**Narrow but open angle**  
 anterior  
 posterior

**Closed Angle (Red): Anterior Insertion of the Iris Root**

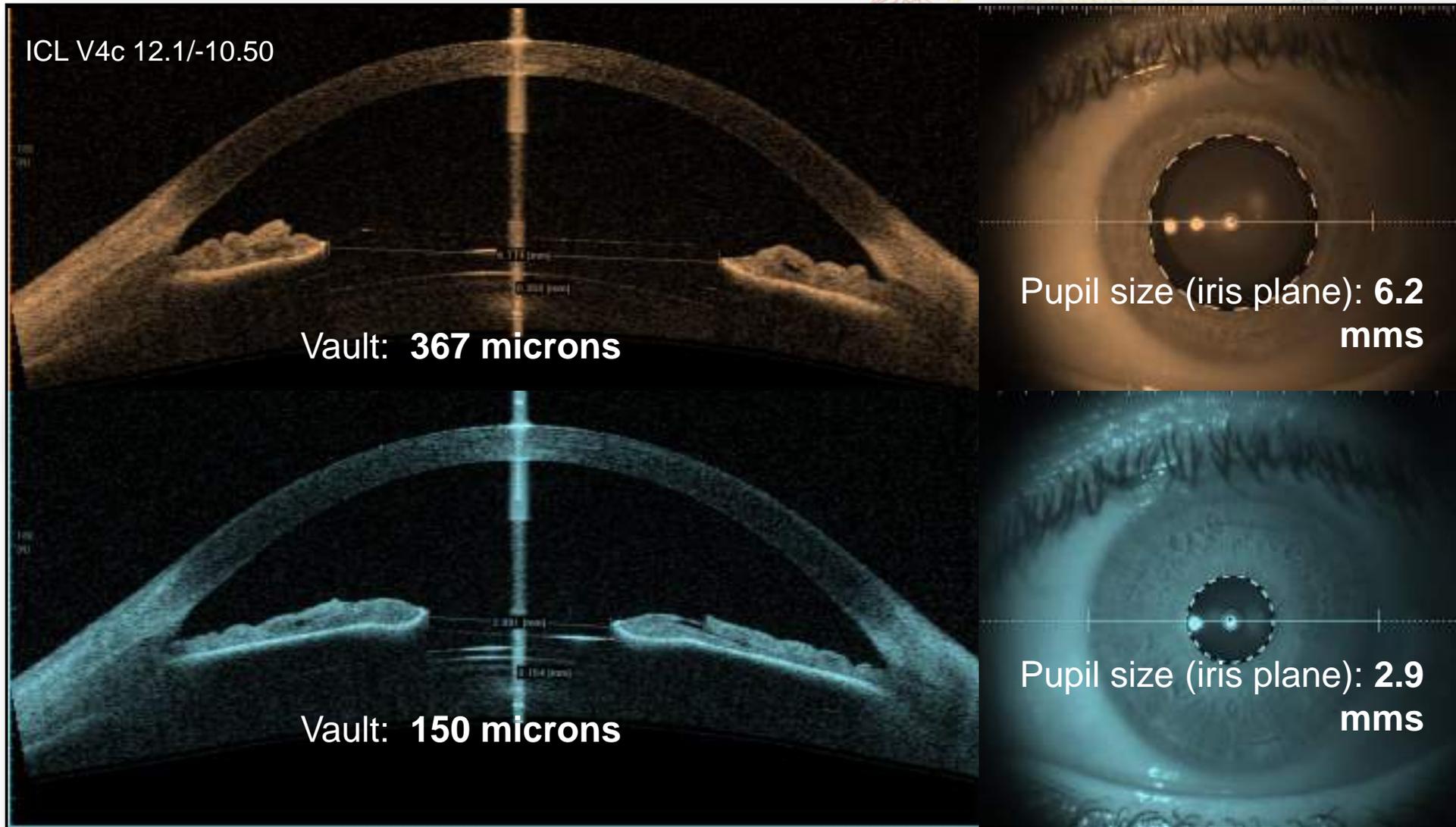
**Closed Angle (Blue): Anterior Insertion of the Iris Root**

**Results:**  
 Distance from sclera root to the end of the epithelium (µm) (mean ± SD) (n = 45 eyes):  
 - Group 1: Mean Value: 195 µm ± 51 (22 eyes)  
 - Group 2: Mean Value: 436 µm ± 81 (23 eyes)

**Discussion:**  
 The anterior meridian (A45) from end of sclera epithelium by IOL calculation (IOL calculation) is clearly the end of angle closure mechanism. Based on measurement, the anterior distance is significantly smaller in narrow angle insertion mechanism.

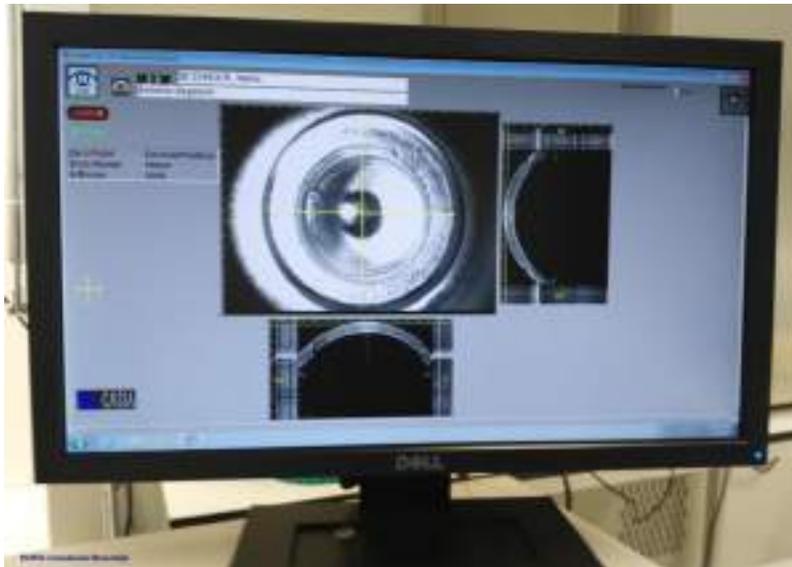
**Conclusion:**  
 IOL calculation is significantly smaller in narrow angle insertion mechanism. The iris thickness at 30µm from the end of the epithelium is significantly smaller in group with PEX than in insertion.

# Light-induced vaulting changes of ICL



# Euro corneabank Beverwijk (CASIA1)

## Topo of a Cornea



# Casia2 in cornea banking



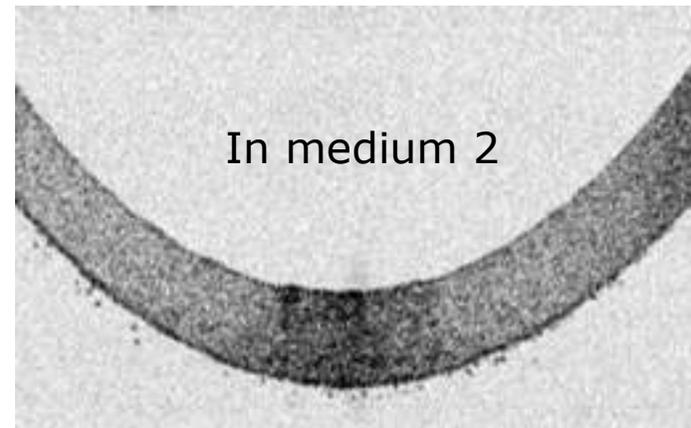
- **Measurement under sterile conditions in the culture flask**
- **Measurement of corneal characteristics**, e.g. front & back surface radius, asphericity, thickness profile
- **Screening for scars**, opacities, situations after trauma, refractive surgery, pterygium surgery etc.
- **Avoidance of ,surprises`** after keratoplasty, measurement complimentary to the normal slit lamp control and endothelial measurement...
- **Qualification for elective PK**, or restricted to DALK, DMEK/DSAEK or á chaud PK

# Casia2 in cornea banking

- Normal procedure: cultured in medium 1 after processing



- Transfer to medium 2 (with dextrane) 1 or 2 days prior to keratoplasty for dehydration



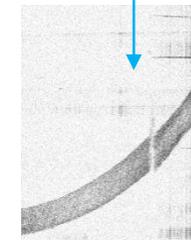
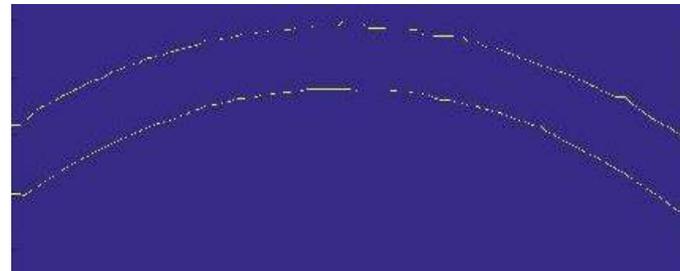
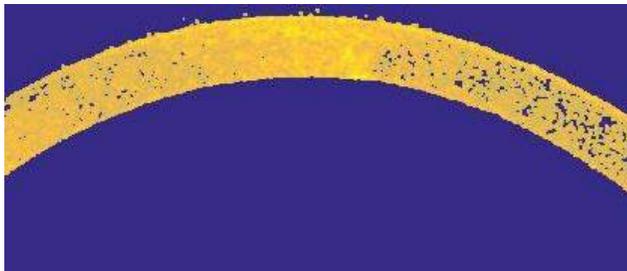
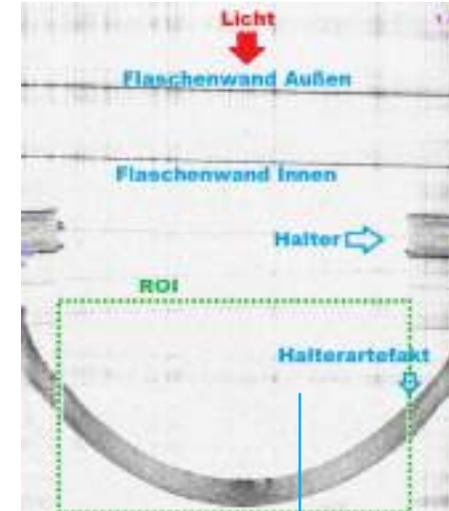
# Casia2 in cornea banking



# Casia2 in cornea banking



- Data import to MATLAB
- Region of Interest for elimination of artifacts
- Extract background noise (Median-Filter)
- Adapt contrast and brightness
- Opening (erosion and dilatation)
- eliminate central reflex (Purkinje I)
- Fill missing regions (Tophat transformation)
- Edge detection

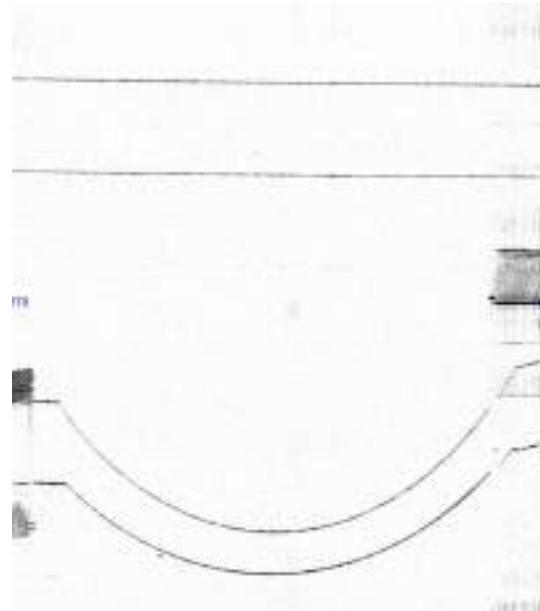
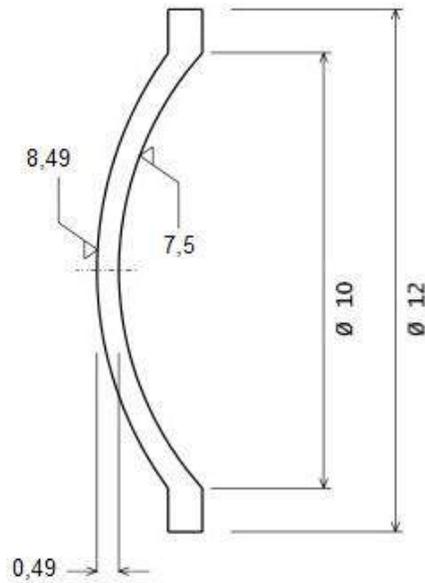


# Casia2 in cornea banking

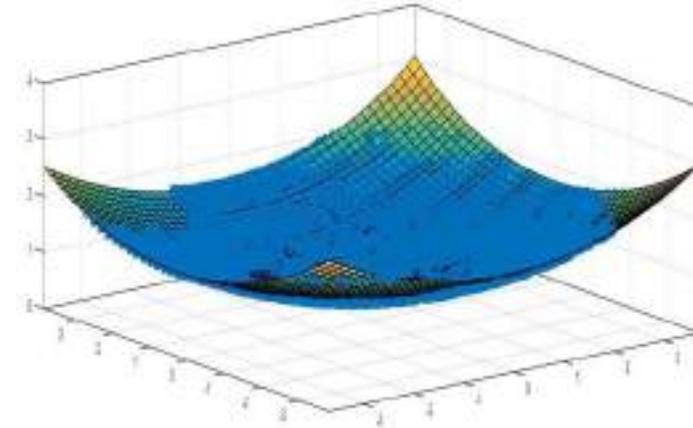


## Fit & raytracing:

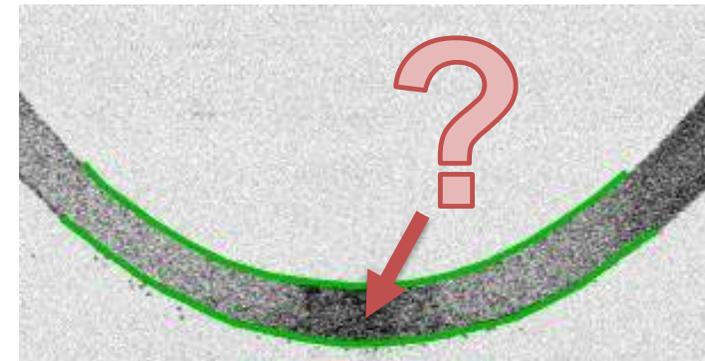
- Determination of back & front surface
- Iterative biconic fit, floating and rotating parametric biconic surface
- Inverse raytracing correction of the front surface (to eliminate optical distortions)
- Calculation of thickness profile



Our measurement and calibration phantom Universität des Saarlandes:



Around 200 eye bank corneas are measured!  
Goal: screening 100% sample size (~ 500/yr in Homburg)



# Changes and updates with just one year

- Enhanced Topo Analysis
- Improved Corneal Analysis
- PreOp Cataract sheet adjustments incl new parameters & Barrett
- New Toric Screen incl Barrett Toric
- CSV output and report function improvements
- Lens Analysis → Lens and IOL Trace in one screen added

# Changes and updates with just one year

- New parameters for topography available (Kmax)
- Toric IOL axis measured and shown on Lens Analysis screen
- For Bleb/ Raster → Enface/Rotation function
- Synchronization of parameters between IOL Cal. and Toric
- PreOp Cataract Settings with coloured threshold
- WtW can be used for IOL calculation
- Summary Report (IOL calculation)
- PostOp → new IOL scan function

# PreOp Cataract Sheet adjustments

- Barrett formula Universal II and True K was added free of charge!

Pre-op Cataract [IOL Calculation] ID: 07021950 Exam Date: 2018/07/16 13:37:45 QS: OK (3 / 3) Details

Surgeon: Common(Common) IOL Type: Free Formula Type: Free

Target Ref. 0.00 Device CASIA2 KI=1.3375 Device CASIA2 Barrett True-K  
 AvgK Kerato 45.94[D] ACID [Epi.] 3.39 [mm] Lasik History Myopic Lasik  
 Device OA-2000 Fitting Immersion Dia. 3.0mm  
 Axial [mm] 24.00 K1(Kf) 45.23 [D] LT 4.39 [mm]  
 K2(Kc) 46.64 [D] WTW 11.47 [mm]

Formula	Barrett UII	Barrett UII	Barrett UII	Barrett True-K
Model	Alcon:Test	Occulentis:Test	Rayner:Test	
Lens Const	LF 1.35	LF 1.88	LF 1.15	---
Power.	15.78	16.59	15.49	---
List	IOL Ref.	IOL Ref.	IOL Ref.	IOL Ref.
	14.00 1.21	14.50 1.36	13.50 1.38	
	14.50 0.88	15.00 1.04	14.00 1.04	
	15.00 0.54	15.50 0.71	14.50 0.69	
	15.50 0.19	16.00 0.39	15.00 0.35	
	<b>16.00 -0.15</b>	<b>16.50 0.06</b>	<b>15.50 -0.00</b>	
	16.50 -0.51	17.00 -0.28	16.00 -0.36	
	17.00 -0.86	17.50 -0.62	16.50 -0.72	
	17.50 -1.22	18.00 -0.96	17.00 -1.09	
	18.00 -1.59	18.50 -1.31	17.50 -1.46	

Settings Report Cornea Detail Post op. Values Statistics Personal Const. EXIT

# New Toric Screen incl Barrett Toric

- Two different Toric Calculators → can be adjusted up to doctors wish

The screenshot displays the 'Pre-op Cataract [Toric IOL]' software interface. At the top, it shows patient information: ID: 07021950, Exam Date: 2018/07/16 13:37:45, and Name: MamaCataract PrePost. The interface is divided into several functional areas:

- Top Bar:** Surgeon: Common(Common), Formula Type: Free, Camera Index: 3, Color Palette: Gray.
- Left Panel (Toric IOL):** Includes an 'Axial Power [Real]' heatmap and a list of parameters: Target Ref. (0.00 [D]), Model, LF (1.98), Device (GA-2000), Fitting (Immersion), Axial (24.00 [mm]), Device (CASIA2), ACD [Epi.] (3.39 [mm]), LT (4.39 [mm]), and WTW (11.47 [mm]).
- Center-Left Panel:** Device (CASIA2), Cyl[D] (FRCyl), Kf[D] (43.81 @ 177), Ks[D] (45.45 @ 87), Incision Axis (10 \* abs.), and SIA (0.20 [D]).
- Center Panel:** 'CASIA Toric' simulation view showing a yellow toric lens on a corneal map with axes labeled 88°, 10°, and 0°.
- Center-Right Panel:** A dropdown menu for 'CASIA Toric' with options: Barrett Toric, CASIA Toric, Barrett Toric, and Barrett True-K Toric. A red box highlights this menu.
- Right Panel (Simulation):** IOL View (ON/OFF), Angle Mode (Abs./Rel.), Reference Axis (0 \* abs.), Reference Axis 2 (0 \* abs.), Reference Axis 3 (0 \* abs.), Reference Axis 4 (0 \* abs.), Target Axis (IOL) (88 \* abs. (+88) rel.), and Incision Axis (10 \* abs. (+10) rel.).
- Bottom Panel:** A table with columns 'Cyl' and 'Residual' for both 'CASIA Toric' and 'Barrett Toric' calculations. A red box highlights the Barrett Toric section of the table.

	Cyl	Residual	Cyl	Residual
CASIA Toric	2.25	0.280 @ 88°	1.50	0.260 @ 88°
Barrett Toric	3.00	0.230 @ 178°	2.25	0.220 @ 178°
Barrett True-K Toric	3.75	0.750 @ 178°	3.00	0.710 @ 178°

Bottom navigation buttons: Settings, Report, Cornea Detail, Toric Detail, Front Monitor, EXIT.

# Pre-Op Cataract Summary Report

**Pre-op Cataract** Surgeon: Common(Common) **TOMEY**  
**ID: 17221075** Name: CASIA2 Ver.3E.01

Exam Date: 2018/06/12 10:44:27 **Q5: OK**  **Exam Date: 2018/06/12 10:46:12** **Q5: OK** 

Axial: 26.00 mm	(04-2000,Inversteel)	Axial: 25.09 mm	(04-2000,Inversteel)
K1(Kf): 8.15 mm	K2(Ks): 7.97 mm	K1(Kf): 8.01 mm	K2(Ks): 7.91 mm
Cyl: -0.93 D	Cyl AX: 29 °	Cyl: -0.51 D	Cyl AX: 133 °
(CASIA2,Ernto,p2)		(CASIA2,Ernto,p2)	
ACD[Epi.]: 4.05 mm	LT: 4.29 mm	ACD[Epi.]: 3.93 mm	LT: 4.36 mm
WTW: --- mm	(Unknown)	WTW: --- mm	(Unknown)

IOL Power		TargetRef : 0.00 D		IOL Power		TargetRef : 0.00 D	
PL:Shammas-PL		PL:Shammas-PL		PL:Shammas-PL		PL:Shammas-PL	
IOL	REF(D)	IOL	REF(D)	IOL	REF(D)	IOL	REF(D)
14.00	1.77	14.50	1.72	15.50	1.96	16.50	1.61
14.50	1.42	15.00	1.38	16.00	1.61	17.00	1.26
15.00	1.06	15.50	1.03	16.50	1.25	17.50	0.91
15.50	0.70	16.00	0.67	17.00	0.89	18.00	0.56
16.00	0.33	16.50	0.31	17.50	0.53	18.50	0.20
<b>16.50</b>	<b>-0.04</b>	<b>17.00</b>	<b>-0.05</b>	<b>18.00</b>	<b>0.16</b>	<b>19.00</b>	<b>-0.16</b>
17.00	-0.42	17.50	-0.41	18.50	-0.21	19.50	-0.53
17.50	-0.80	18.00	-0.79	19.00	-0.58	20.00	-0.90
18.00	-1.18	18.50	-1.16	19.50	-0.96	20.50	-1.27
18.50	-1.57	19.00	-1.54	20.00	-1.35	21.00	-1.65
19.00	-1.96	19.50	-1.93	20.50	-1.74	21.50	-2.04
Power : 16.43	A-Coat:118.30	Power : 16.89	A-Coat:118.00	Power : 18.22	A-Coat:118.30	Power : 18.78	A-Coat:118.90

PL:Shammas-PL		Barrett UII		PL:Shammas-PL		Barrett UII	
IOL	REF(D)	IOL	REF(D)	IOL	REF(D)	IOL	REF(D)
14.00	1.82	---	---	16.00	1.67	---	---
14.50	1.47	---	---	16.50	1.31	---	---
15.00	1.11	---	---	17.00	0.96	---	---
15.50	0.75	---	---	17.50	0.60	---	---
16.00	0.39	---	---	18.00	0.23	---	---
<b>16.50</b>	<b>0.02</b>	---	---	<b>18.50</b>	<b>-0.14</b>	---	---
17.00	-0.35	---	---	19.00	-0.51	---	---
17.50	-0.73	---	---	19.50	-0.89	---	---
18.00	-1.11	---	---	20.00	-1.27	---	---
18.50	-1.50	---	---	20.50	-1.66	---	---
19.00	-1.89	---	---	21.00	-2.05	---	---
Power : 16.51	A-Coat:118.40	Power : ---	UF---	Power : 16.31	A-Coat:118.40	Power : ---	UF---

Clinic Info : /

2018/09/14 11:07:40 (Page 5/5)

# CSV Output and report function improvements

We have changed a lot of “report” functions, since so many doctors were not as happy with the limited report possibilities.

Since the CASIA2 is also used for studies and research, CSV output is essential and needed to be improved.

The reporting itself was already very good, but not to be individualized. Now, with new software starting from version 3D the reporting is much easier, since the user can define the report settings and is able to generate more reports with simply one click

# CSV Output and report function improvements

- CSV adjustments with Output CSV button

Output CSV

Topography

CSV

Index

Map Data

Ferrara Rings

Report

Single Map

4 Maps

6 Maps

Ectasia Screening

Fourier 1

Fourier 2

2D Analysis

CSV

Index

Report

ACA

CCT/ACD

Flap

Lens Analysis

CSV

Index

Report

Image

JPG PDF DICOM

Output EXIT

Just by ticking these boxes you can generate CSV.files as well as „reports“ – either as jpg, pdf or dicom

→ With this function ALL patient data can be exported at once, or one patient can be exported at once.

→ Much smoother for studies or just for patient recording

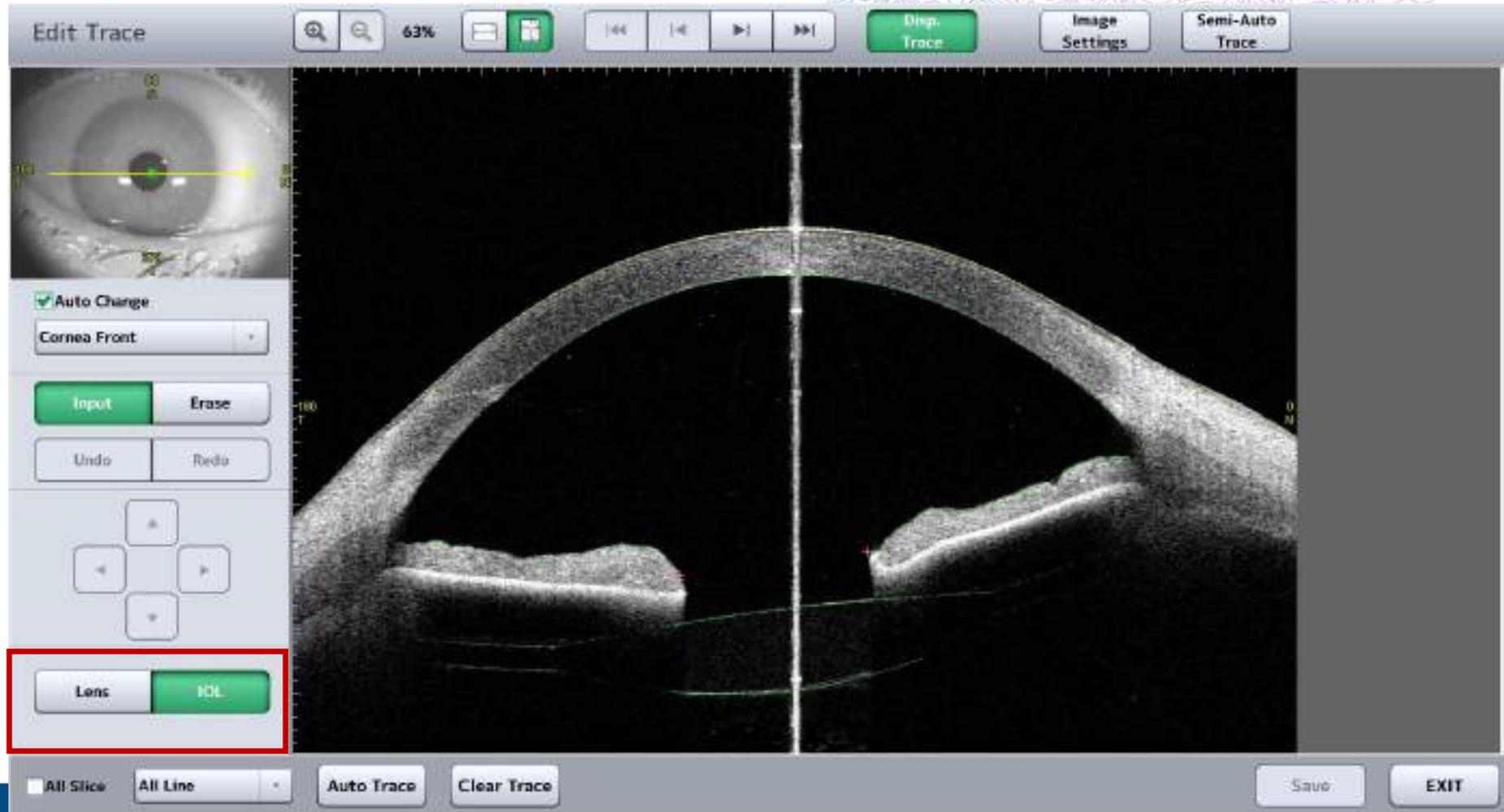
# CSV Output and report function improvements

- Report function from the measurements are now individual and more reports at once can be retrieved



# Lens Analysis → Lens and IOL Trace in one screen added

In edit mode the trace of lens can now be easily switched between crystalline lens and IOL



# New parameters displayed in topo

Keratometric		
Thumb	Ks	45.3 D @ 96°
	Kf	44.5 D @ 6°
	CYL	-0.7 D @ 6°
	AvgK	44.9 D
Image	AA (10mm)	100.0 %
	ACCP	45.2 D
	Ecc (9.0mm)	0.43
Posterior		
Standard	Ks	-6.3 D @ 93°
	Kf	-6.0 D @ 3°
	CYL	-0.3 D @ 93°
	AvgK	-6.2 D
Fourier	AA (10mm)	100.0 %
	Ecc (9.0mm)	0.53
	Real	
Ectasia	Ks	44.2 D @ 98°
	Kf	43.7 D @ 8°
	CYL	-0.5 D @ 8°
	AvgK	44.0 D
	AA (10mm)	100.0 %
	ACCP	44.3 D
Pachymetry		
	Apex	513 um
	Thinnest	507 um ( 0.2 mm, -0.6 mm)
	Pupil D	3.25 mm ( 0.1 mm, 0.1 mm)
	ACD [Endo.]	2.85 mm
	ESI	0 %

Ver3D

Ver3E



Keratometric		
Thumb	Ks	45.3 D @ 96°
	Kf	44.5 D @ 6°
	CYL	-0.7 D @ 6°
	AvgK	44.9 D
Image	KMax(10mm)	47.2 D
	Ecc (9.0mm)	0.43
	ACCP	45.2 D
Posterior		
Standard	Ks	-6.3 D @ 93°
	Kf	-6.0 D @ 3°
	CYL	-0.3 D @ 93°
	AvgK	-6.2 D
Fourier	KMax(10mm)	-6.4 D
	ACCP	-6.2 D
	Real	
Ectasia	Ks	44.2 D @ 98°
	Kf	43.7 D @ 8°
	CYL	-0.5 D @ 8°
	AvgK	44.0 D
	HOAs (4mm)	0.39 um
	KMax(10mm)	46.5 D
Pachymetry		
	Apex	513 um
	Thinnest	507 um ( 0.2 mm, -0.6 mm)
	Pupil D	3.25 mm ( 0.1 mm, 0.1 mm)
	ACD [Endo.]	2.85 mm
	ESI	0 %

# Toric axis marks measured and shown afterwards

- Toric IOL axis shown on Lens Analysis screen → new software coming with Q.S. for improvements

The screenshot displays the 'Lens Analysis' software interface. At the top, it shows patient information: ID: 2056, Exam Date: 2018/09/06 14:19:38, and a comment field. Below this is a toolbar with buttons for 'Analysis Line', 'Edit Trace', 'Snap Trace', and 'Manual Measure'. The main area shows a 3D model of an IOL with a yellow toric axis line and a red box highlighting it. A red arrow points from this box to a larger, detailed view of the IOL model. The '3D Result' panel on the left shows the following data:

3D Result	
: <i>Not IOL Scan data!</i>	
Tilt	9.8° @ 16°
Decent.	0.35 mm @ 27°
Toric Axis	7°

The '2D Result' panel at the bottom shows:

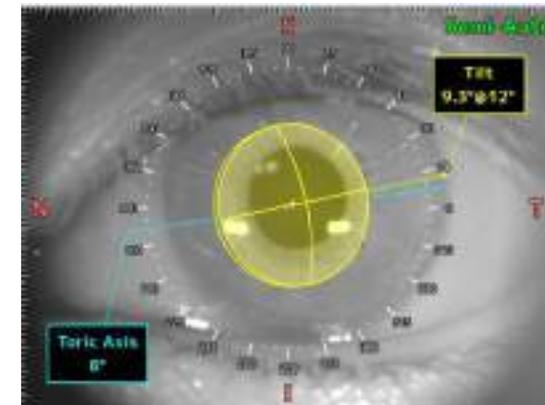
2D Result	
Tilt	9.5°
Decent.	0.31 mm

On the right side, there is a 'Manual Measurement Tool' panel with options for 'Distance / Area', 'Add', 'Move', and 'Delete', along with 'Clear' and 'Save' buttons. At the bottom of the interface are buttons for 'Report', 'Image Comparison', 'Output CSV', and 'EXIT'.

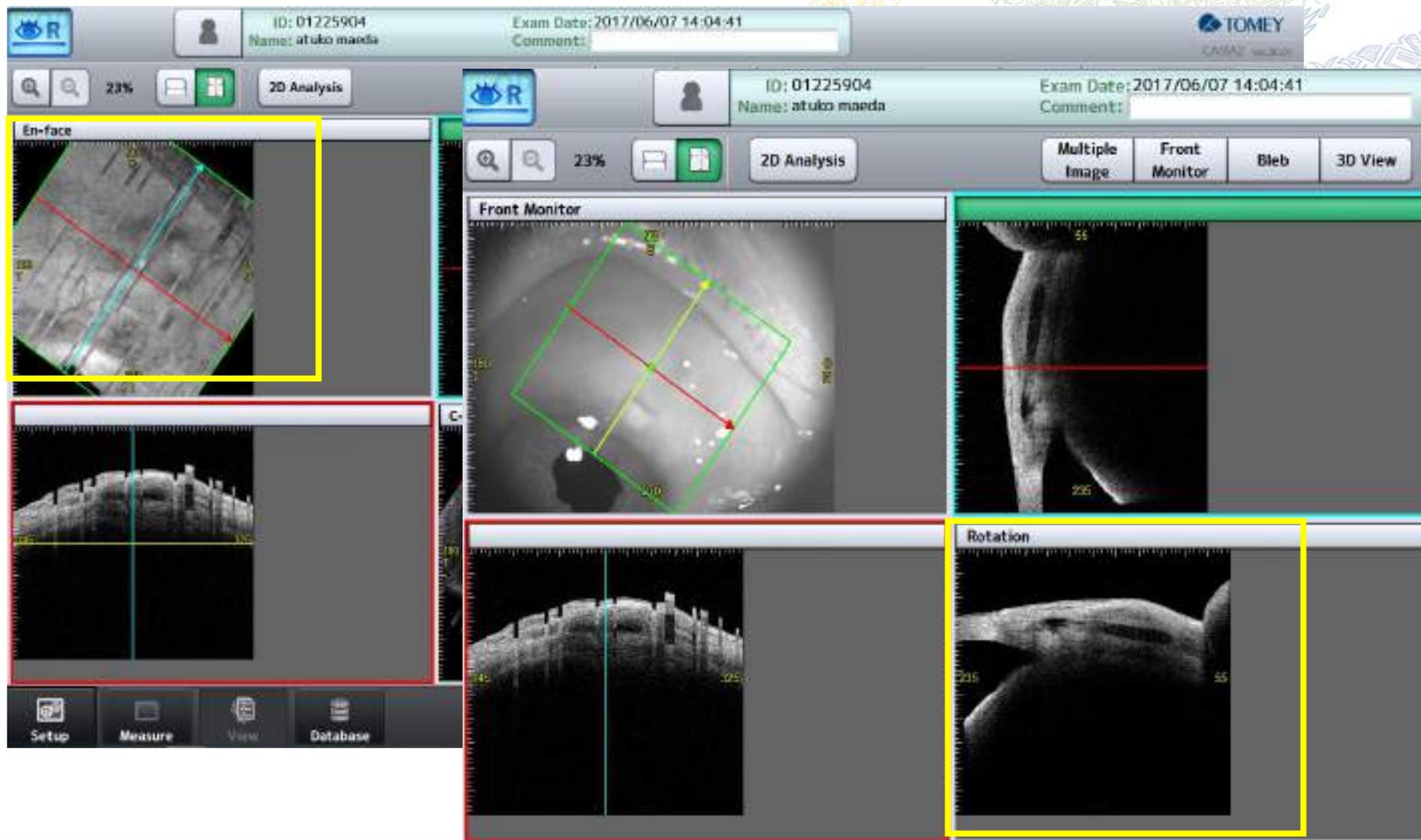
# Toric axis marks measured and shown afterwards

- Post Op mode: dark room environment is recommended
- Analysis is done in 4mm → mydriasis is not needed (normally)
- Tolerance (after study from Japan) is around +/- 4° compared to slit image
- Used as a screening tool to determine quickly, if there is a big shift in axis

<b>QS : OK</b>			
<b>Pupil:OK</b>			
Pupil Diameter	:	4.55mm (≥4.00)	OK
<b>Motion:OK</b>			
Valid averaged images	:	8/8 (≥6)	OK
Valid B-scan images	:	32/32 (≥28)	OK



# Bleb/Raster Scan → Enface & Rotation



# CASIA2 – Benefits

- Non-invasive and non-contact testing
  - ⇒ Patient-friendly
- Much faster scanning speed ⇒ Patient-friendly and also Doctor-friendly
- Testing by optometrists
  - ⇒ Doctor-friendly
- Illustration to patients using images by OCT
  - ⇒ Greater satisfaction
- Several Indexes  
(angle analysis, ACD, corneal shape)
  - ⇒ Effective for screening and observation

# CASIA2 – Benefits

- 1.3 $\mu$ m wavelength leads to high penetration
  - ⇒ Visualize narrow angle clearly
  - ⇒ Extract bleb deeply
  - ⇒ Deeper scanning penetration
- Several applications for anterior segment
  - ⇒ Auto-analysis all around the angle (360° with auto SS detection)
  - ⇒ Calculation of bleb cubic content
  - ⇒ Corneal shape analysis function
  - ⇒ Applications for cataract surgery

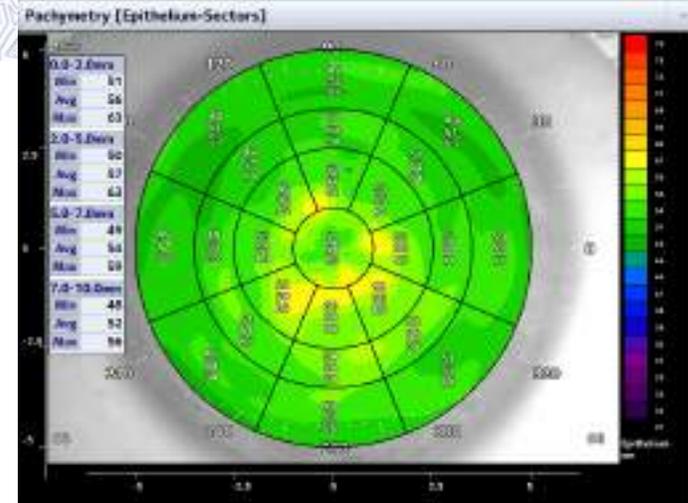
# CASIA2 – Benefits

- Continuous improvement of software
- Nice new plans for CASIA2
- Lots of experience in anterior Segment OCT
- Viewer Station w/o costs
- Software updates w/o costs
- Perfect local support with our skilled distributors
- Connection to our OA-2000
- Measurement delegable to nurse or technician because of the EASE of USE

# CASIA2 – Future Outlooks

- Epithelium thickness map (in segmentation) coming within 2019
- Licensed DICOM version
- Improved WtW measurement
- ICL nomogram → already released for Asian market since the nomograms were established by two japanese doctors: Dr. Nakamura & Dr. Shimizu

For european validation the device is currently in Madrid with Dr. Felix Gonzalez-Lopez



# CASIA2 – Future Outlooks

- ICL Sizing software, how it looks like:

ICL SIZE

ID: 007 Exam Date: 2018/10/24 09:45:14  
Name: Comment:

0 / 302 Image Settings Edit Trace Disp. Trace Analysis Line Manual Measure

NIR Image

WTW  mm  
ACW  mm  
CLR  um  
ATA  mm  
ACD[Endo.]  mm

Target Vault  um

N-K Formula			KS Formula		
Size [mm]	180° - 0° Post Vault [um]	Post ACD [mm]	Size [mm]	180° - 0° Post Vault [um]	Post ACD [mm]
12.1	-512	3.464	12.1	194	2.758
12.6	38	2.914	12.6	423	2.529
13.2	698	2.254	13.2	697	2.255
13.7	1248	1.704	13.7	925	2.027

Settings Report Output CSV EXIT



CASIA2 covers everything  
you need for anterior  
segment diagnostics

