



# Flux

*Coming soon New OCT device*



**OPTOPOL**  
technology

---

▶ Our new OCT 

- Multitmodalities (Posterior, Anterior, Topography, Biometry)
- State of Art in OCT technology
- Comprehensive analysis for practitioners in every specialisation  
Retina specialist, Glaucoma specialist, Refraction surgeons,
- Extremely easy to use Full Auto OCT which can be operate by every one

► **Specification**



- Spectral Domain OCT
- Ultra Hi Speed – 250 000 A-scan /sec
- Ultra Widefield OCT - max. 18 mm
- Wide field 60° True color SLO
  - $\lambda$  450, 520, 635 nm
- Real time eye tracking
- Working distance 37 mm



## ▶ New technology on board

- Minimize Scan time & Maximase clinical information
- World First time used built in FPGA procesor. It allows **Real Time** calculation by unique SoC Zynq CPU.
- FPGA processing of OCT and SLO signals allows to decrease latency of reaction. Tracking response time is on a level of 8 A-scans (with 250 kHz scan frequency)
- Innovative MagLev (Magnetic levitation) C-gate for new scan programs (Biometry measurment, NO ADAPTERS Full Anterior Chamber, extended scan depth)

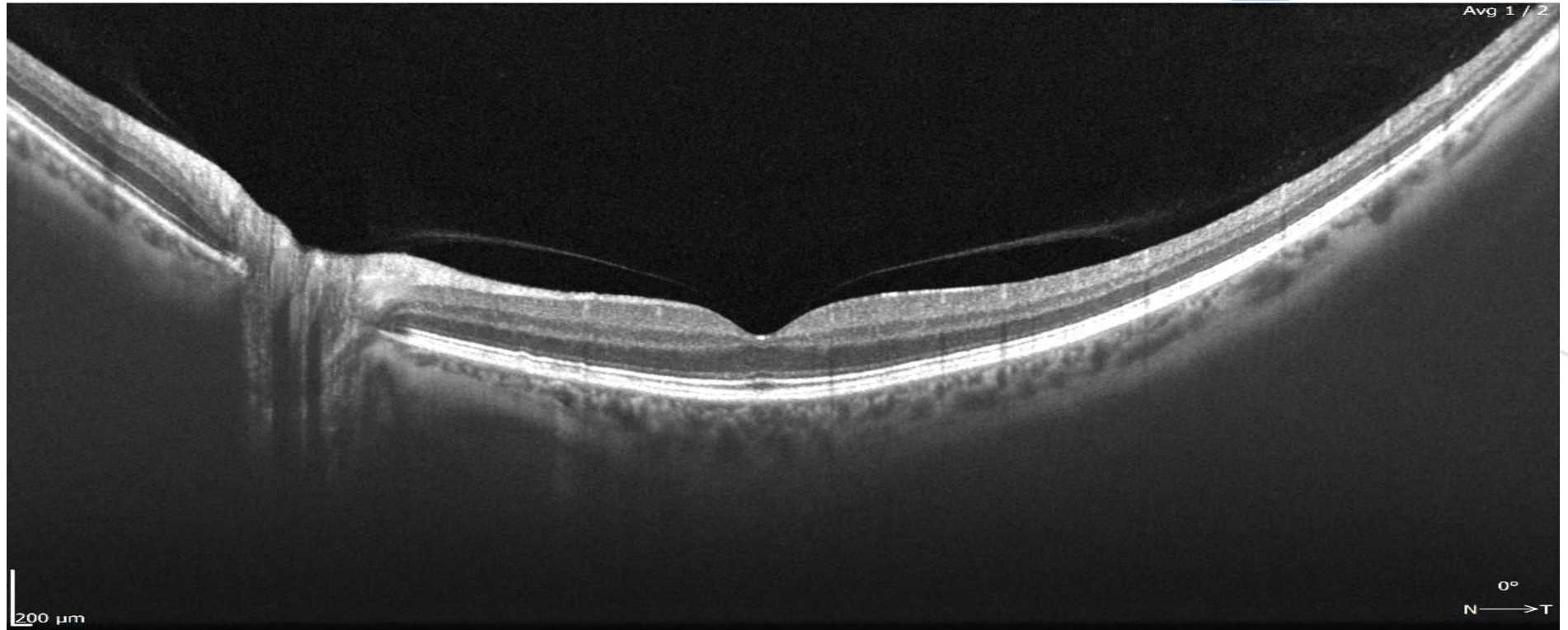


## ► Clinical capabilities

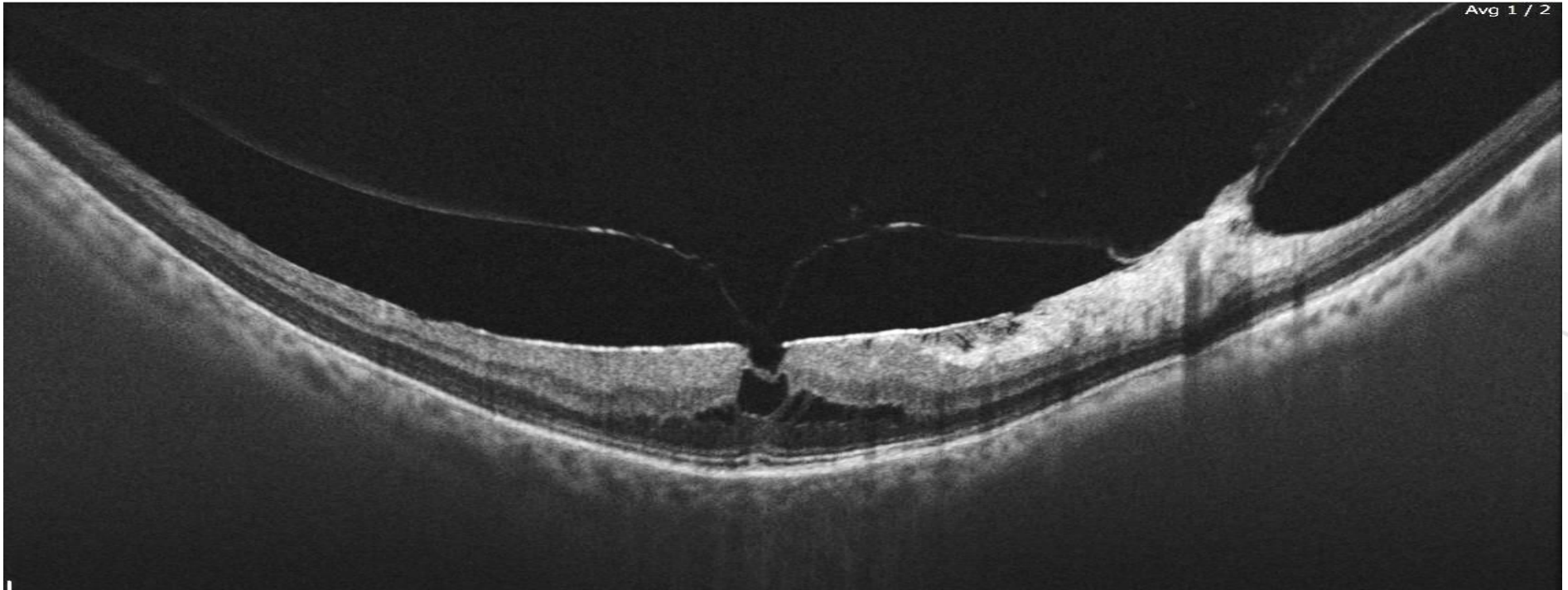
- Ultra Widefield OCT
- Angio OCT
- Retina analysis
- Glaucoma analysis
- Biometry
- Keratometry
- Corneal topography
- Anterior chamber analysis



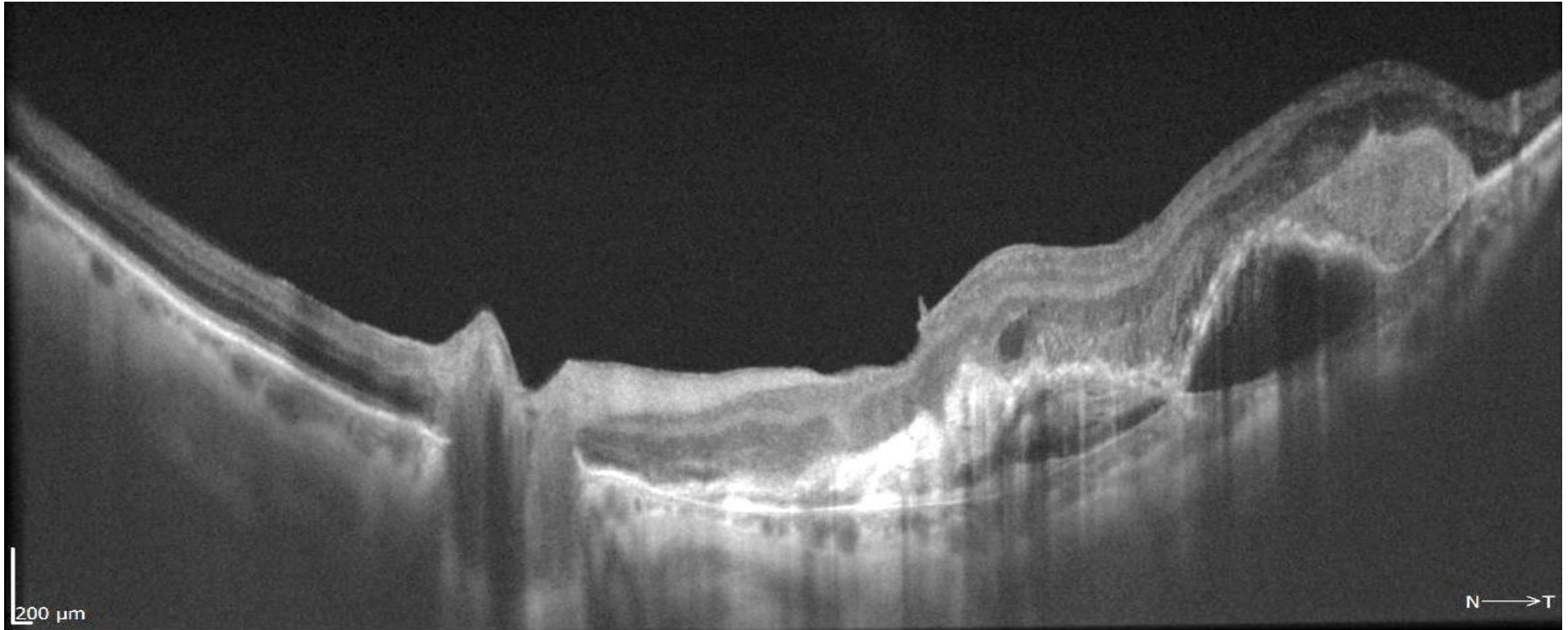
▶ 18 mm scan width



▶ 18 mm Clinical sample

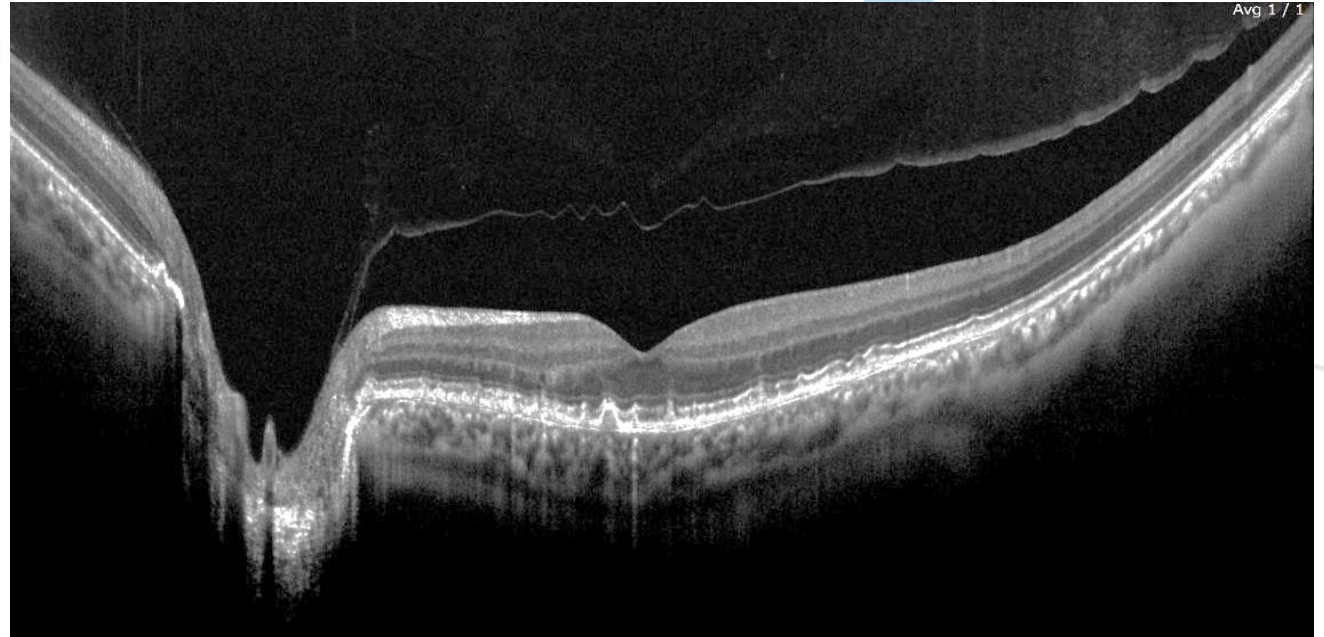
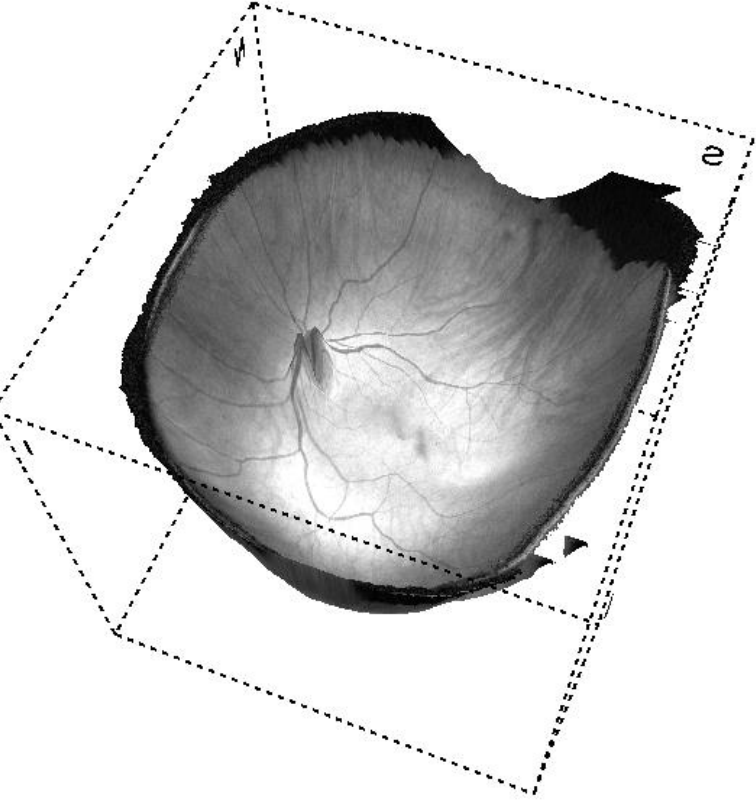


▶ 18 mm Clinical sample



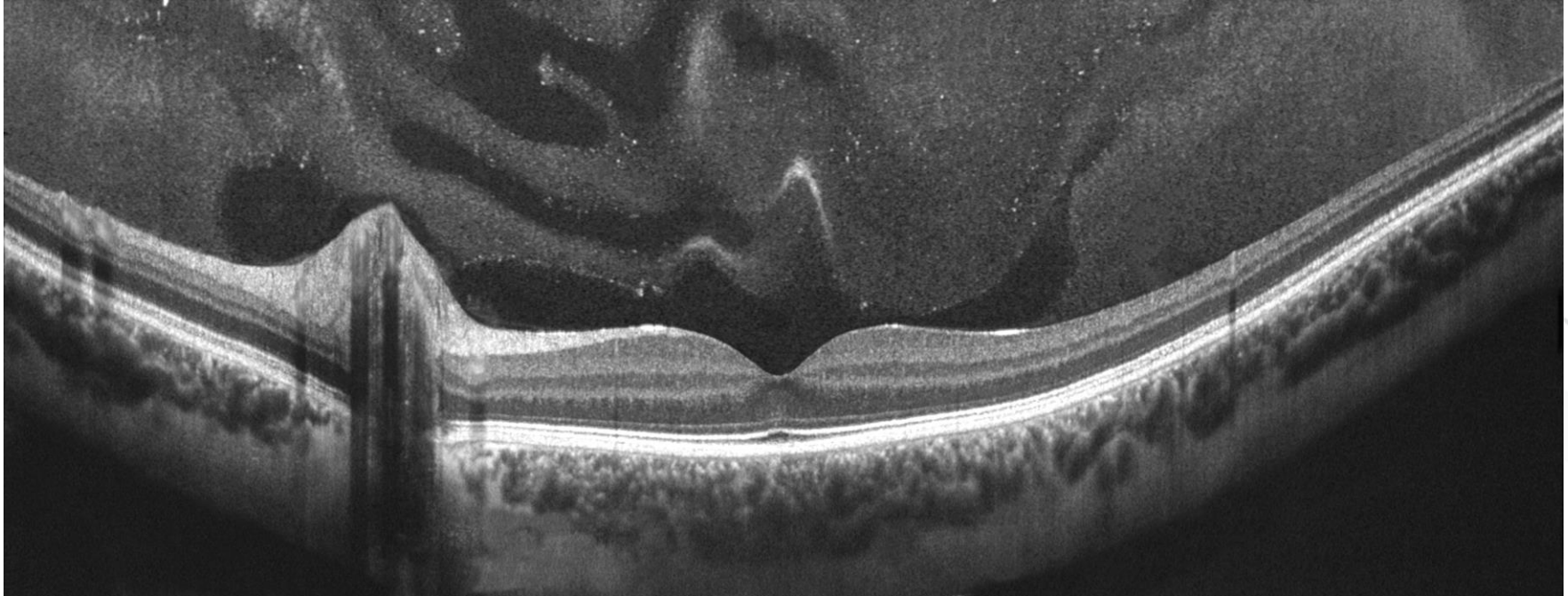


▶ 60° scan width



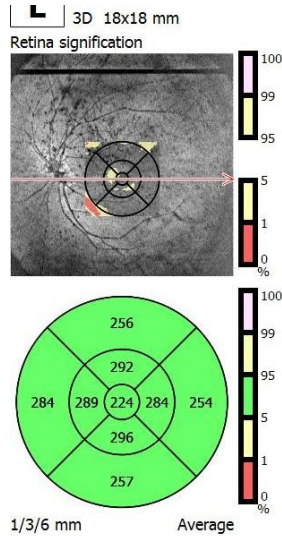
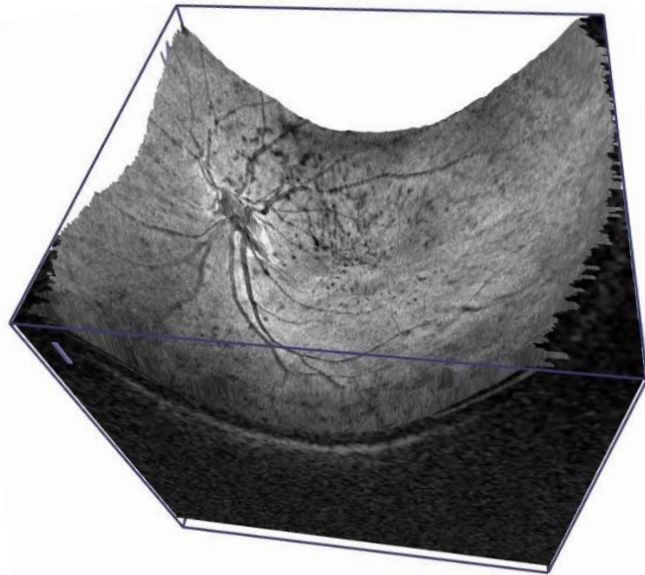
▶ **Enhanced mode**

Vitreous and choroidal details

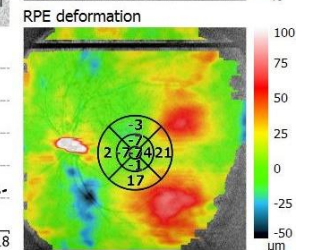
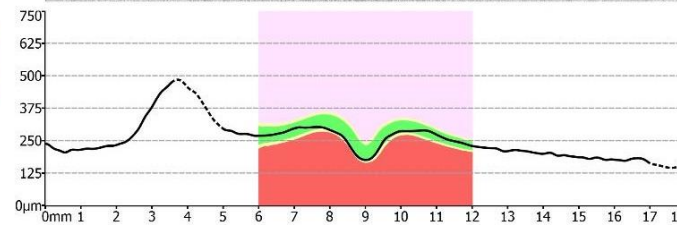
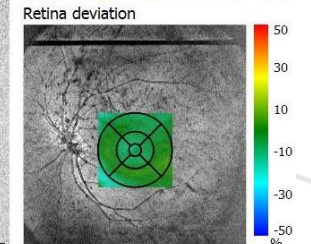
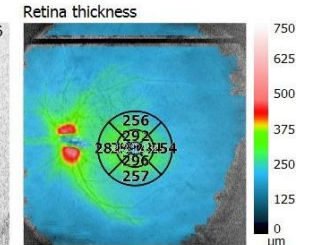
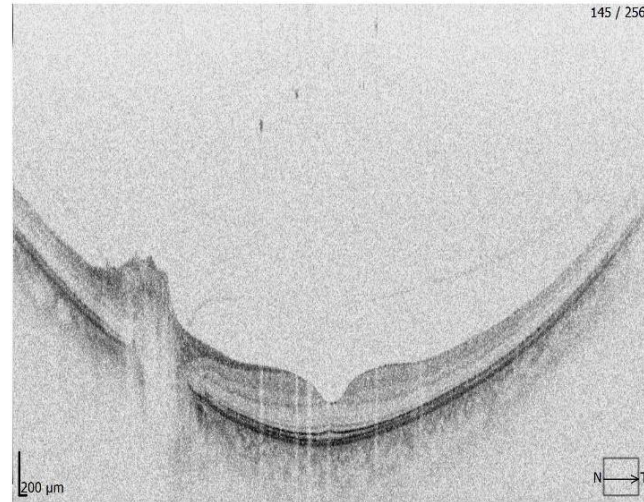


*Does really SS-OCT replace SD OCT?*

▶ Ultra Widefield OCT- provides fully-featured data for analysis!

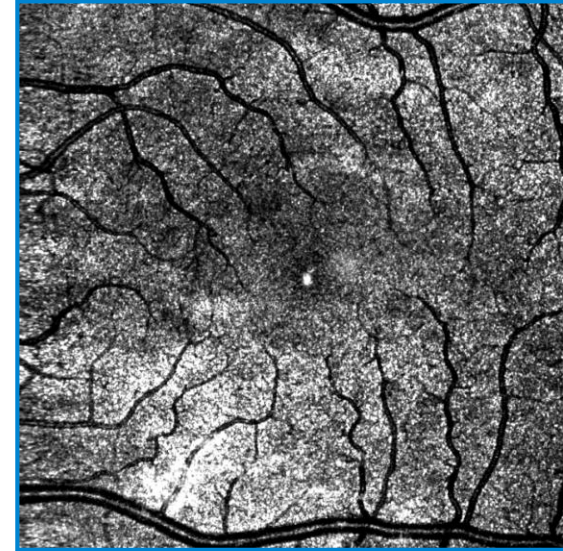
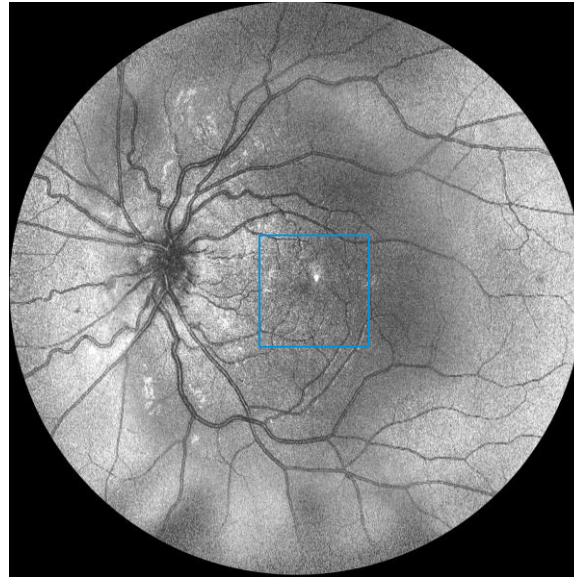


ILM - OS/RPE measurements	
Minimum in Fovea [ $\mu\text{m}$ ]	187
Central sector [ $\mu\text{m}$ ]	224
Area thickness [ $\mu\text{m}$ ]	268
Volume [ $\text{mm}^3$ ]	7,57



## Customize SLO settings

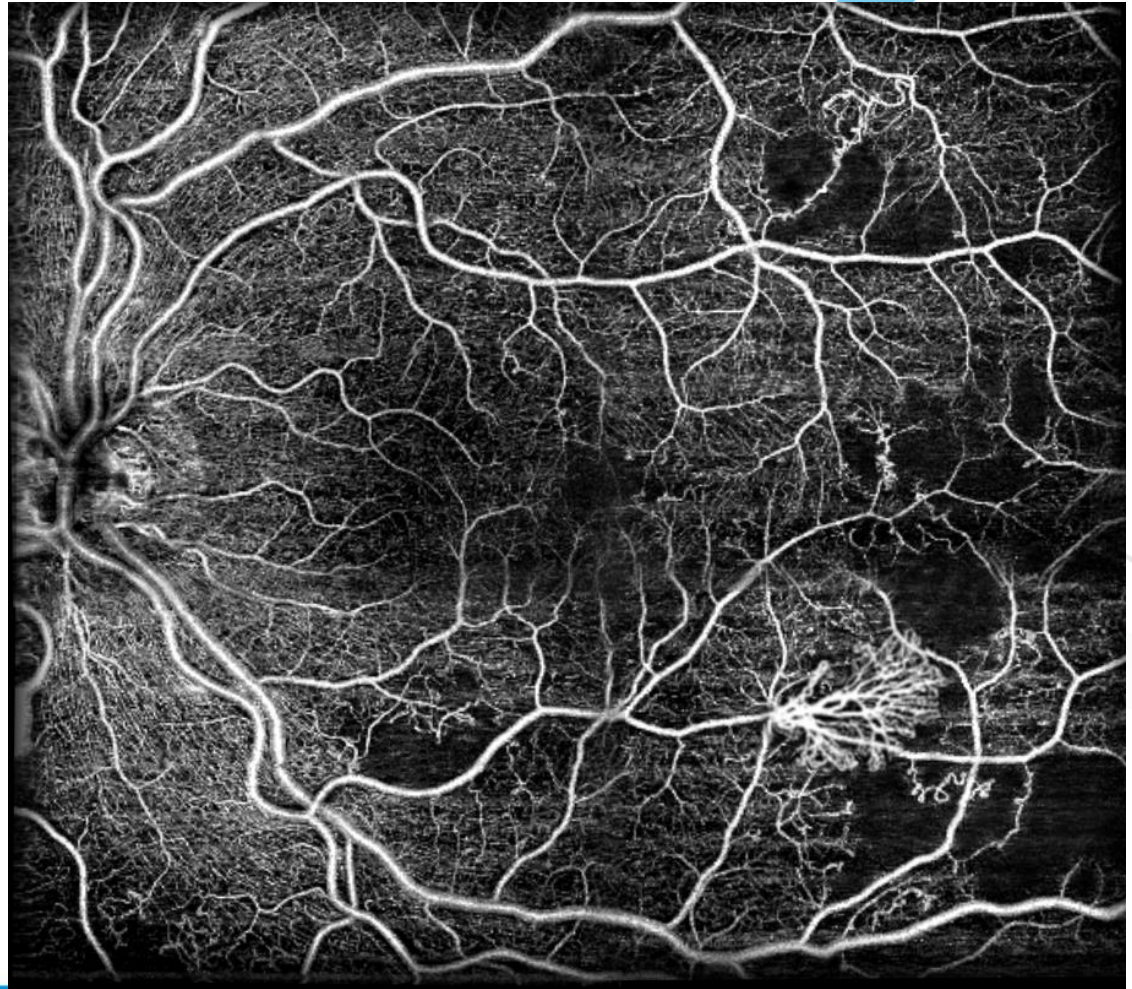
- ▶ True color or 3 separate channels (Red \ Green \ Blue)
- ▶ Scanning range from 3 to 18 mm
- ▶ SLO image scan resolution from 256 to 2048 pixels per line



▶ **Widefield OCT**

Auto Mosaic

- 10 x 10 mm
- 25 x 18 mm



▶ **Angio mosaic functionalities**

▶ **Vascular layers**

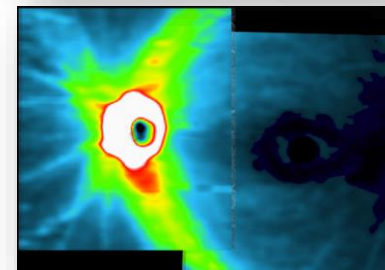
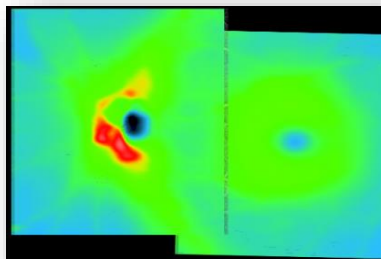
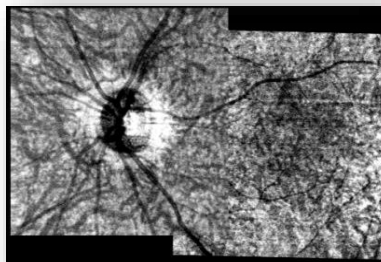
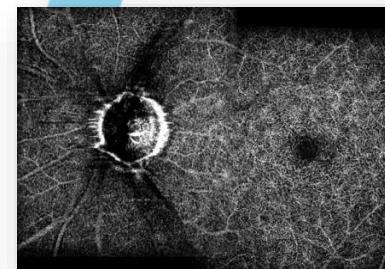
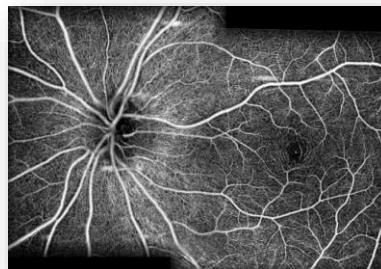
- Vitreous
- Superficial
- RCP
- Deep
- Outer
- Choriocapillaries
- Choroid
- Custom

▶ **Enface**

- Vitreous
- Superficial
- RCP
- Deep
- Outer
- Choriocapillaries
- Choroid
- Custom

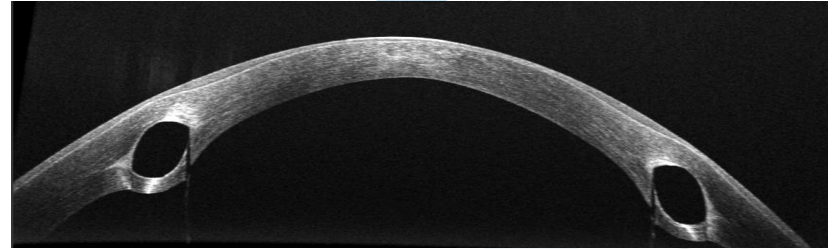
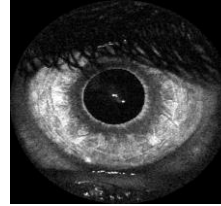
▶ **Thickness map**

- Retina thickness
- NFL thickness

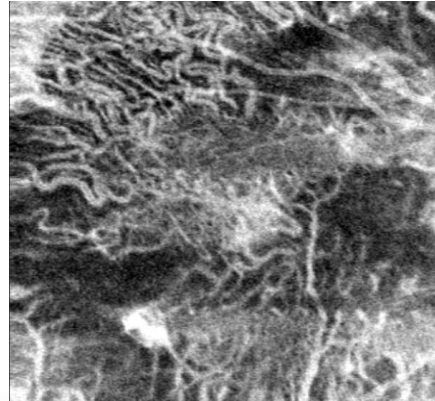
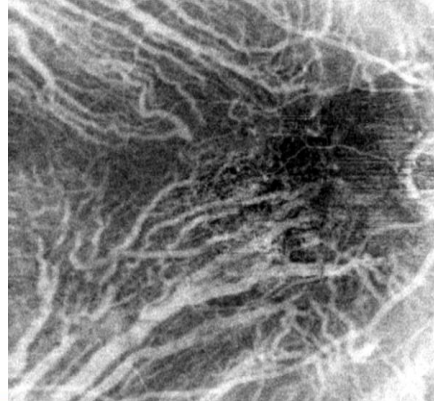
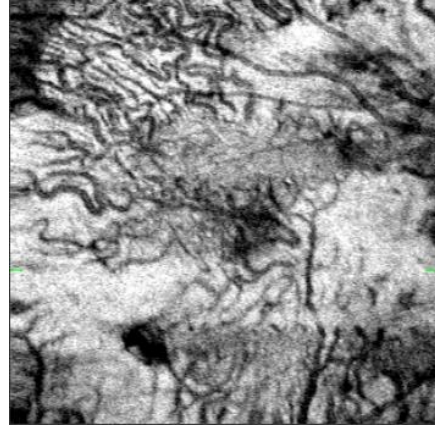
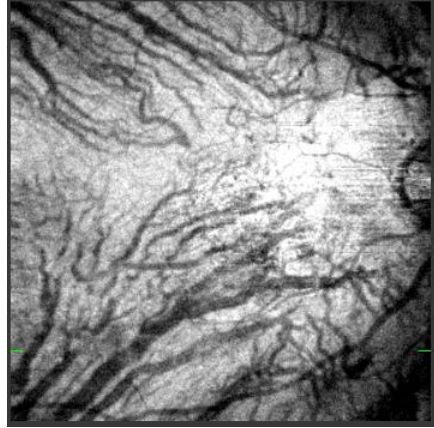


## ▶ Anterior segment imaging

- No external lens required, No adapters !
- Standard Keratometry and Real Keratometry
- Corneal Topography
- Hi Res Wide cornea scan
- Hi Res Angle to Angle



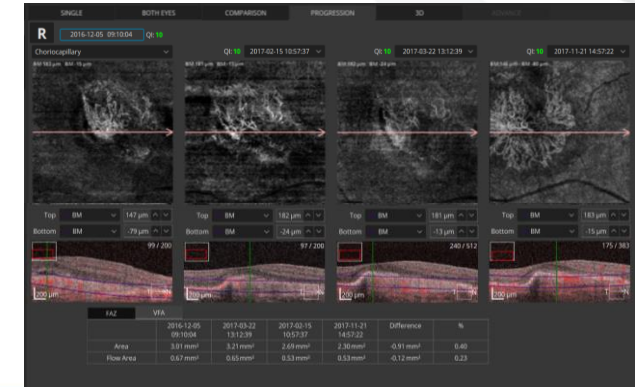
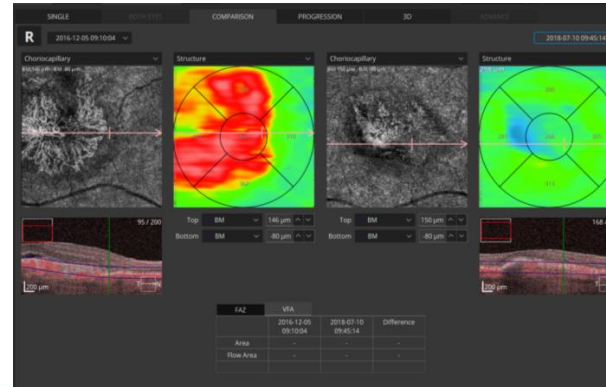
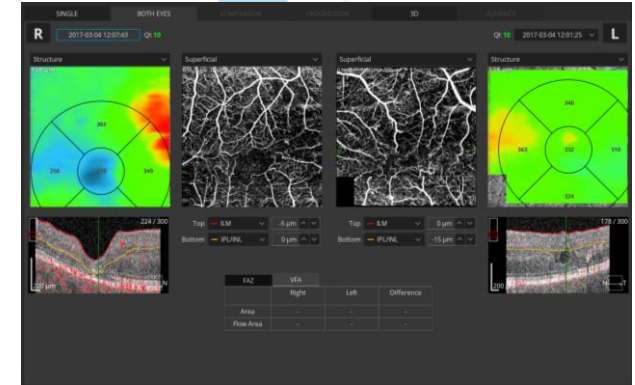
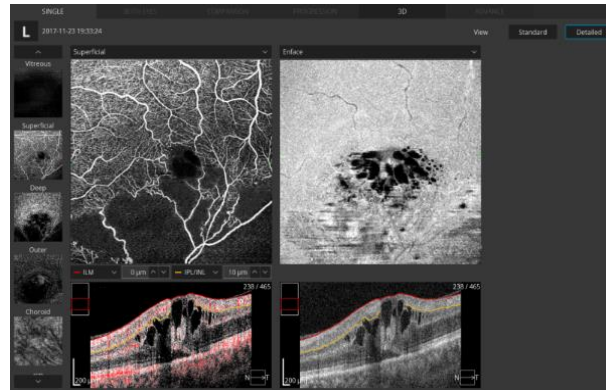
▶ **Choroidal vasculography OCT-A based**





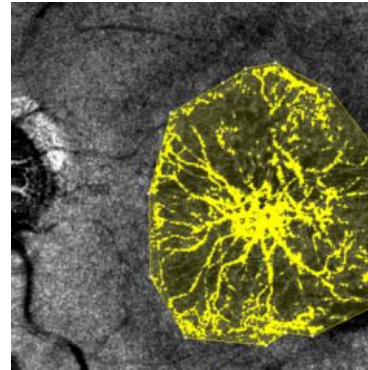
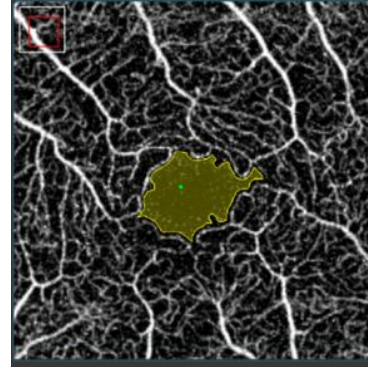
# New streamlining OCTA data interpretation

- ▶ Detailed view for Single visit
- ▶ Both (Assymetry) report
- ▶ Comparison of 2 visits
- ▶ Progression of 4 visits



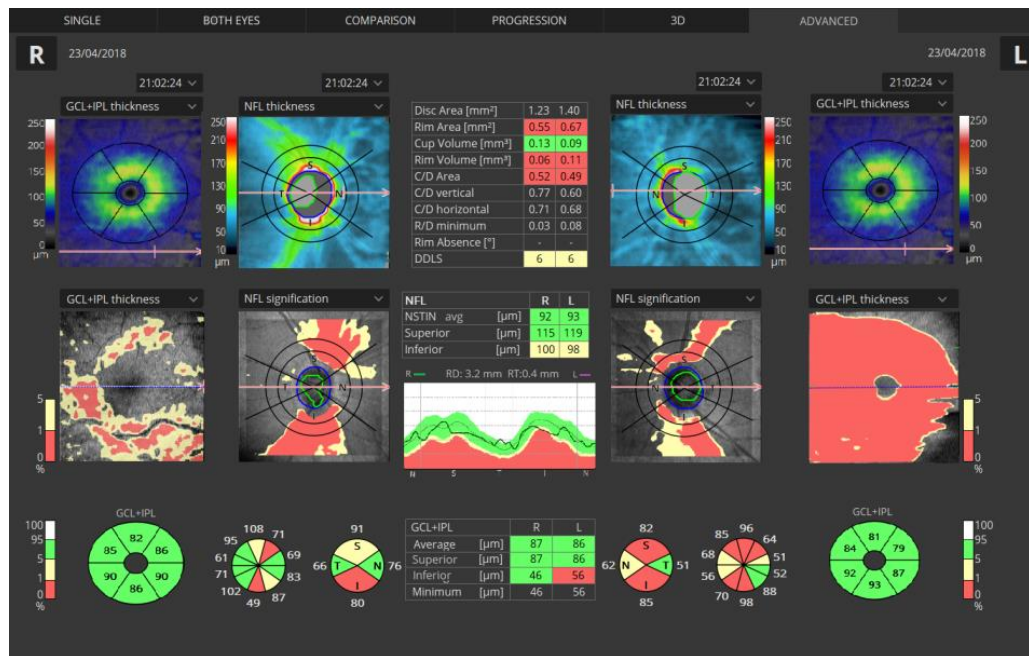
## Objectively assess changes over time

- ▶ FAZ - Analysed scan width from 3 mm to 6 mm!
  - Area [ $\text{mm}^2$ ]
  - Circularity [ $\text{mm}^2$ ]
  - Circumference [ $\text{mm}^2$ ]
  
- ▶ VFA – Vascular Flow Area
  - Area [ $\text{mm}^2$ ]
  - Flow Area [ $\text{mm}^2$ ]




## ▶ New Glaucoma Report

Ganglion Cells + RNFL&ONH



# Corneal Topography

*T-OCT™ is world's first implementation of a detailed Corneal topography performed by a posterior dedicated OCT.*

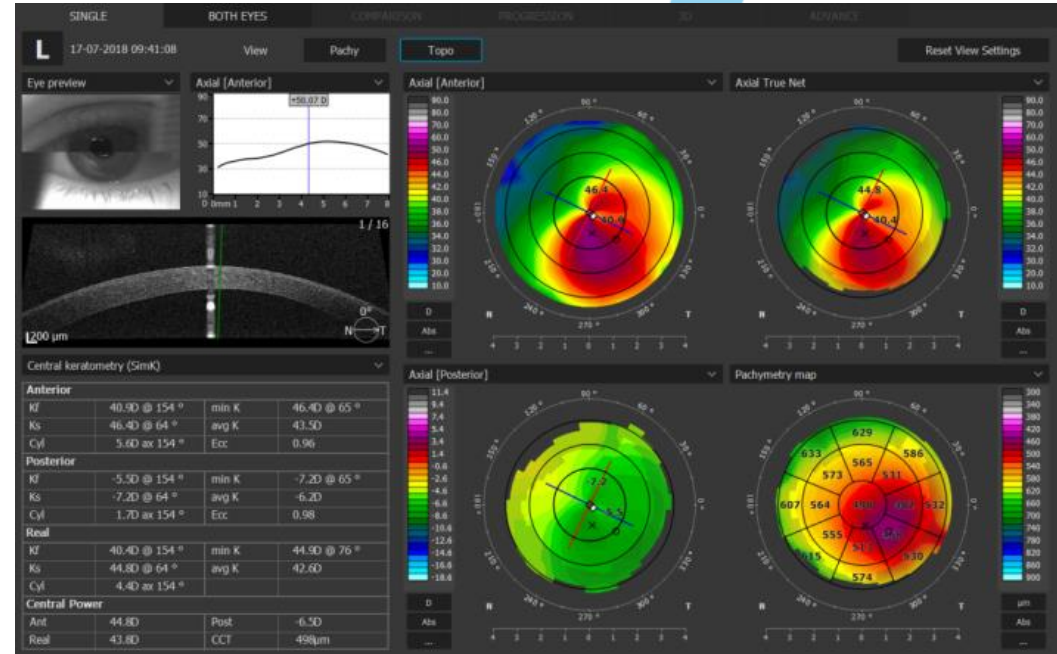
- ▶ New dedicated scan program: Topo 
- ▶ Automatic examination: A-Alignment, A-Focus and C-gate mode
- ▶ Topographic analysis of Anterior & Posterior surface, Real values
- ▶ Real topography analysis base on both surfaces and local cornea thickness

## Topography analysis

▶ 14 maps

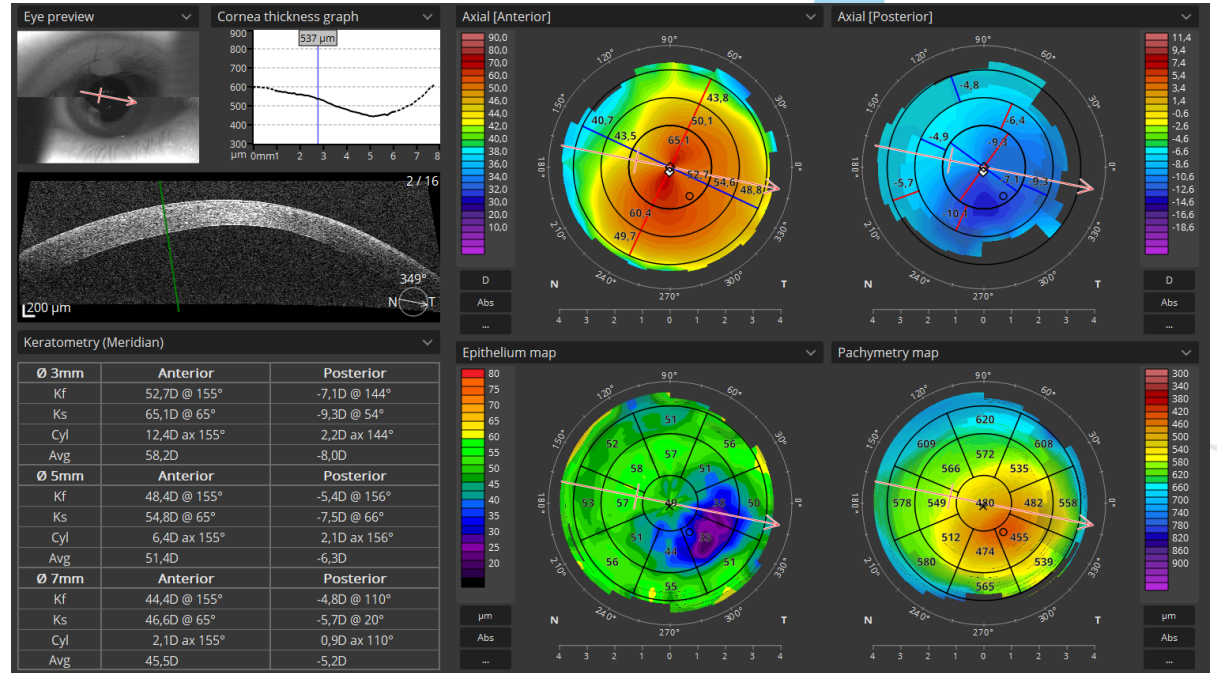
- Axial [Anterior]
- Axial [Posterior]
- Axial True Net
- Tangential [Anterior]
- Tangential [Posterior]
- Refractive Power [Anterior]
- Refractive Power [Kerato]
- Refractive Power [Posterior]
- Net Map
- Elevation [Anterior]
- Elevation [Posterior]
- Height
- Pachymetry
- Epithelium thickness

- ▶ Posterior, Anterior, Real K's values
- ▶ Central Sim K, Meridian K's, Emi-Meridian K's
- ▶ Real Central Corneal Power = known also as True Cornea Power



## Keratoconus analysis:

- ▶ Based on KPI
- ▶ Support by Epithelial mapping

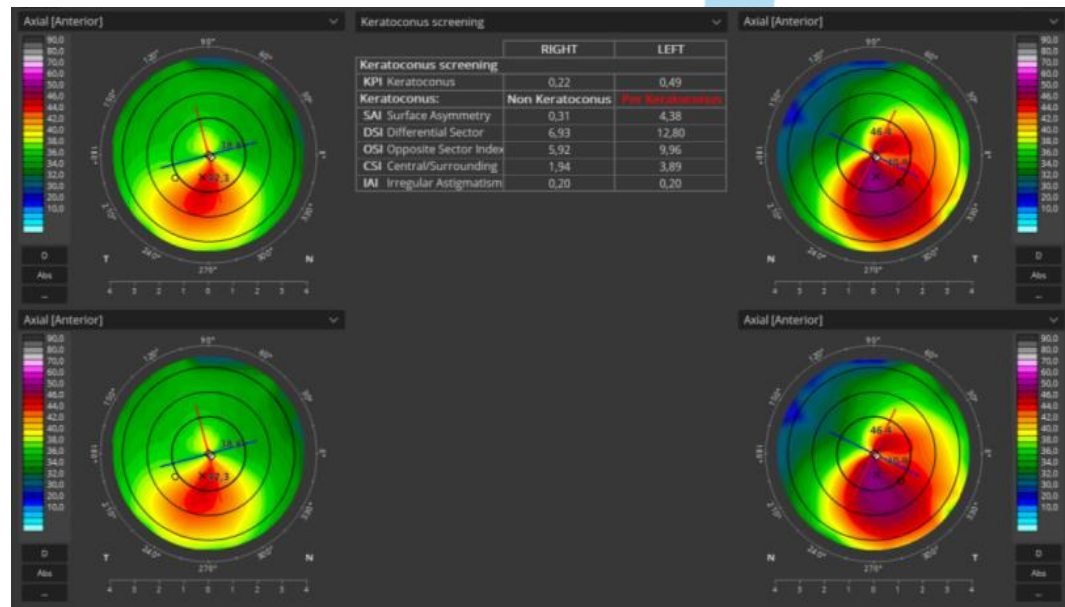


## Keratoconus Prediction Index\* Analysed indexes

- ▶ KPI - Keratoconus Prediction Index
- ▶ SAI – Surface Assymetry Index
- ▶ DSI – Differential Sector Index
- ▶ OSI – Opposite Sector Index
- ▶ CSI – Central Surrounding Index
- ▶ IAI – Irregular Asitgmatism Index

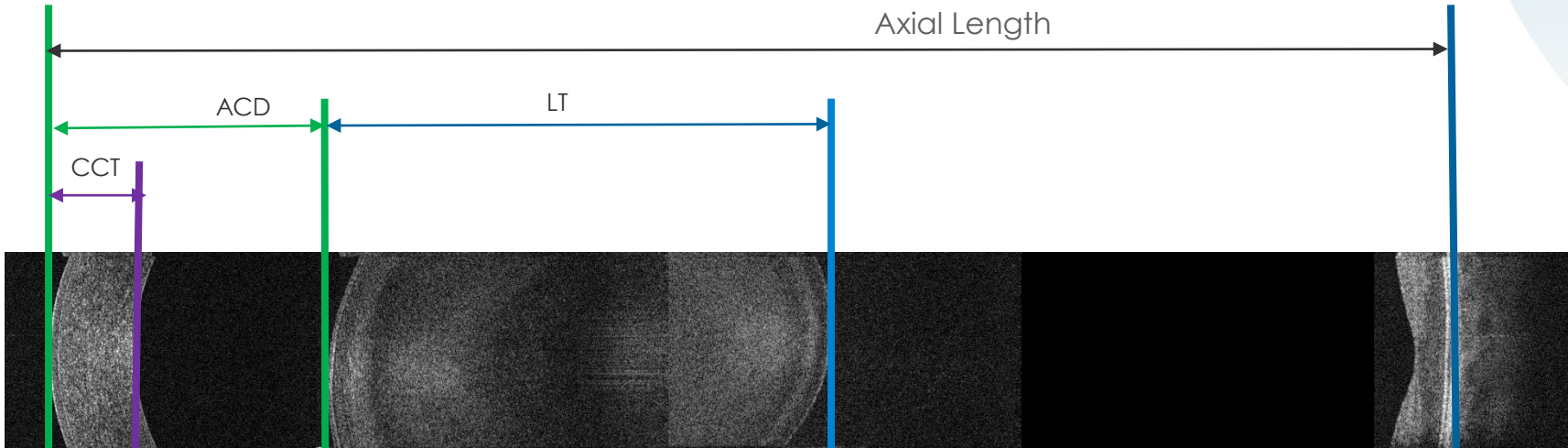
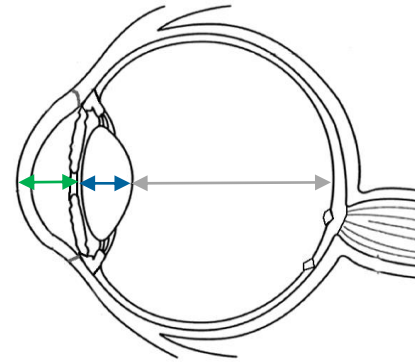
## Classification

- ▶ Non-keratoconus pattern
- ▶ Central steepening keratoconus
- ▶ Peripheral steepening keratoconus



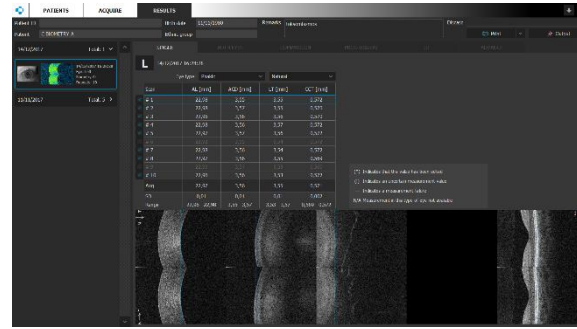
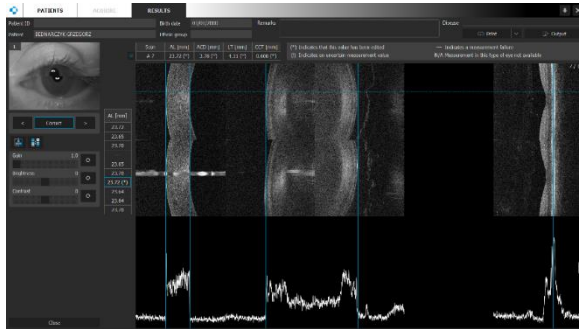
## ► Biometrical measurement

- AL      Axial Length
- CCT      Cornea thickness
- ACD      Anterior chamber depth
- LT      Lens thickness





## ► Biometrical measurement

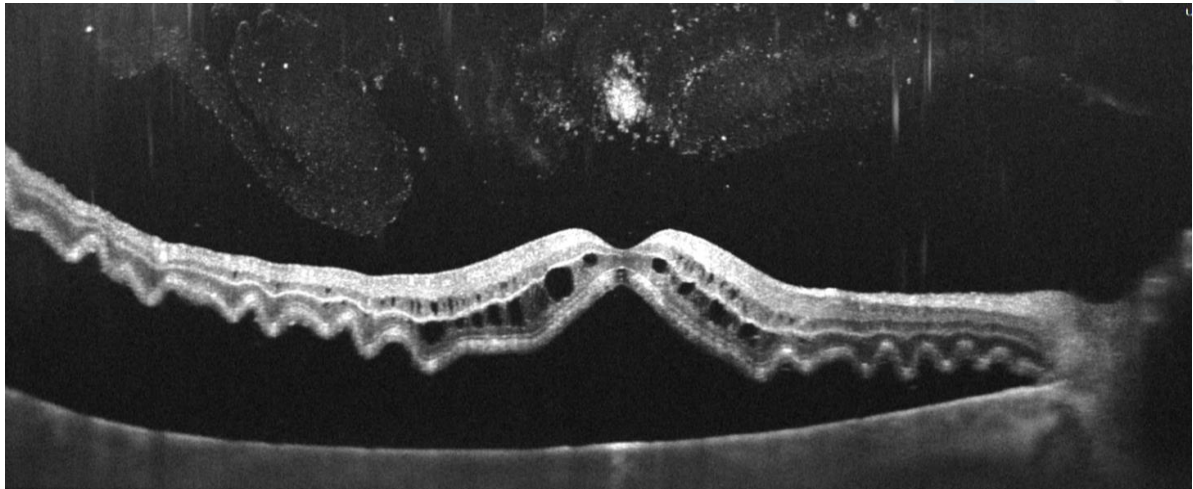
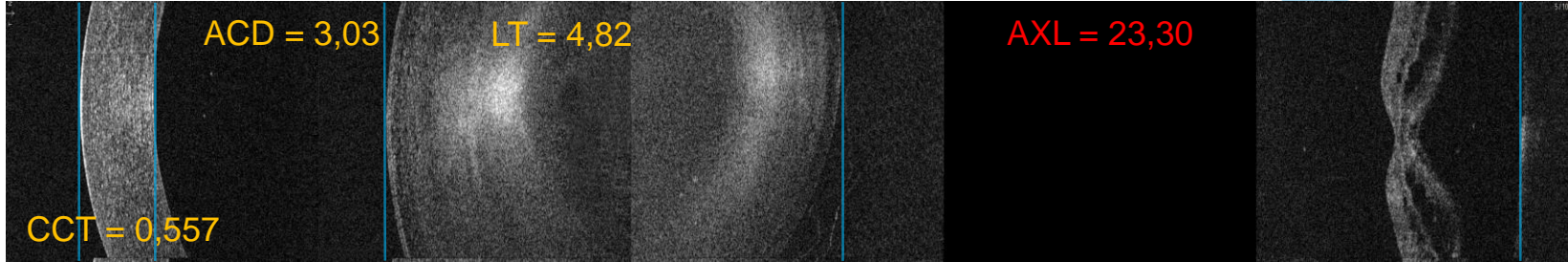


## ► Benefits

- Extends the use of Standard OCT
- OCT provides exact measured boundaries of ocular structures
- Manual correction possible compared to gold standard
- More reliable RNFL data measurement in long eyes
- Allows high myopic eyes monitoring
- New view for IOL implantation

► Easy assesment in non typical cases

Macular abnormalities



**Thank you for your attention!**

