

Specifications

OCT Model: BM-400K	
OCT optical source	Swept Source
Center wavelength	1060nm
OCT B-scan	
Scan speed	400,000 A-scans/sec
Max. Length (posterior)	24mm
Max. Length (anterior)	24mm
Scan depth (posterior)	6mm
Scan depth (anterior)	6mm
Refractive adjustment range	-35D to +45D
Axial optical resolution	≤6μm
Axial best digital resolution	1.9μm
Transverse optical resolution	10μm
Fundus Imaging	
Methodology	Scanning Laser Ophthalmoscopy (SLO)
SLO wavelength	850nm
SLO FOV	60° ×60°
Minimum pupil diameter	2.0mm
Eye tracking speed	128Hz
OCT Angiography	
Max. Single scan size (anterior)	18mm×18mm
Max. Single scan size (posterior)	24mm×20mm
Maximum resolution (single scan)	1536×1280
Max. scan size (montage)	42mm×40mm
Software Functions	
Anterior segment (AS) quantification	✓
AS panoramic parameters	✓
Thickness/volumn measurement (retina)	✓
Thickness/volumn measurement (choroid)	✓
Glaucoma analysis (GMA, ONH, etc.)	✓
Blood flow quantification (retina)	✓
Blood flow quantification (choroid)	✓
Blood flow quantification (optic disk)	✓
Blood flow quantification (AS)	✓
Posterior curvature	✓
3D structure	✓
3D vessel	✓



BMizar

400kHz | Full Range SS-OCT/OCTA



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CE Marking under the EU MDR

BMizar

400kHz Full-range Ultra-Wide Field Swept-Source OCT/OCTA



The World's First 400kHz
Full-range Ultra-Wide Field Swept-Source OCT

Self-Innovated
Homemade component parts

Ten Billion Voxels
Ultra- High Resolution

Proprietary Choroid
OCTA Algorithms

7-15 seconds High Speed
Ultra-Wide Field OCTA Acquisition

All-Slabs and All-Sizes
Quantification Analysis

No additional lens
Animal scan

Multi Platforms Imaging
Joint Diagnosis

400kHz
24x20mm

Ultra-Wide Field OCTA
Self-Innovated High-Speed
Acquisition Card

10 Billion Voxels

Ultra-High Resolution
1536x1280

Brand-New Choroid
OCT Angiography

BMizar

Development History of OCT Technology

OCT technology is a paradigm of medicine, engineering integration and continuous innovation. Full-range swept-source OCT technology reveals significant advantages in multiple dimensions such as scanning speed, imaging depth, and visualizing field, etc.

1996

Time-Domain OCT
(Linear Scan)

<1K A-scan/sec
Single B-scan
2mm Depth

2002

Time-Domain OCT
(Resonance Scan)

<10K A-scan/sec
HD Single B-scan
2mm Depth

2006

Spectral-Domain OCT
(Frequency-Domain OCT)

20-100K A-scan/sec
3D-OCT, OCTA
1.8-3mm Depth

2016

Swept Source OCT

100K A-scan/sec
Wide-Field OCTA
2-3mm Depth

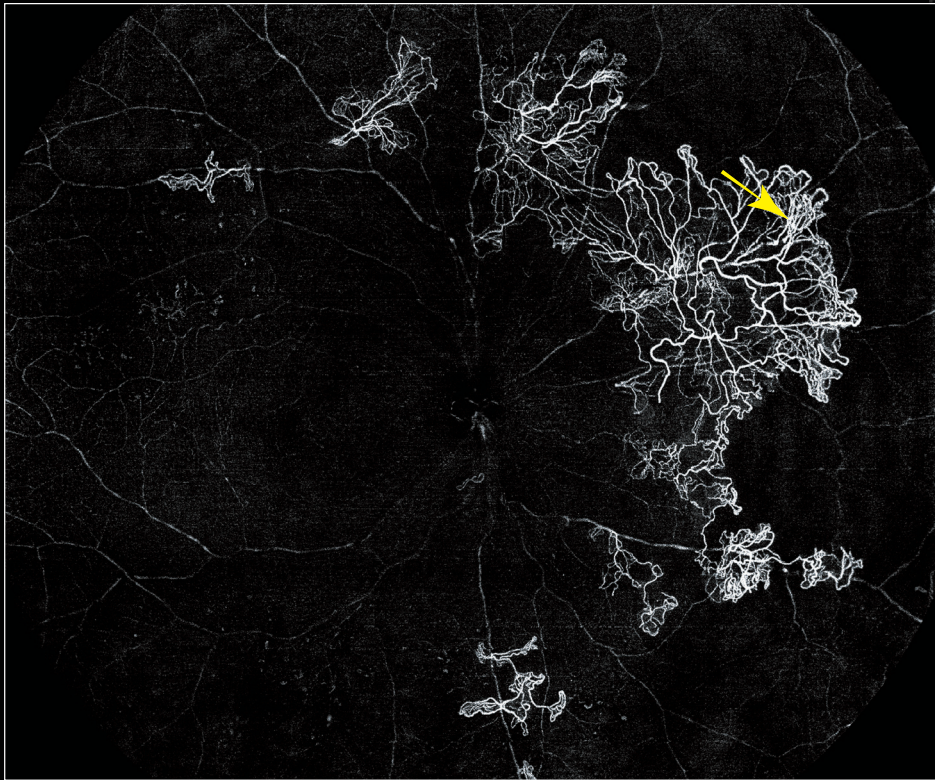
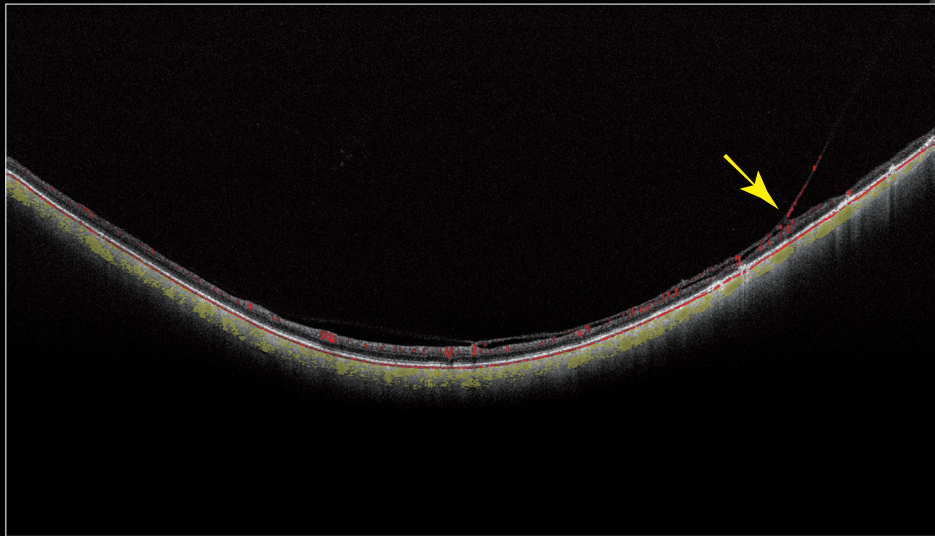
2022

Full-range Swept Source OCT

100-400K A-scan/sec
Ultra-wide-field OCTA
6-12mm Depth
16-24mm length

Find More Details with Single Capture

- 10 Billion maximal voxels
- 24X20mm ultra-wide-field OCTA
- 1536x1280 ultra-high resolution
- Fast aquisition speed (7-15 seconds)

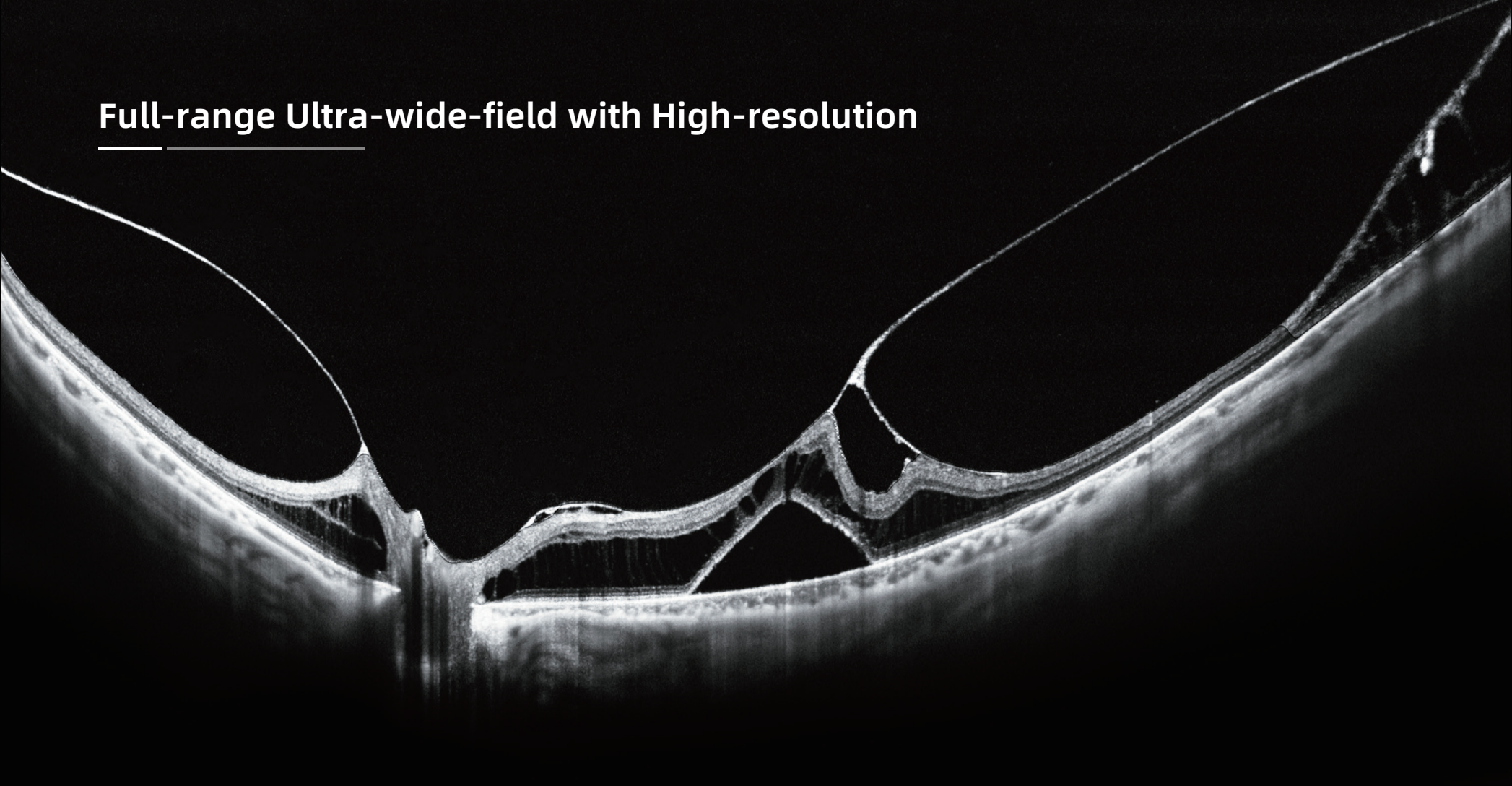


Neovascular membrane (vitreal slab)



Proliferative diabetic retinopathy (PDR)

Full-range Ultra-wide-field with High-resolution

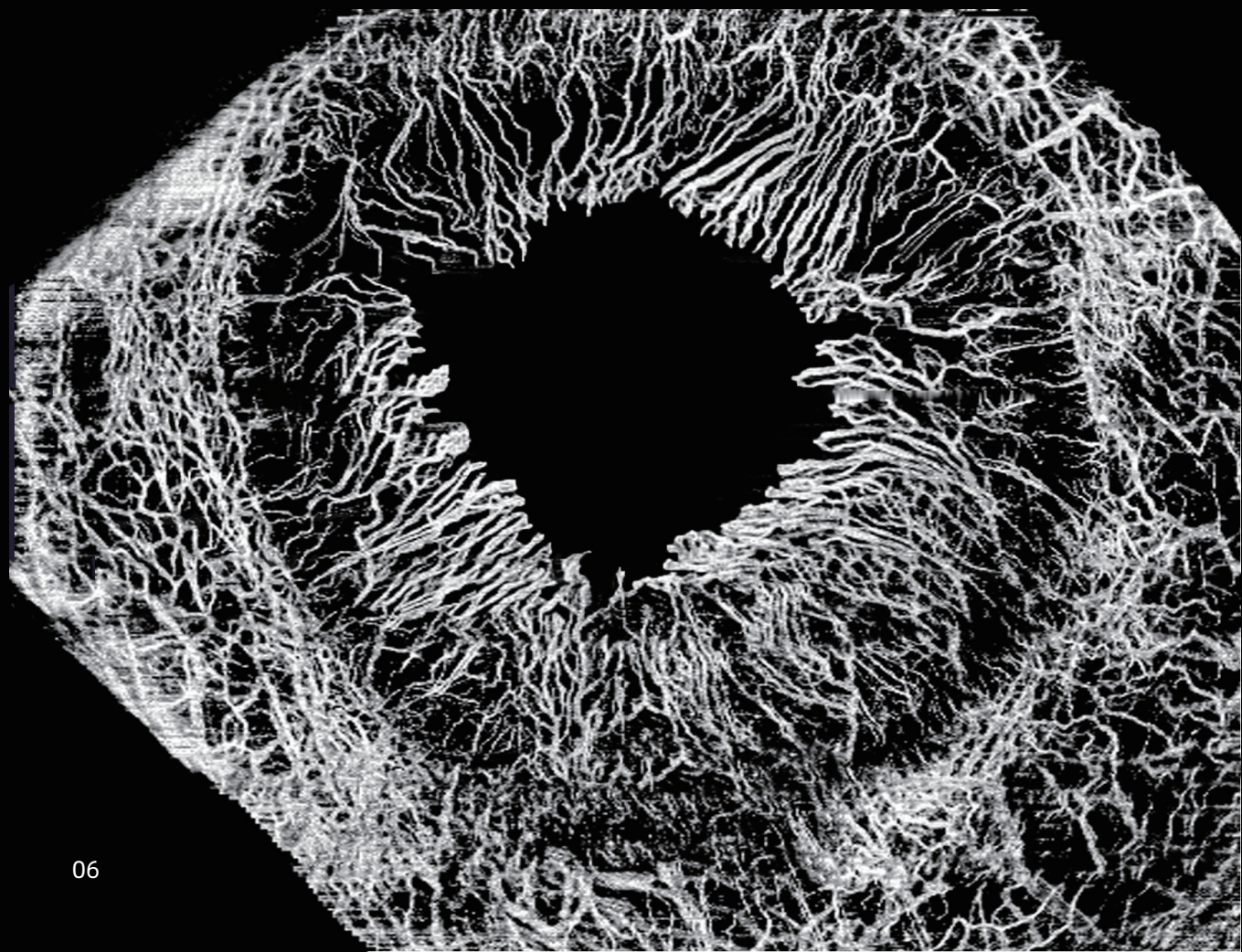


24mm length, 6mm scan depth | Vitreomacular traction (VMT)

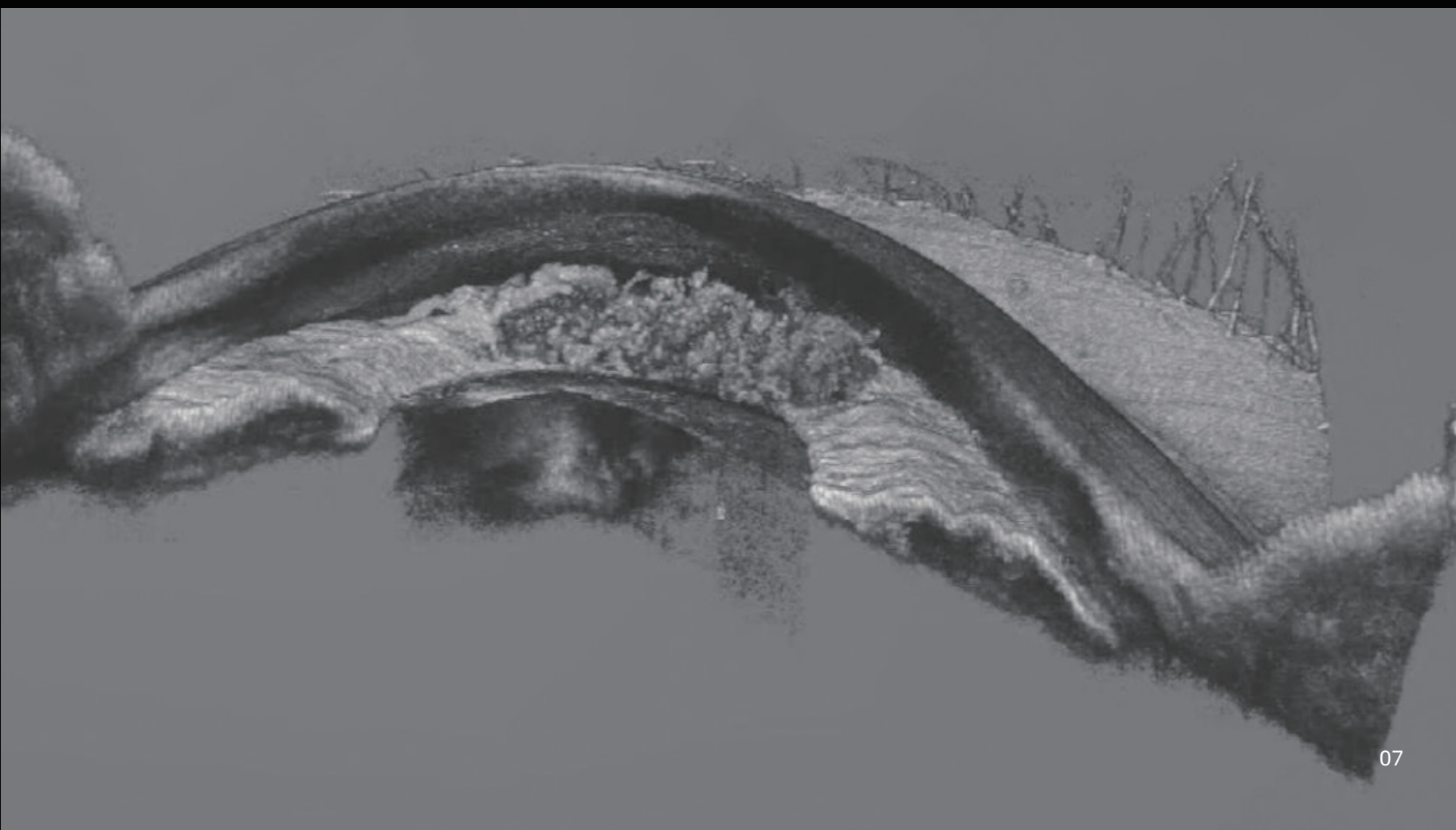


SLO fundus image | Vitreomacular traction (VMT) (same patient with left)

AS OCTA | Corneal neovascularization

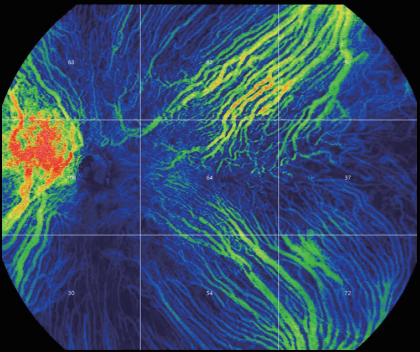
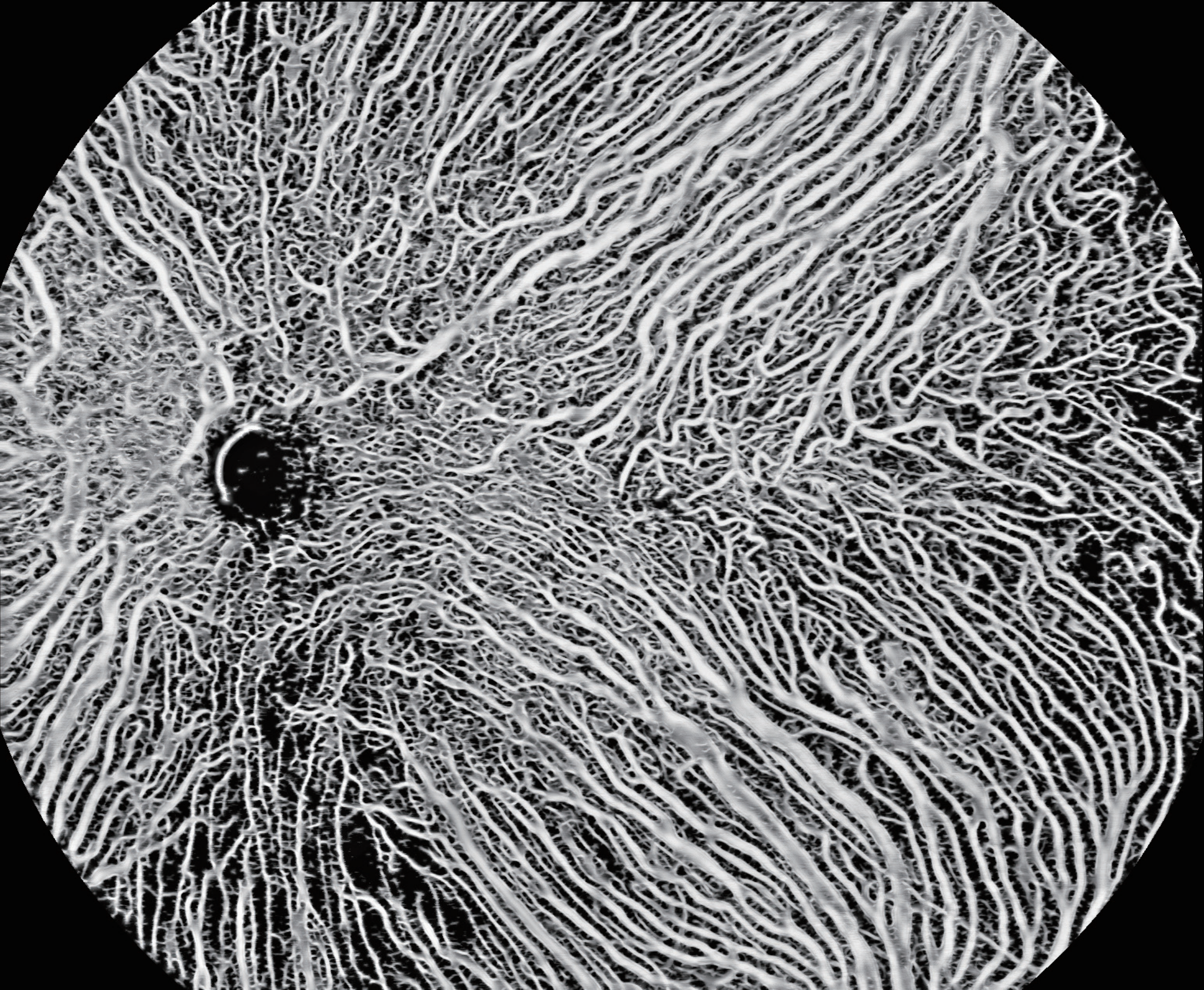


AS 3D reconstruction | Iridoschisis

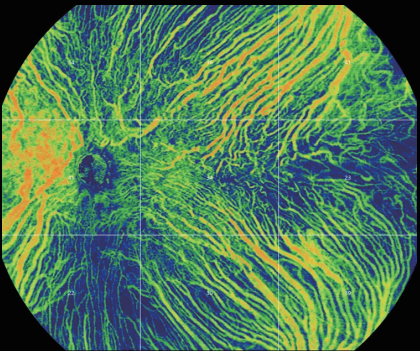


Reveal the Undiscovered

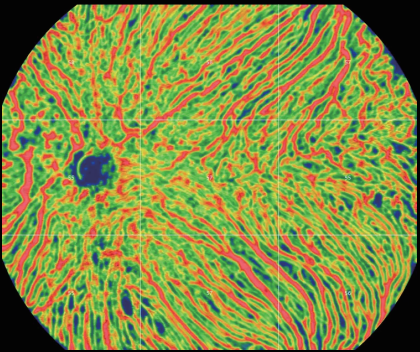
Ultra-wide-field OCTA for Choroid with quantification parameters



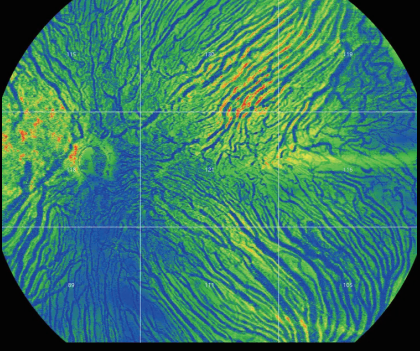
Choroid Vessel Volume ratio (CVV/a)



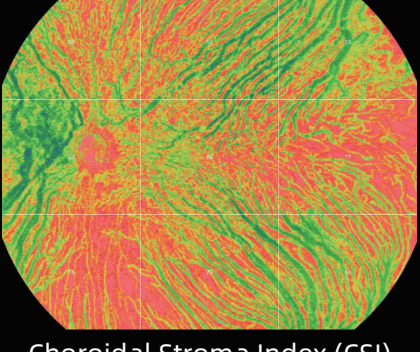
Choroid Vessel Index (3D-CVI)



Choroid Vessel Density (2D)



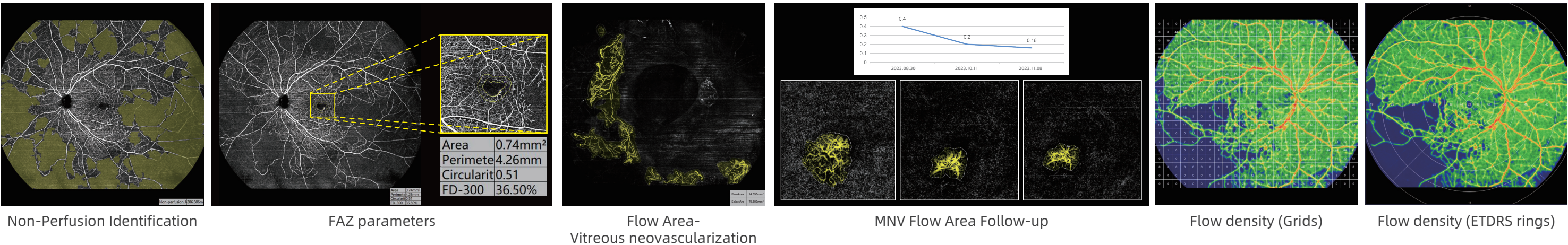
Choroidal Stroma Volume ratio (CSV/a)



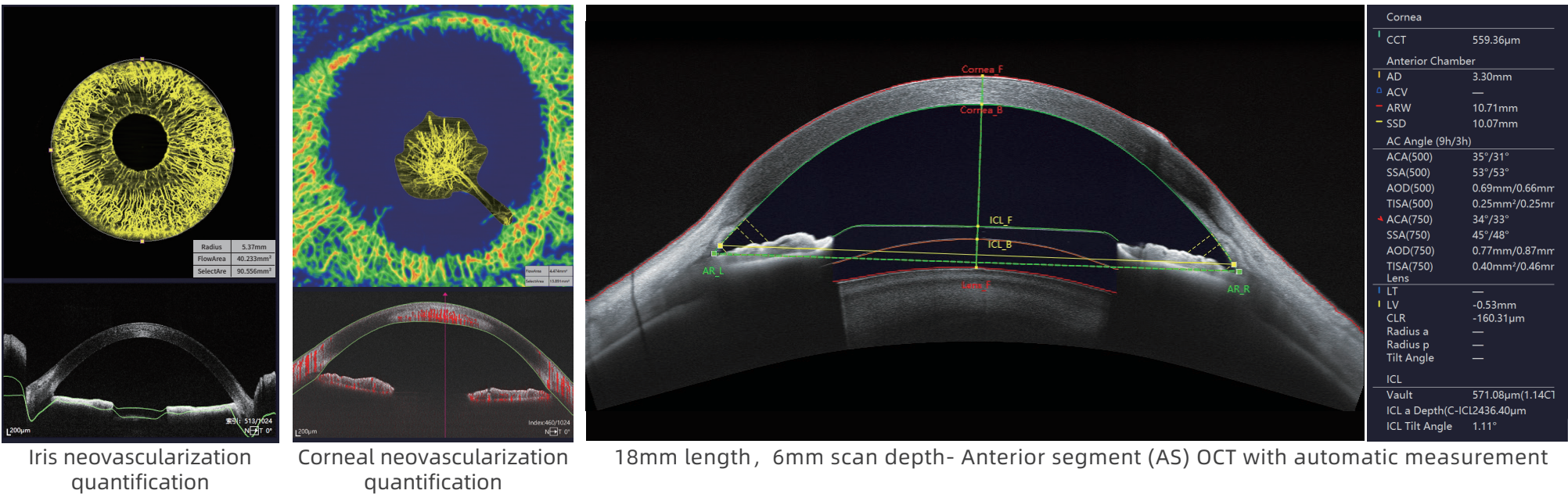
Choroidal Stroma Index (CSI)

Comprehensive Quantitative Analysis

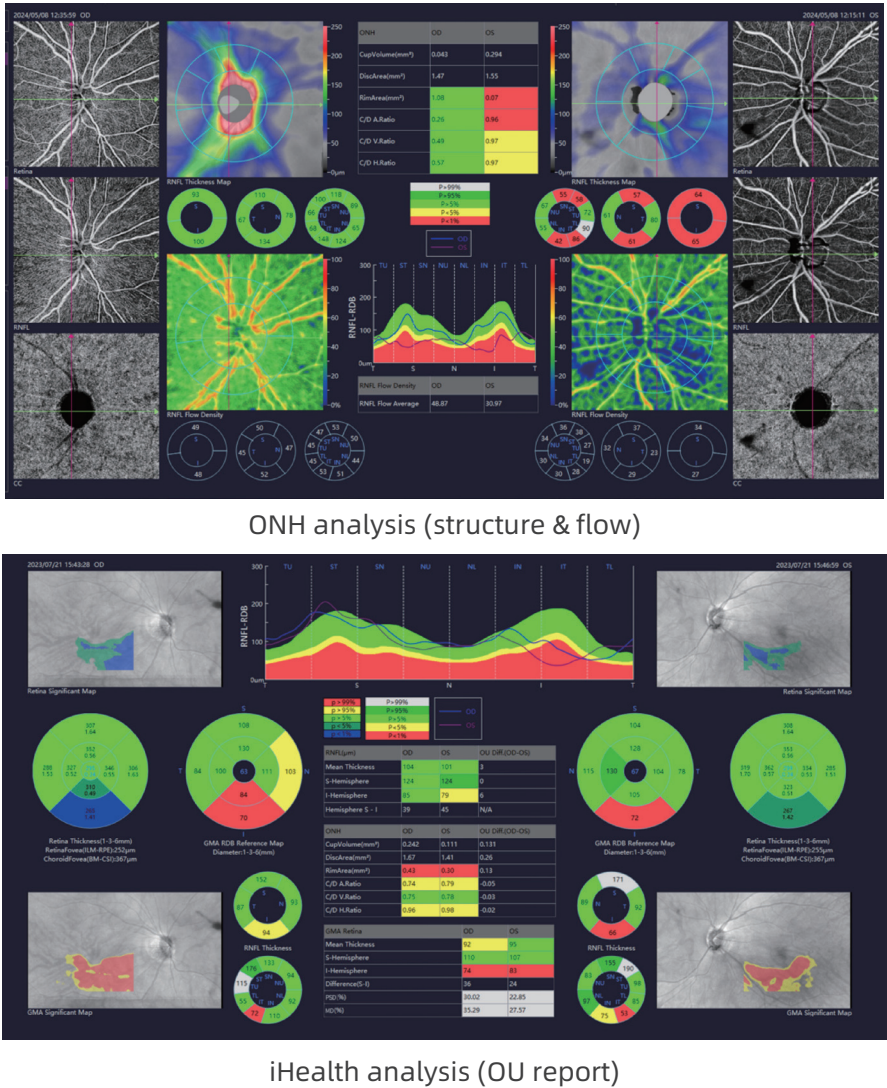
Retinal blood flow with quantification



AS OCTA with quantization and parameters



Comprehensive glaucoma analysis



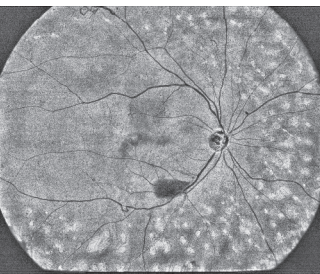
Corneal pachymetry, epithelium thickness, stroma thickness, etc.

Innovation.

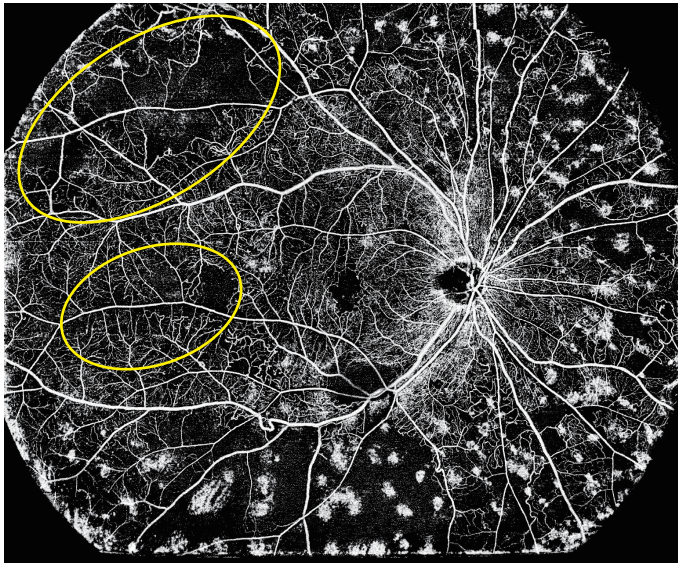
iSpot

Precision and convenient OCTA-guided photocoagulation.

Superficial retina OCTA image detects NPA



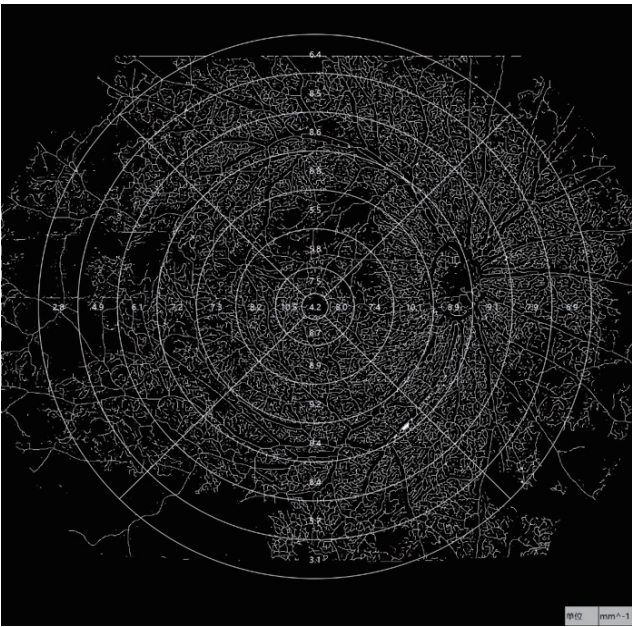
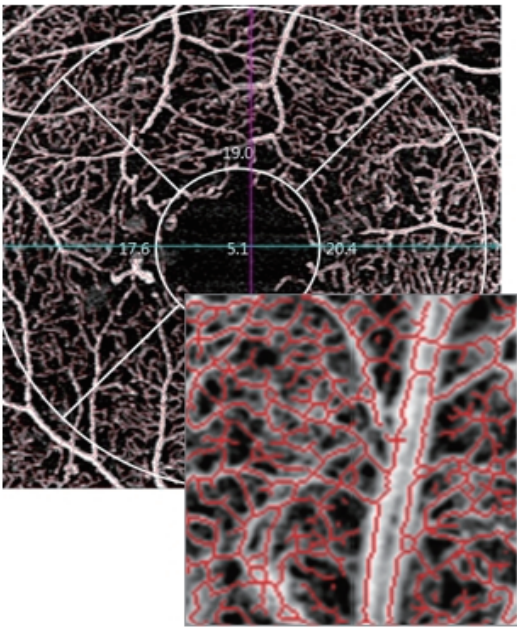
En face image of outer retina shows laser spots



Non-perfusion areas with insufficient laser are clearly identified

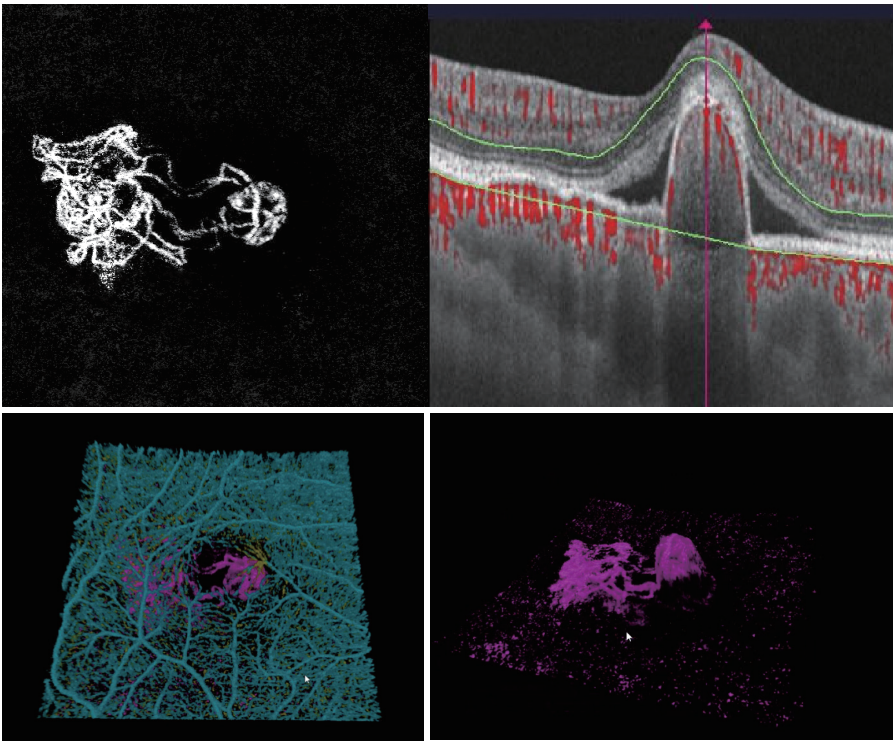
Vessel Skeleton Density (VSD)

The ratio of the linear length in the region to the area of the region(mm^{-1}) after the vessels are skeletalized. More sensitive to changes in the vessels number and less affected by vessel diameter.



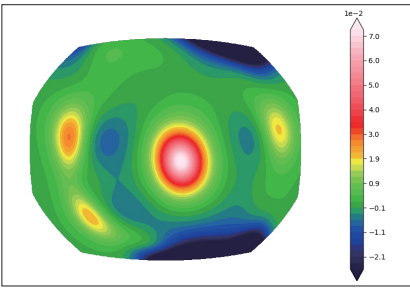
3D OCTA

Visualization vessels in 3D reconstruction for customized layers.

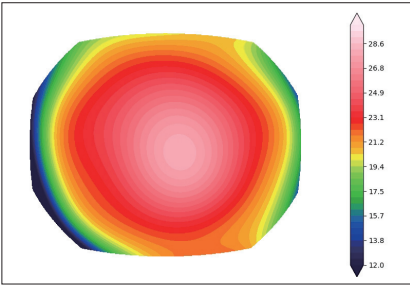


Retinal Morphology Trio

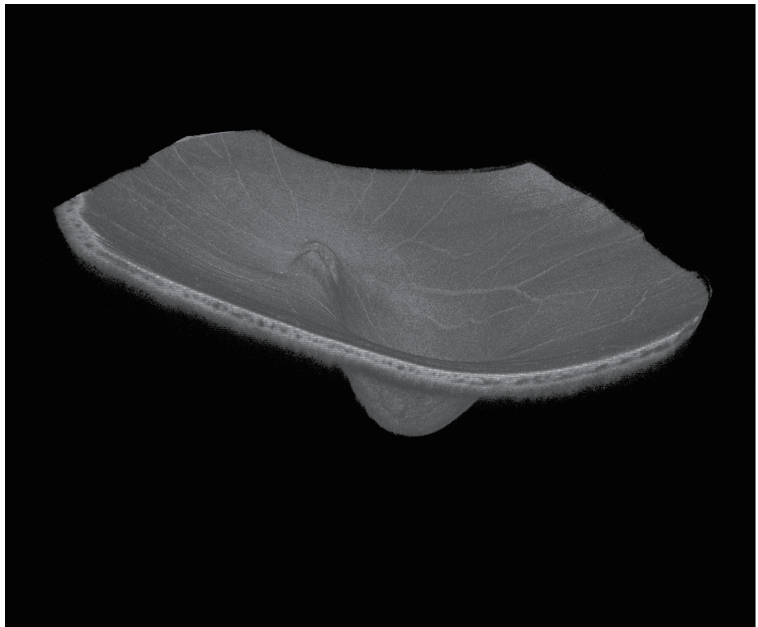
Restore the true shape of retina with built-in advanced algorithm based on 3D structure.



Curvature map



Contour map



True 3D shape

Exploration.

Animal Study

No extra lens needed

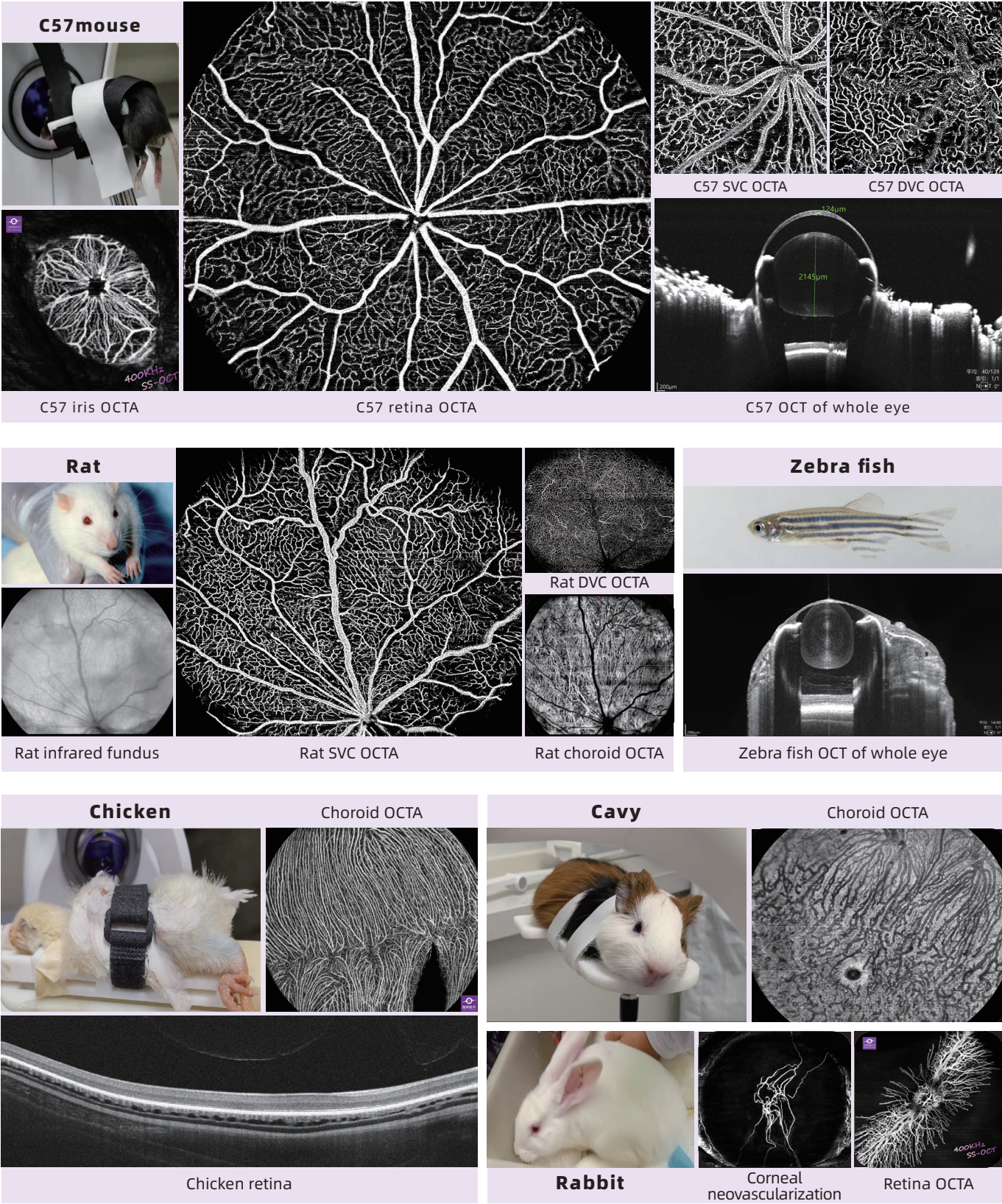
Aquisition time less than 12s

with comprehensive quantifications

Non-contact, non-invasive to animal

with automatic retinal segmentation

with custom measurement and data export



Multi-Platforms Imaging Management

Multi-Platforms Imaging: OCT, OCTA, color fundus (CF), fundus fluorescein angiography (FFA), indocyanine green (ICG), fundus autofluorescence (FAF), optical coherence biometer (OCB), surgical microscope, and other imaging platforms' combinations.

Big Data Fusion: Accurate image matching, precise quantification, support electronic medical record (EMR) systems and medical image formats (DICOM etc.).

Joint Accurate Diagnosis: Improve the sensitivity and specificity of diagnosis, evaluate eye diseases more comprehensively and precisely, improve efficiency and accuracy, and provide patients with better diagnosis and treatment experience.

