

## Specifications

OCT Model	BM-400K Ultra	BM-400K Max
OCT optical source	Swept Source	
Center wavelength	1060nm	
<b>OCT B-scan</b>		
Scan speed	400,000 A-scans/sec	
Max. Length (posterior)	30mm	26mm
Max. Length (anterior)	24mm	
Scan depth (posterior)	12mm	9mm
Scan depth (anterior)	12mm	9mm
Refractive adjustment range	-35D to +45D	
Axial optical resolution	≤6µm	
Axial best digital resolution	1.9µm	
Transverse optical resolution	10µm	
<b>Fundus Imaging</b>		
Methodology	Scanning Laser Ophthalmoscopy (SLO)	
SLO wavelength	850nm	
SLO FOV	107.25°	90°
Minimum pupil diameter	2.0mm	
Eye tracking speed	128Hz	
<b>OCT Angiography</b>		
Max. Single scan size (anterior)	24mm×24mm	
Max. Single scan size (posterior)	30mm×25mm	26mm×21mm
Maximum resolution (single scan)	1536×1280	
Max. scan size (montage)	≈44mm×42mm	≈42mm×40mm
<b>Software Functions</b>		
Anterior segment (AS) quantification	<input checked="" type="checkbox"/>	
AS panoramic parameters	<input checked="" type="checkbox"/>	
Thickness/volumn measurement (retina)	<input checked="" type="checkbox"/>	
Thickness/volumn measurement (choroid)	<input checked="" type="checkbox"/>	
Glaucoma analysis (GMA, ONH, etc.)	<input checked="" type="checkbox"/>	
Blood flow quantification (retina)	<input checked="" type="checkbox"/>	
Blood flow quantification (choroid)	<input checked="" type="checkbox"/>	
Blood flow quantification (optic disk)	<input checked="" type="checkbox"/>	
Blood flow quantification (AS)	<input checked="" type="checkbox"/>	
Posterior curvature	<input checked="" type="checkbox"/>	
3D structure	<input checked="" type="checkbox"/>	
3D vessel	<input checked="" type="checkbox"/>	



# BMizar

400kHz | Full Range SS-OCT/OCTA



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TPGY01-BM-400k-S-20260420

CE Marking under the EU MDR



# BMizar

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



**400kHz**  
30x25mm

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

**10 Billion Voxels**

*Ultra-High Resolution  
1536x1280*

*Proprietary Choroid  
OCT Angiography*

# BMizar

**400kHz Ultra-WideField  
Full-range Swept-Source OCT**

**Self-Innovated**  
Homemade component parts

**Ten Billion Voxels**  
Ultra- High Resolution

**Proprietary Choroid  
OCTA Algorithms**

**7-15 seconds High Speed**  
Ultra-WideField OCTA Acquisition

**All-Slabs and All-Sizes**  
Quantification Analysis

**No additional lens**  
Animal scan

**Multi Platforms Imaging**  
Joint Diagnosis

# 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

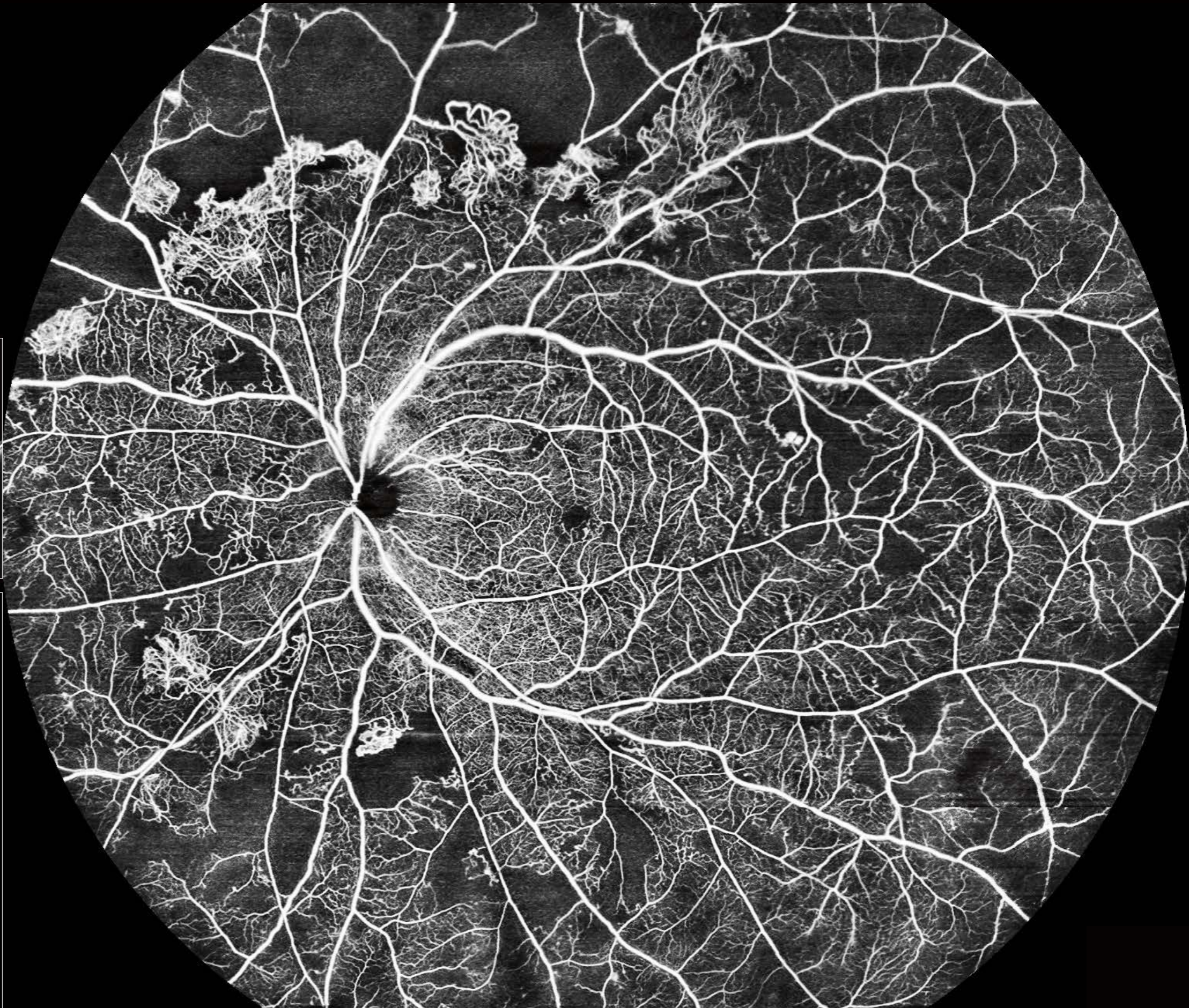
■ 30x25mm ultra-wide-field OCTA

■ 1536x1280 ultra-high resolution

■ Fast acquisition speed (7-15 seconds)



Neovascular membrane (vitreous slab)

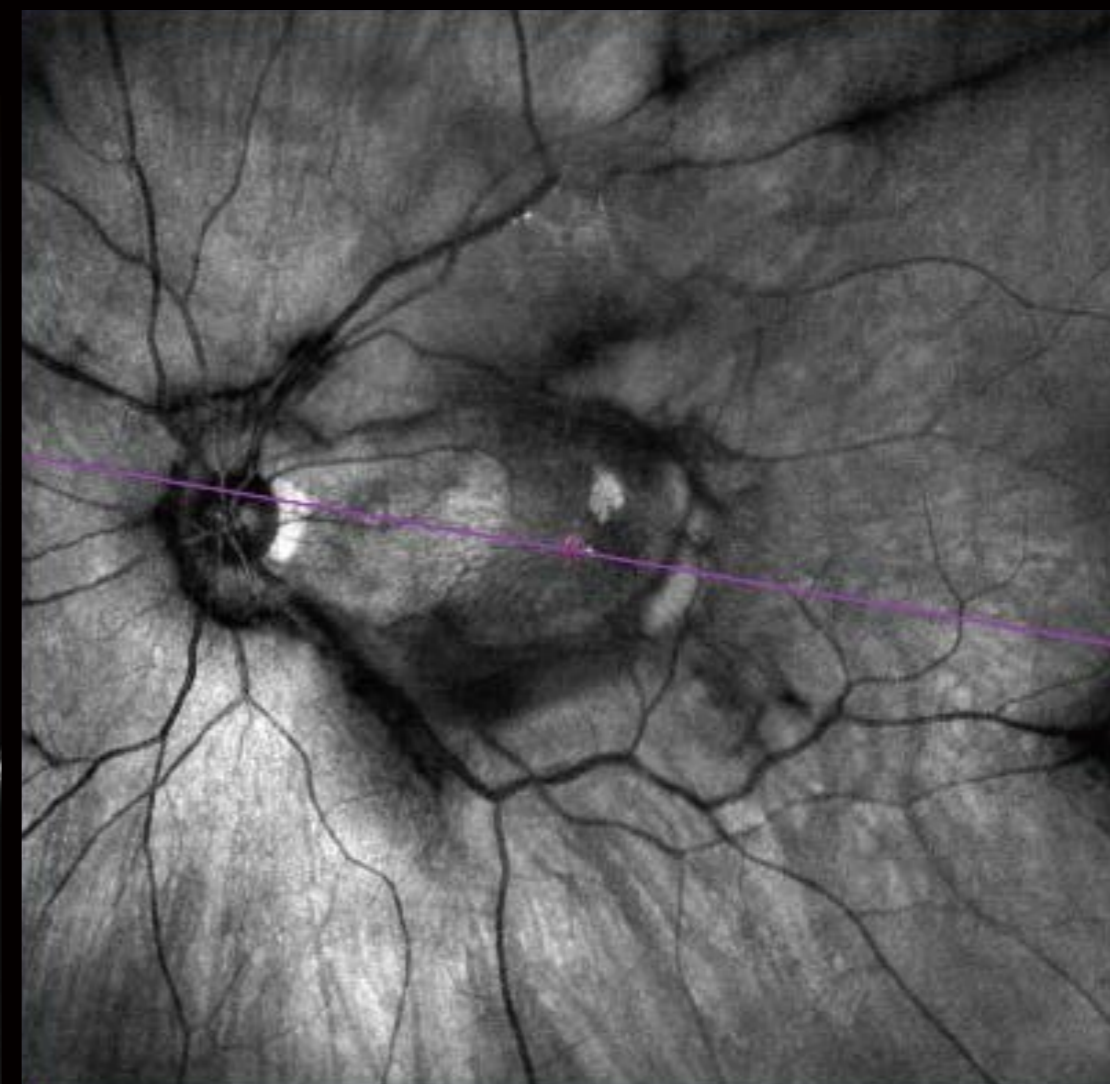


Proliferative diabetic retinopathy (PDR)

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

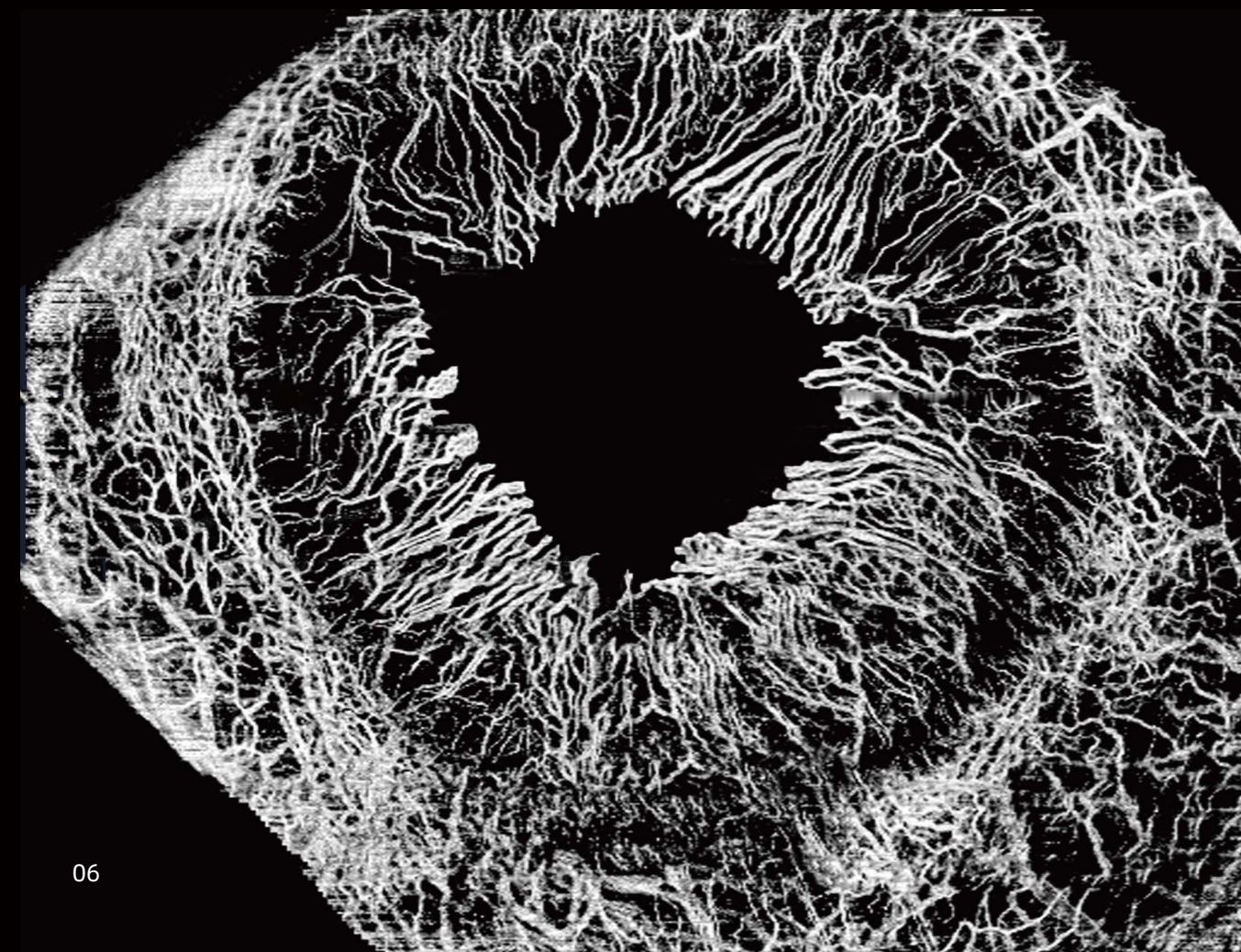


30mm length, 12mm depth | Retinal Detachment

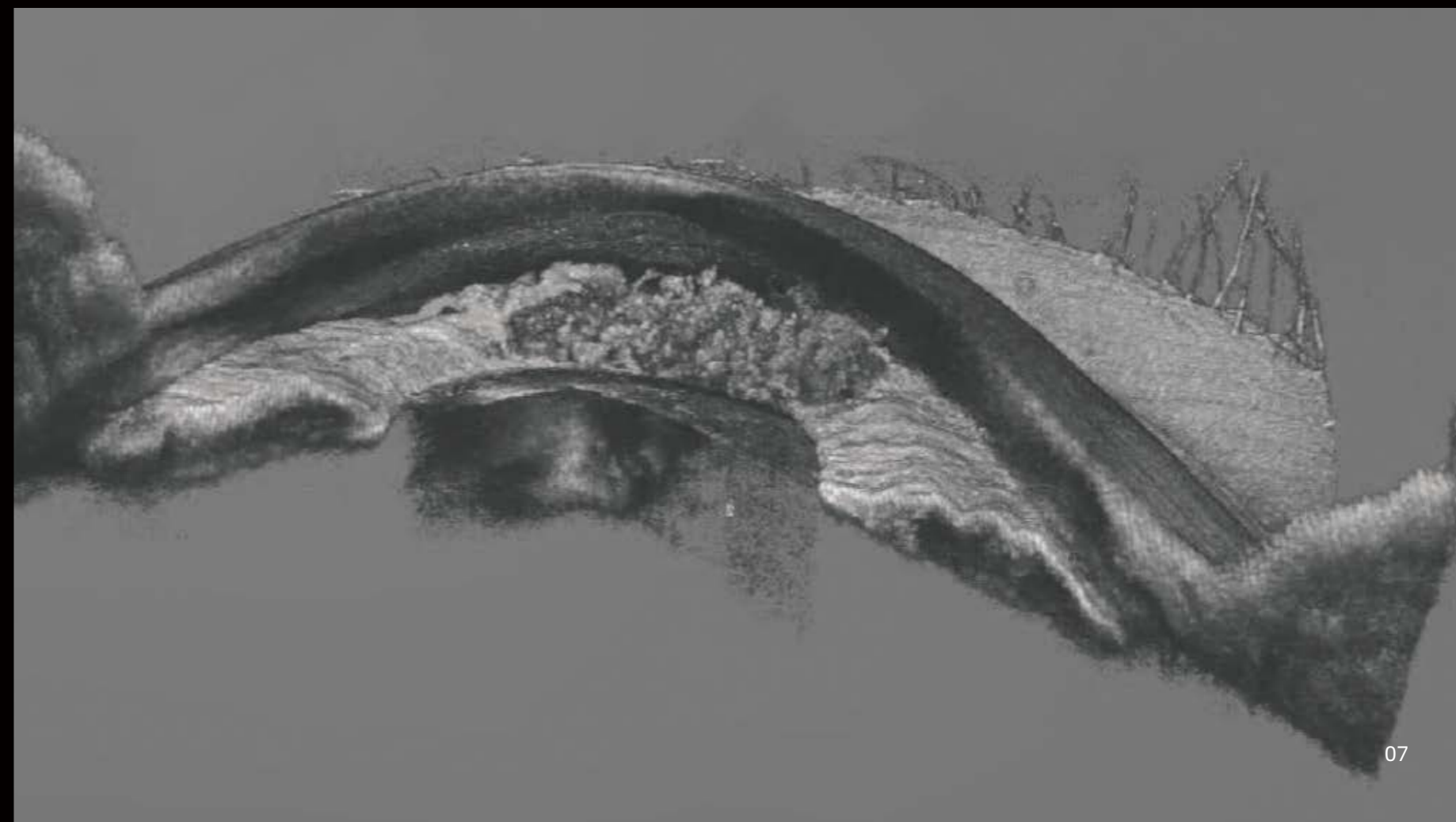


SLO fundus image | Vitreomacular traction (VMT)

AS OCTA | Corneal neovascularization

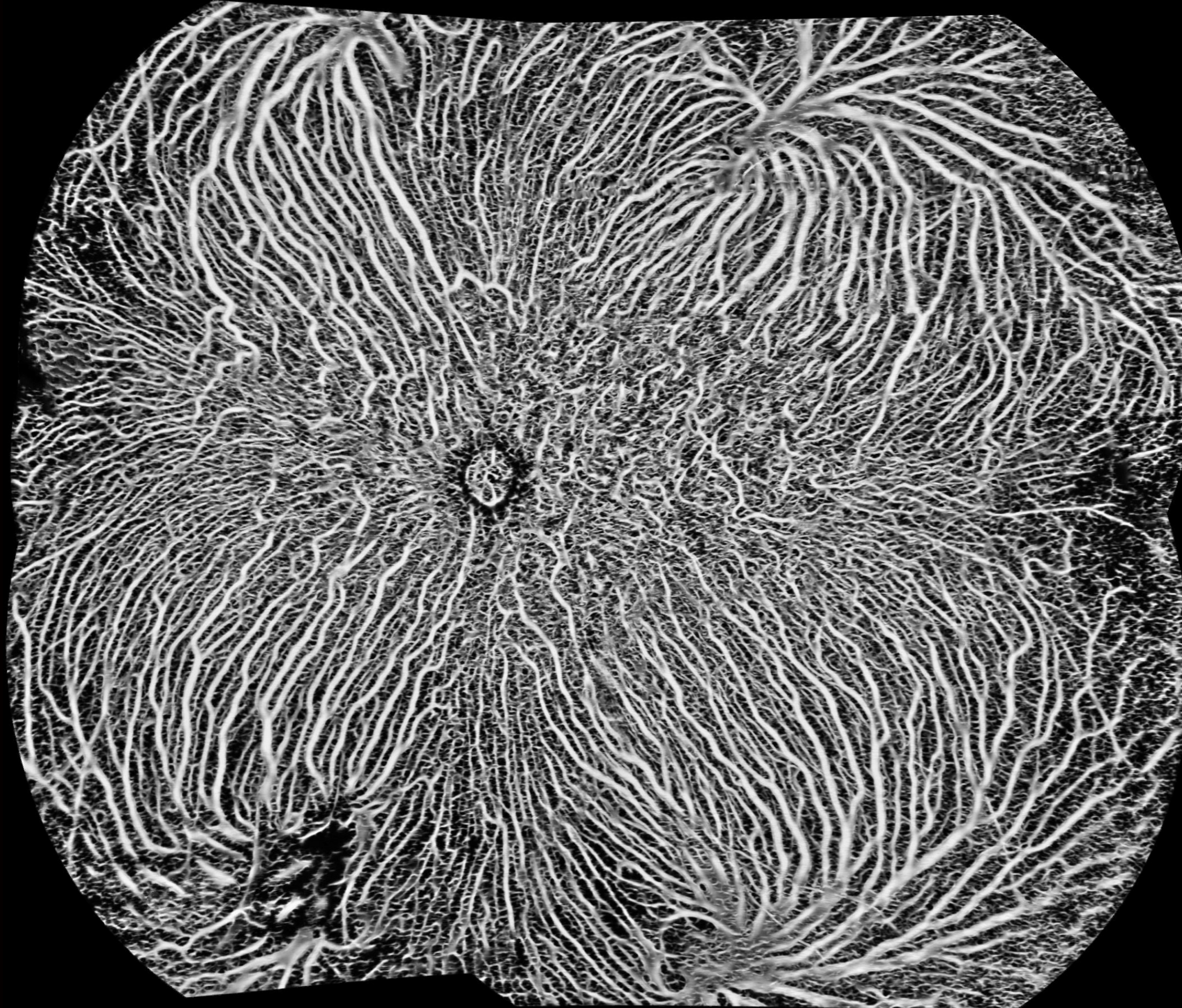


AS 3D reconstruction | Iridoschisis

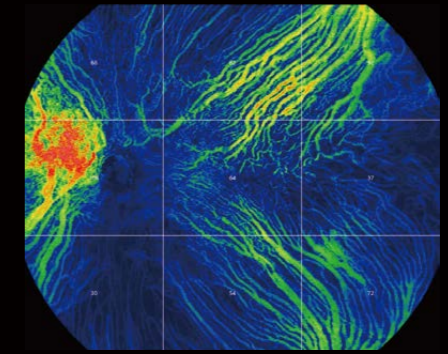


# Reveal the Undiscovered

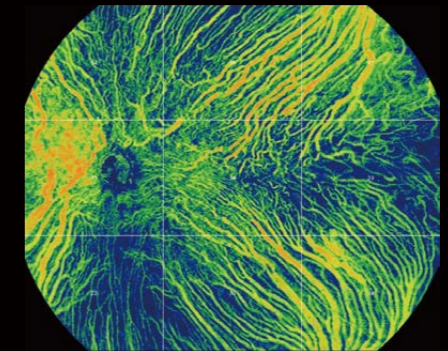
Ultra-wide-field OCTA for Choroid with quantification parameters



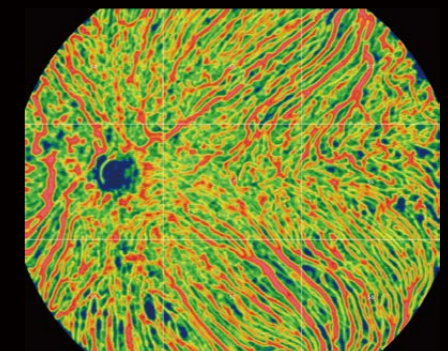
Montage of 4 30x25 Choroid



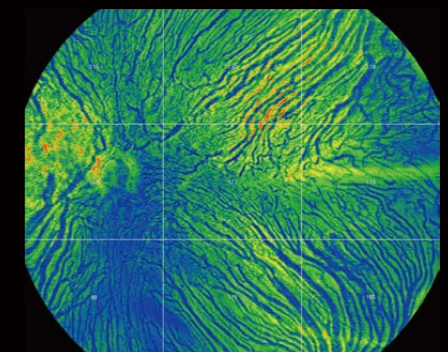
Choroid Vessel Volume ratio (CVV/a)



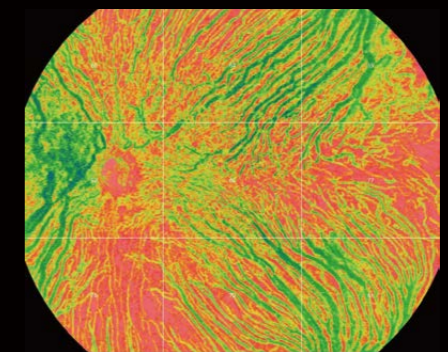
Choroid Vessel Index (3D-CVI)



Choroid Vessel Density (2D)



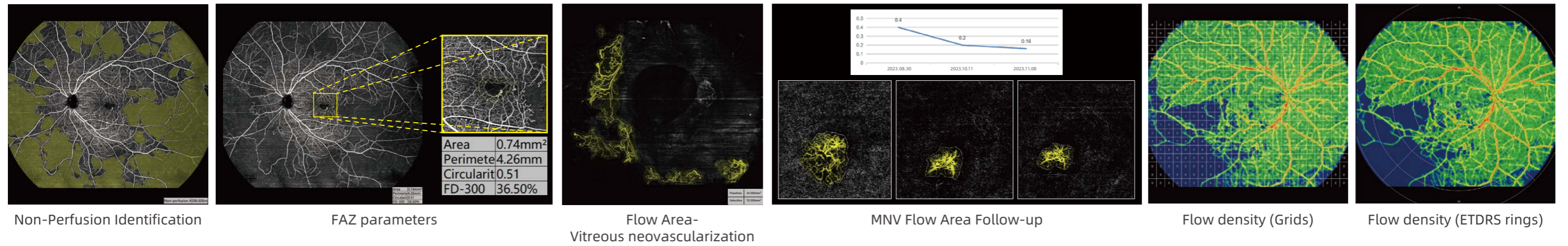
Choroidal Stroma Volume ratio (CSV/a)



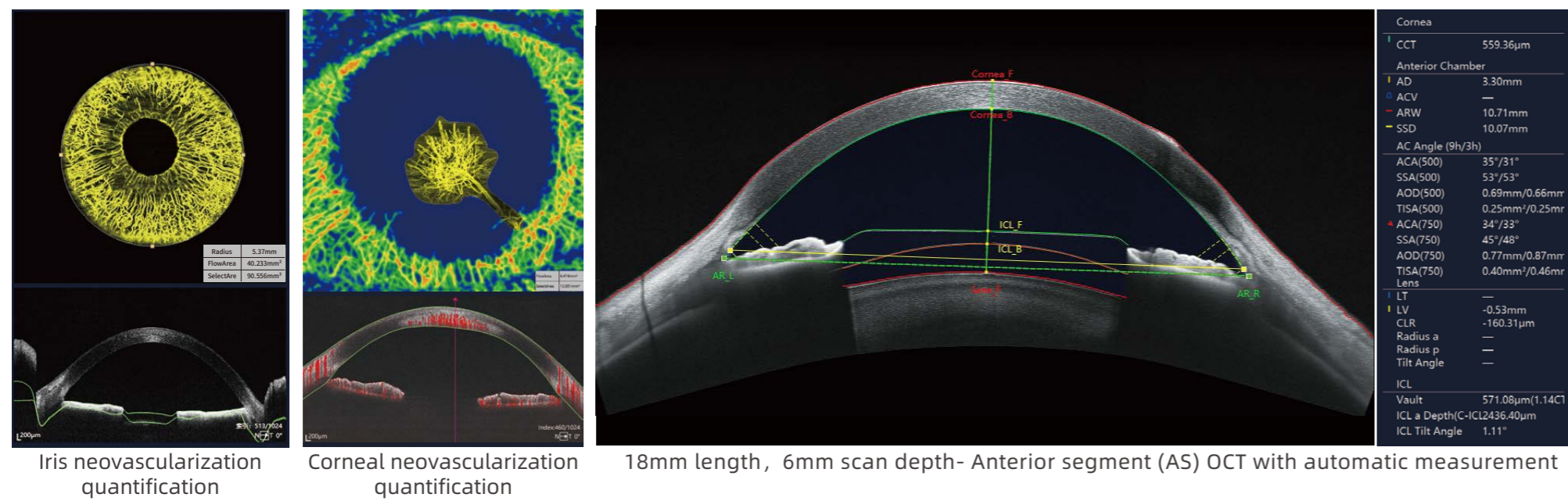
Choroidal Stroma Index (CSI)

# Comprehensive Quantitative Analysis

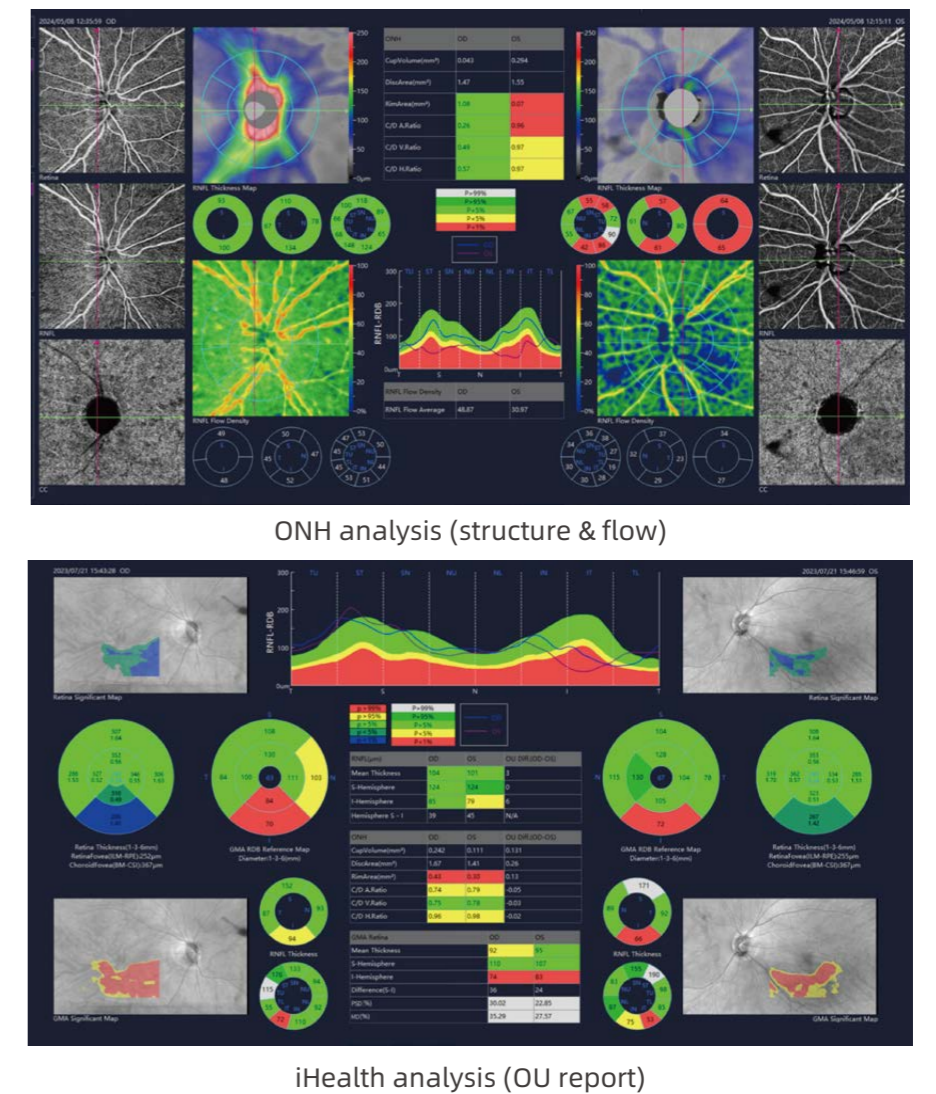
## Retinal blood flow with quantification



## AS OCTA with quantization and parameters



## Comprehensive glaucoma analysis

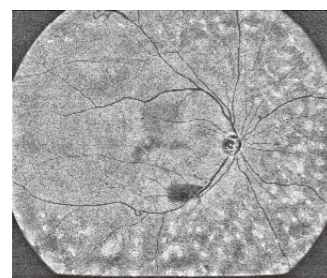
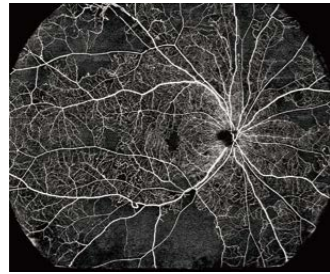


# Innovation.

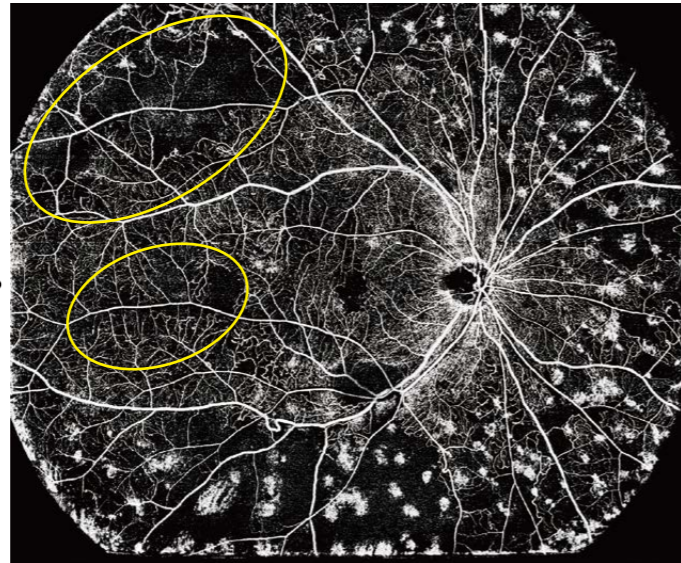
## iSpot

Precision and convenient OCTA-guided photocoagulation.

Superficial retina OCTA image detects NPA



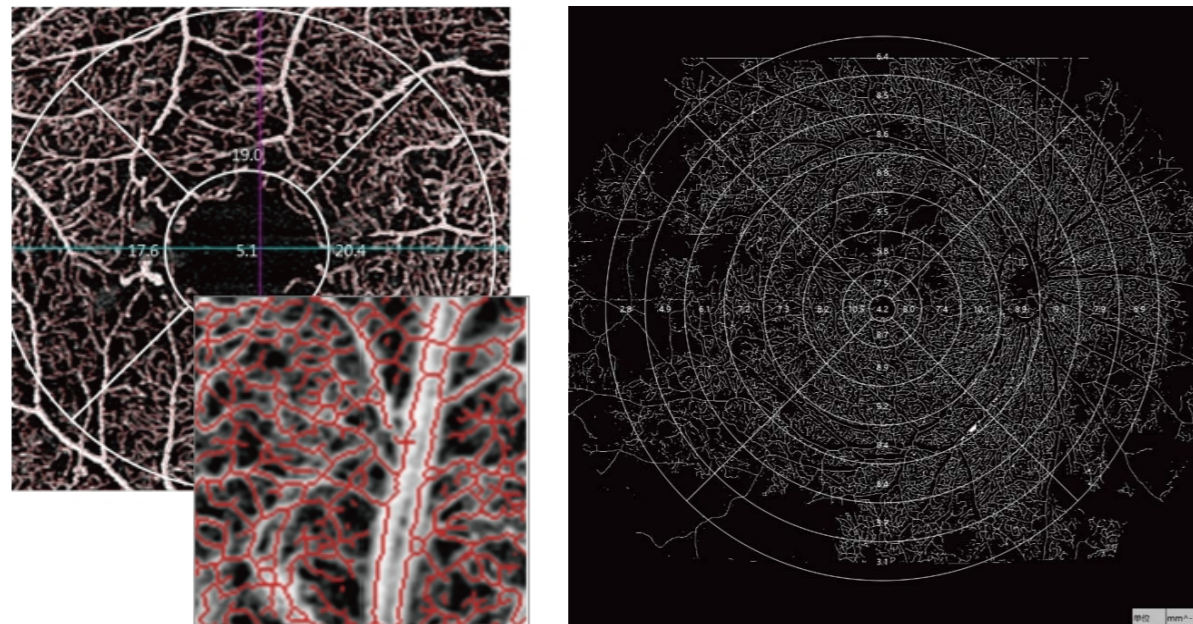
En face image of outer retina shows laser spots



Non-perfusion areas with insufficient laser are clearly identified

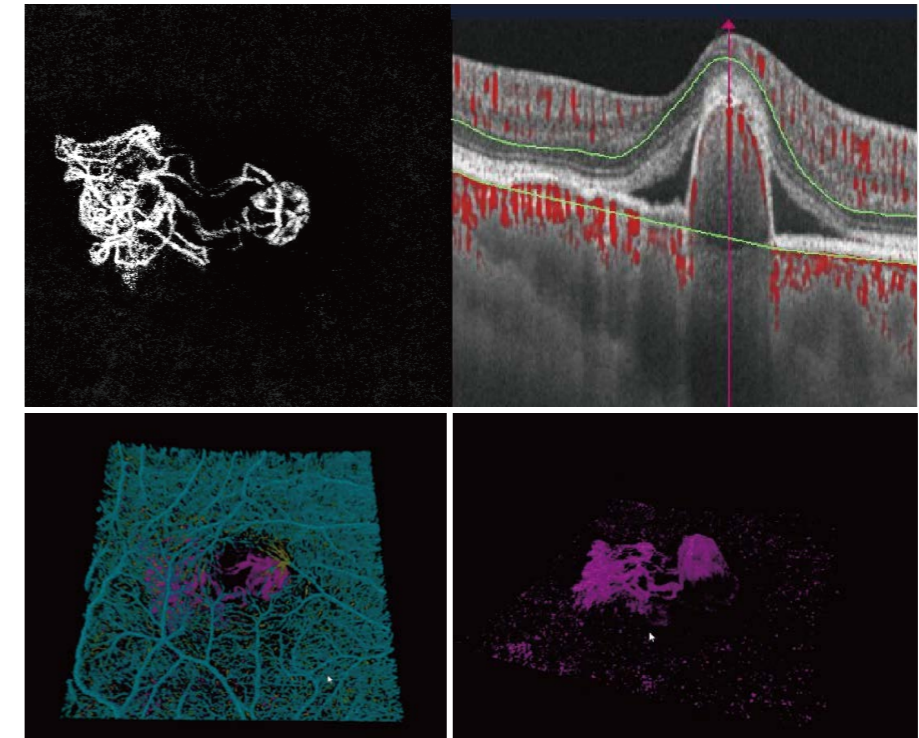
## Vessel Skeleton Density (VSD)

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



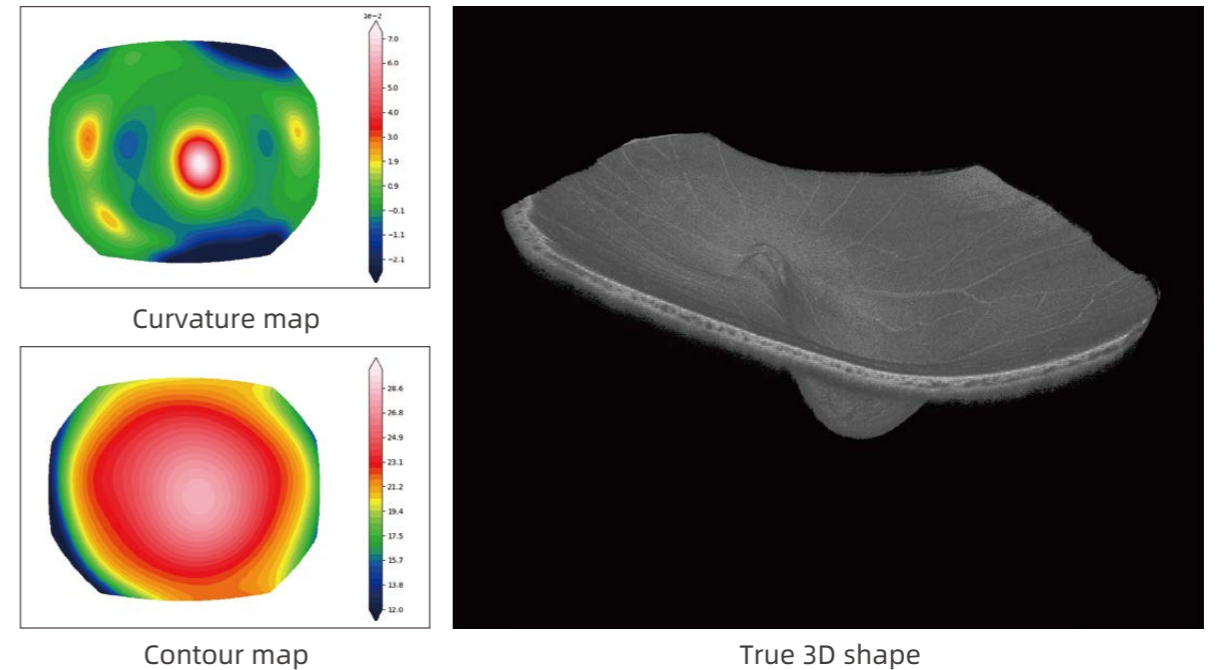
## 3D OCTA

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.

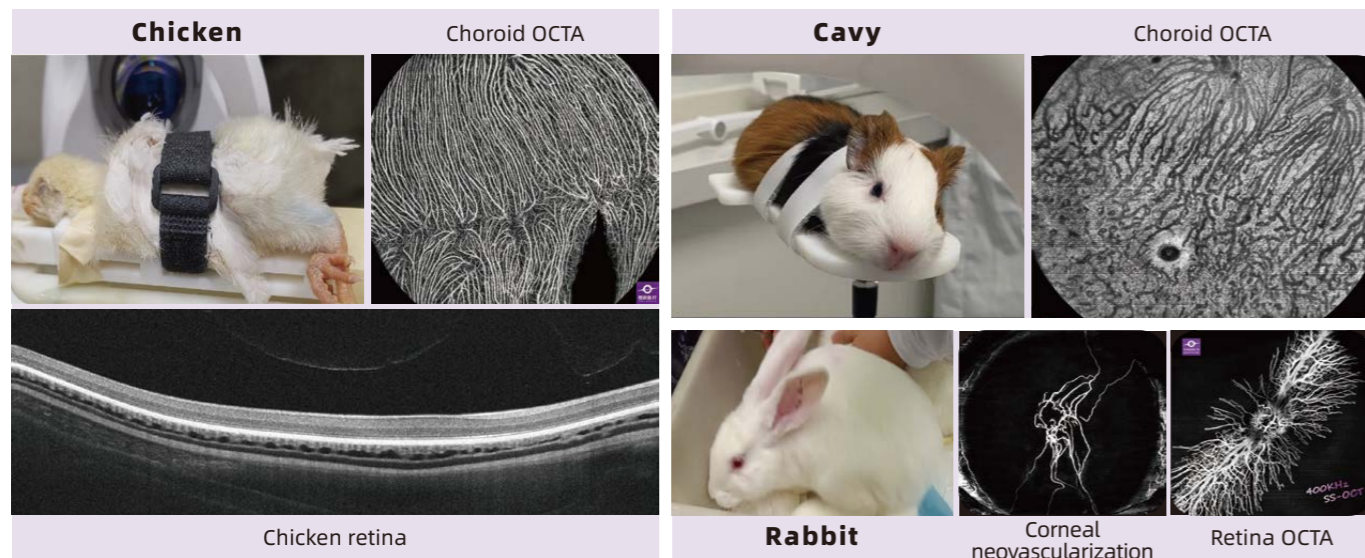
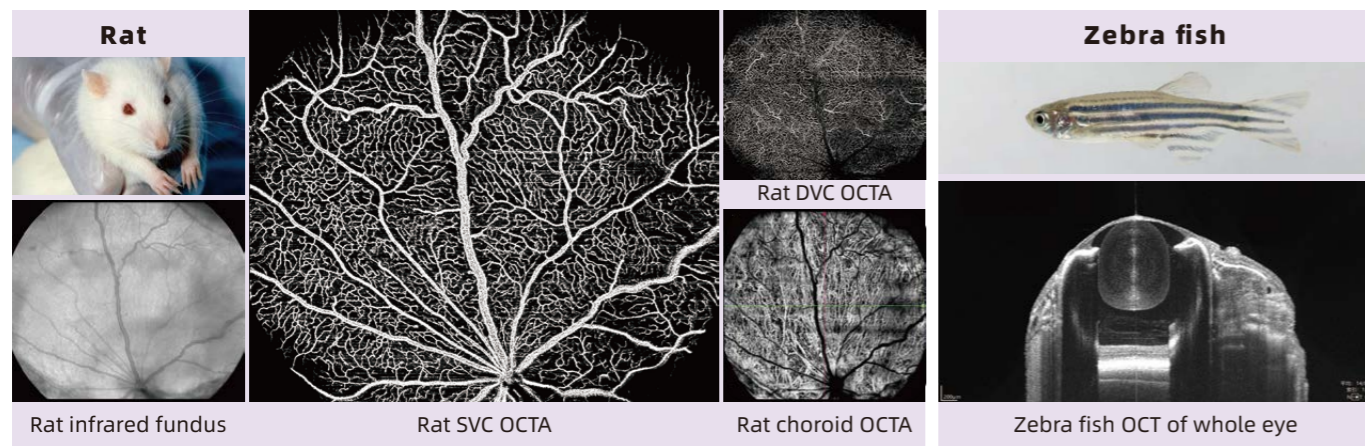
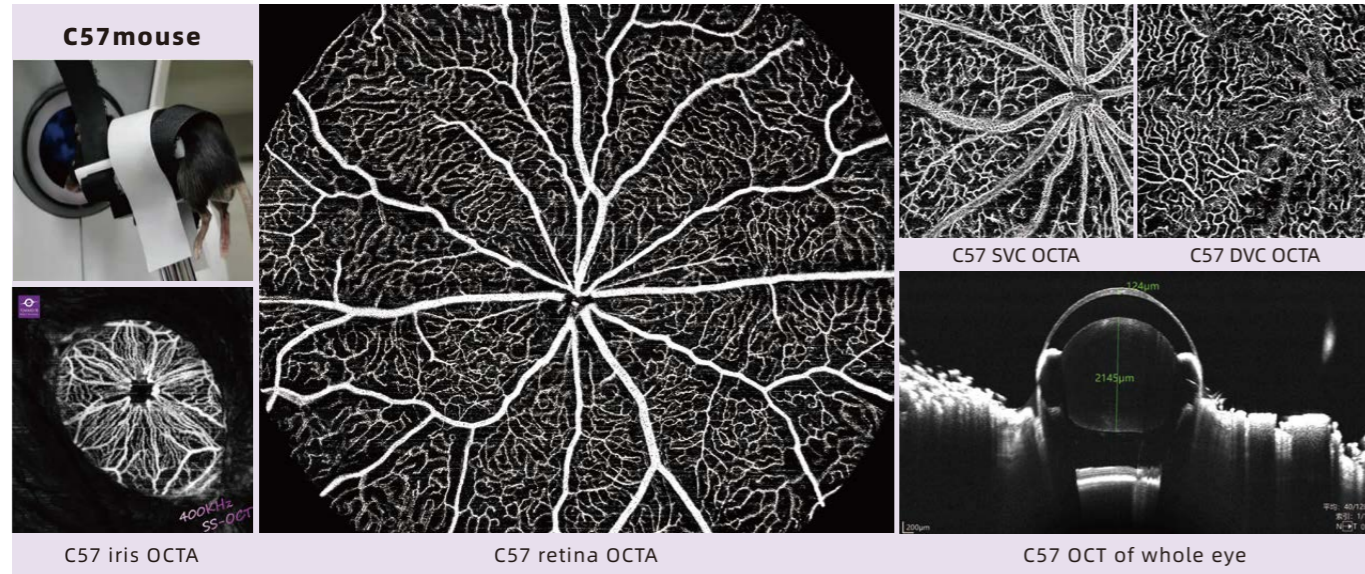


# Exploration.

## Animal Study

No extra lens needed
Fast acquisition
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.

