A detailed line drawing of a medical imaging device, specifically an anterior segment imager. It features a large, curved eyepiece-like component at the top left, mounted on a vertical frame. Below it is a circular sensor or lens unit, also mounted on the frame. A smaller, semi-circular component is positioned below the main unit. The entire assembly is set against a dark background.

ANTERION®

Multimodal Imaging Platform
Optimized for the Anterior Segment

HEIDELBERG
ENGINEERING



The multimodal functionality you need

The image quality you expect

Imaging App

- Anterior chamber and angle imaging
- Corneal and scleral imaging
- Visualization of the lens and both surfaces
- Customizable scan patterns
- Peripheral imaging

The expandable design you want (optional)

Cornea App

- Corneal topography
- Corneal tomography
- Pachymetry
- Total corneal power
- Corneal wavefront analysis
- Corneal differential maps
- Progression analysis

Cataract App

- Axial length
- Lens thickness
- Aqueous depth
- Central corneal thickness
- Anterior axial curvature
- Total corneal power
- Total corneal wavefront
- Spheric and toric IOL calculator
- Formulas:
 - SRK/T
 - Haigis
 - Holladay I
 - Hoffer® Q
 - Barrett formulas (Universal II, Toric, True-K, True-K Toric)
 - ULIB import
 - IOL CON import
 - Okulix interface

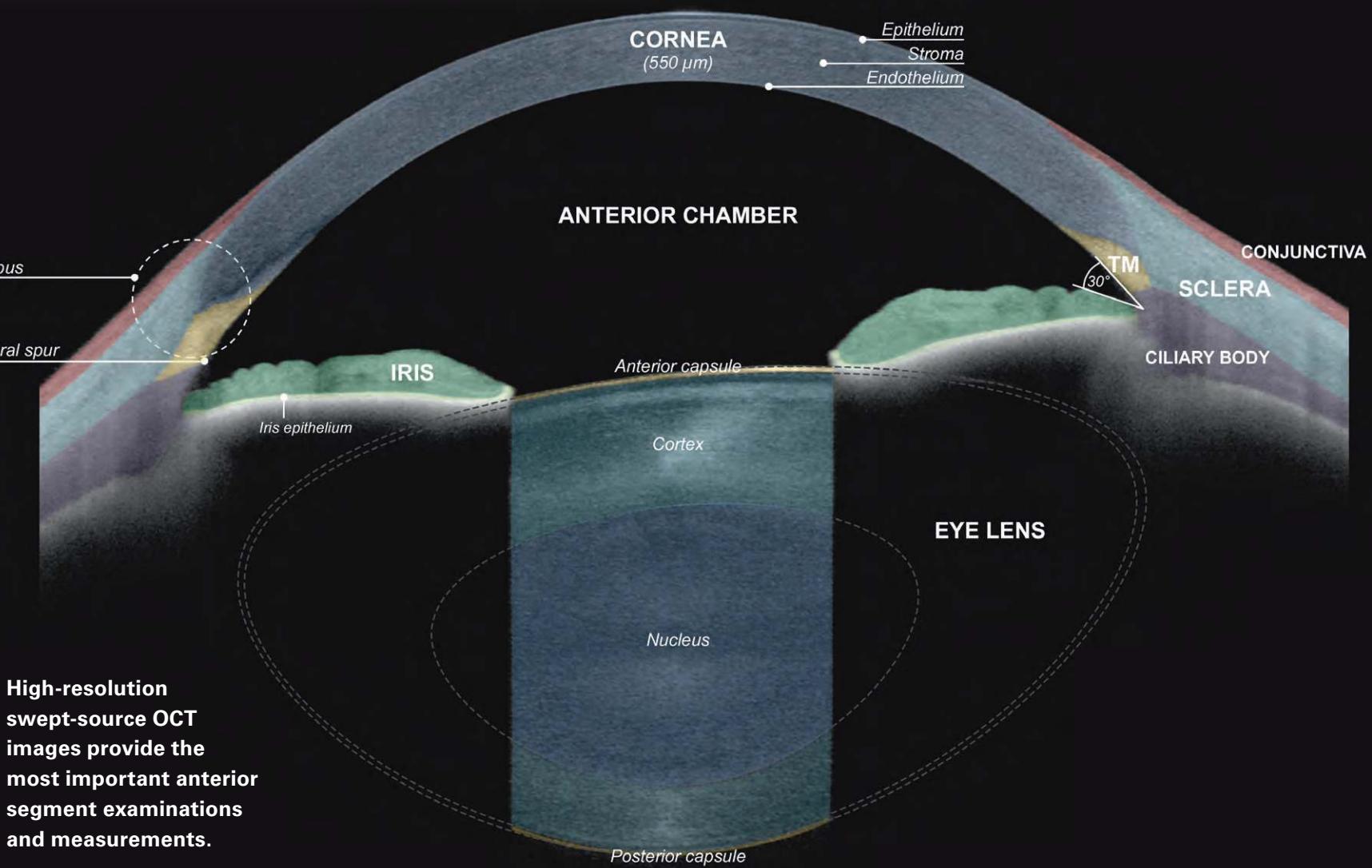
Metrics App

- Anterior chamber angle assessment
- 360° graphs of angle parameters
- Anterior chamber volume
- Lens vault
- Lens thickness
- Free-hand measurements

Experience confident diagnostics and workflow optimization

- Visually confirm all measurements with exceptionally clear swept-source OCT images.
- Increase efficiency and save space with a customizable, compact platform that meets your individual needs.
- Simplify the patient journey and transform your clinical workflow.
- Discover the speed and security of HEIDELBERG EYE EXPLORER HEYEX 2 image management.

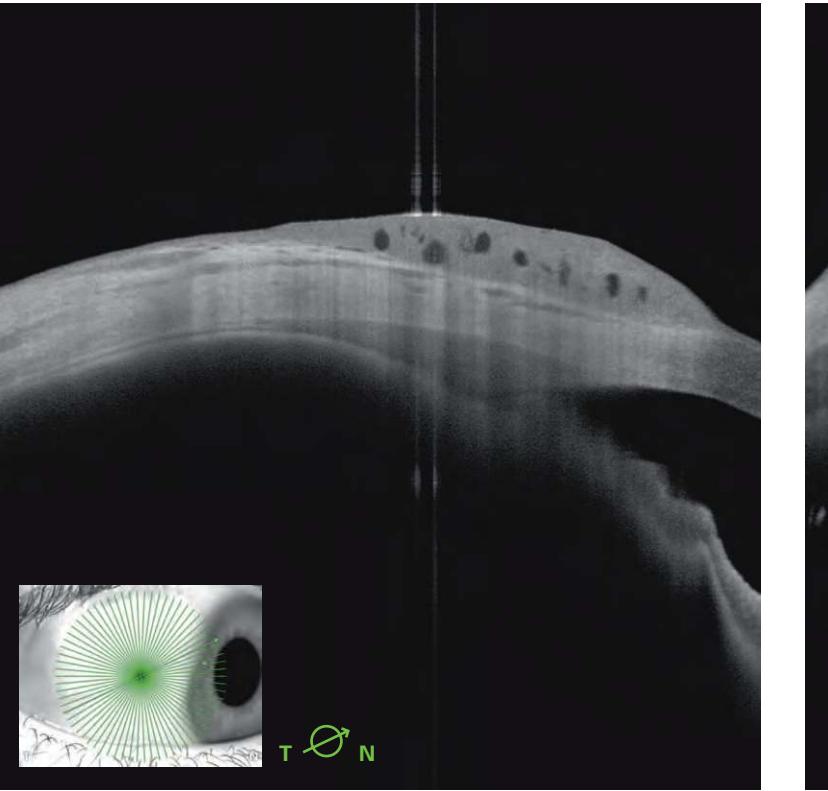
Anterior segment anatomy





Imaging App - Enhance your clinical confidence

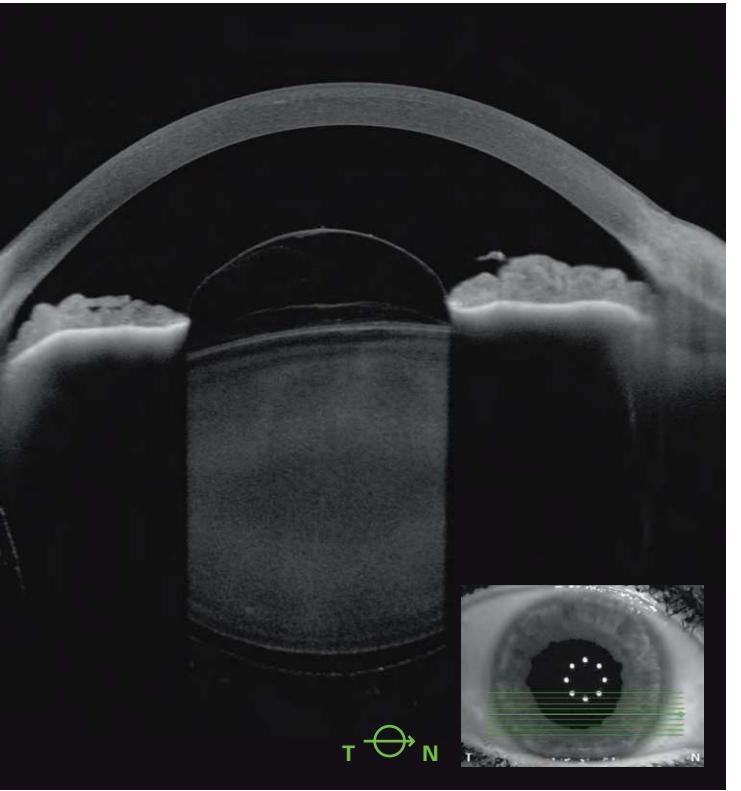
The Imaging App comes as standard. Visualize various anterior segment pathologies or surgical results, such as keratoplasty, implanted IOLs, and corneal rings.



Conjunctival nevus (lateral fixation)

Image courtesy: Sacha Nahon-Esteve, MD, Nice, France

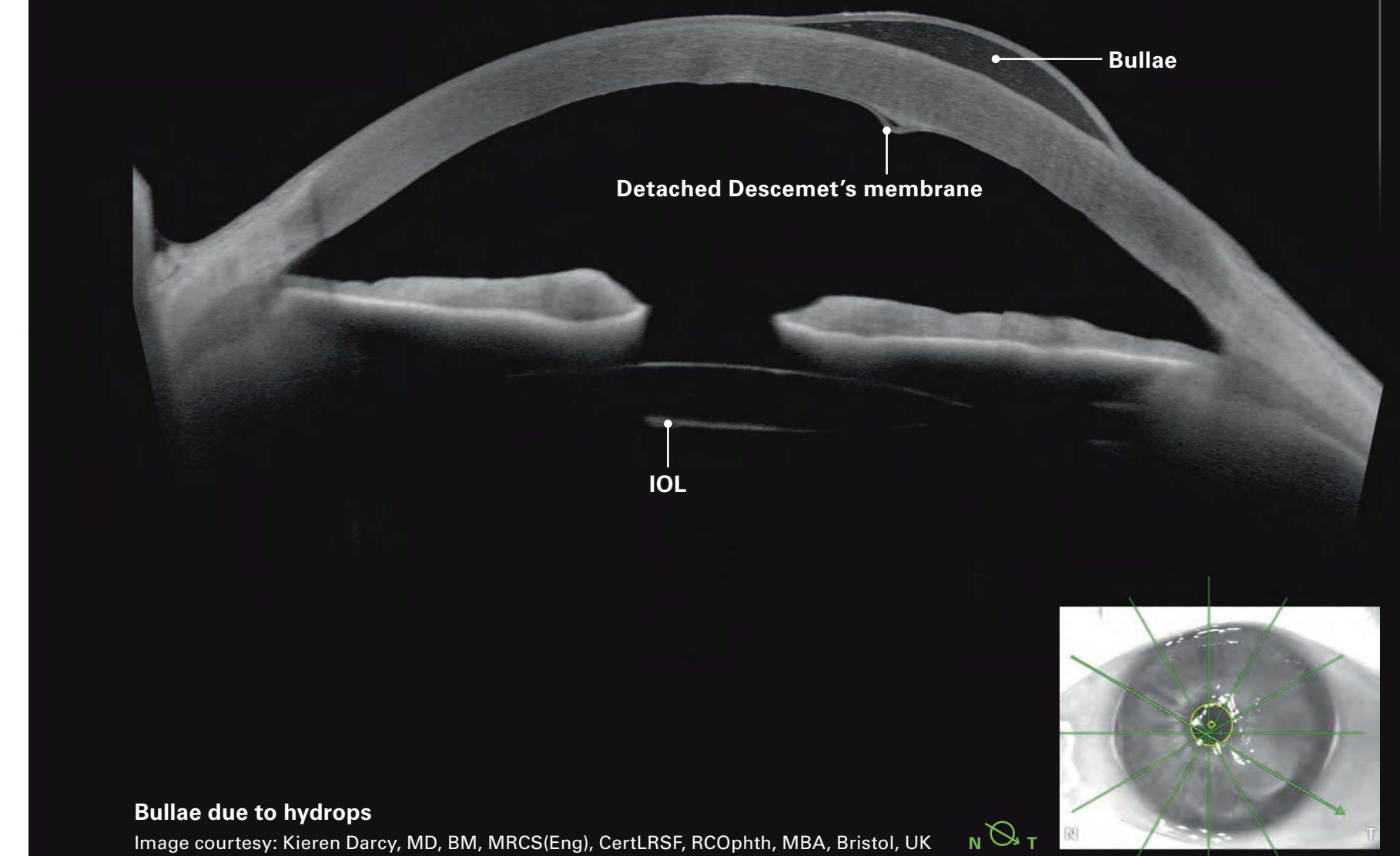
A detailed visualization of the sclera, ciliary body, and rectus muscle assists you in the diagnosis and management of pathologies that impact these anatomical structures.

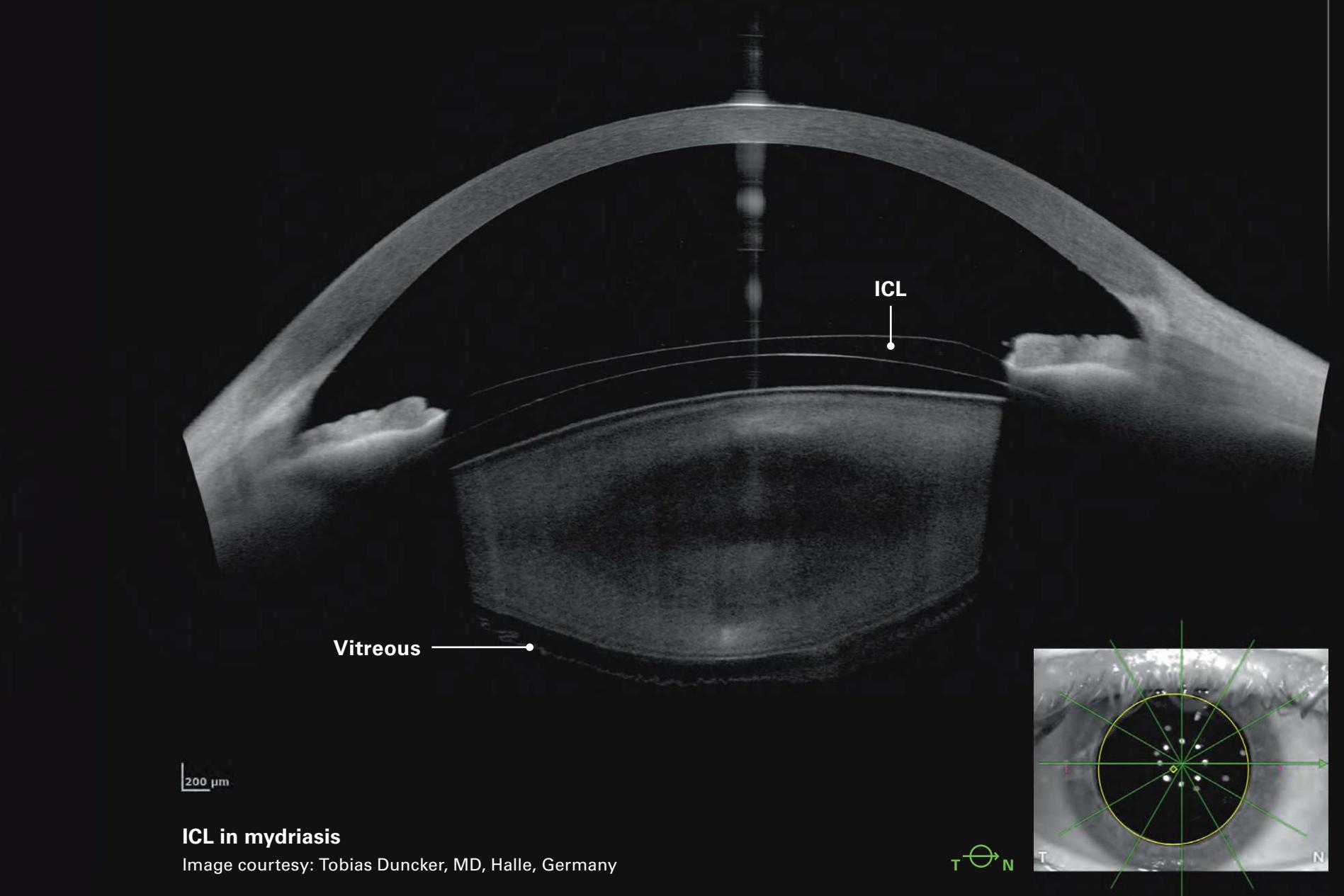
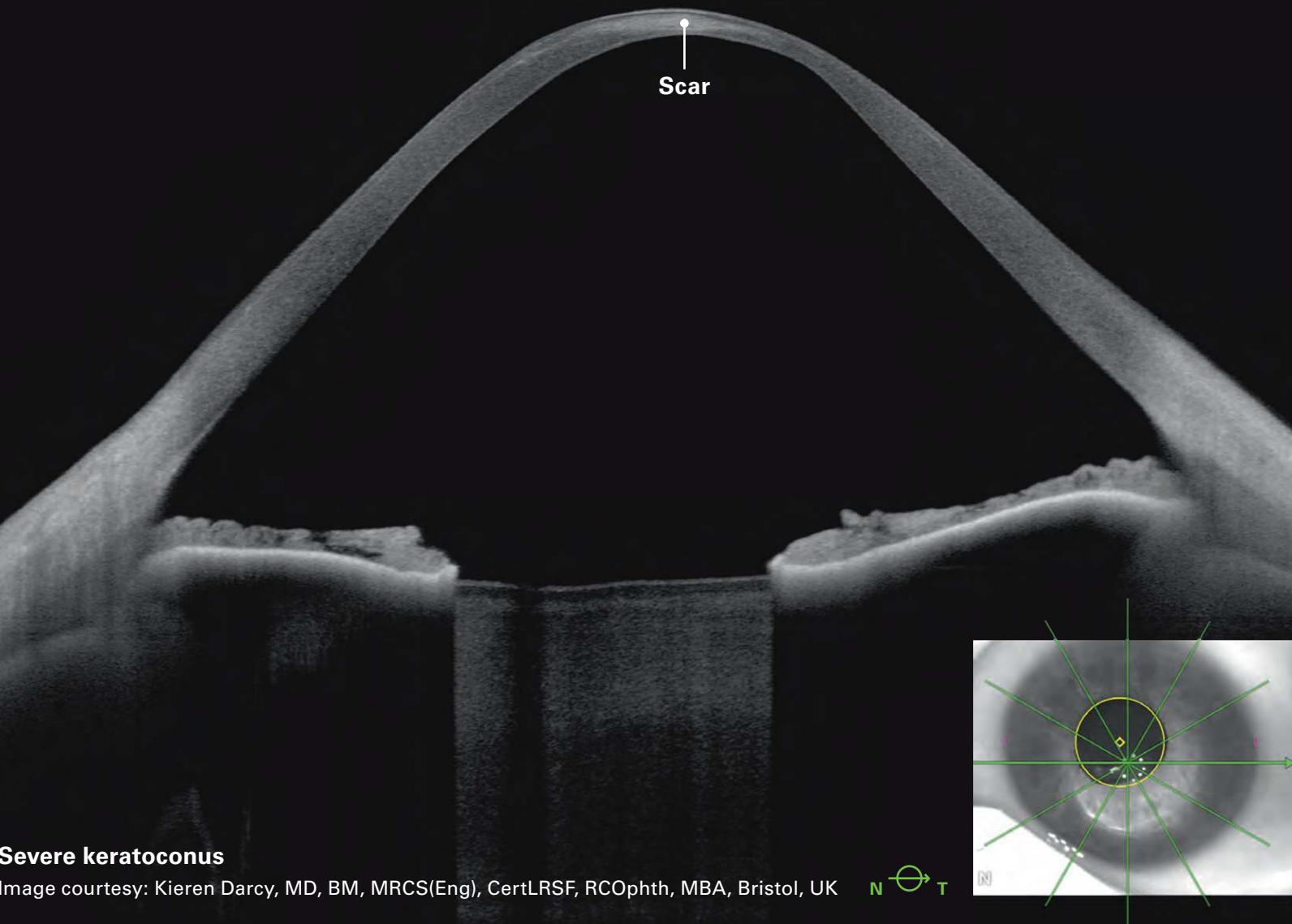
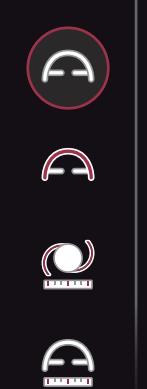


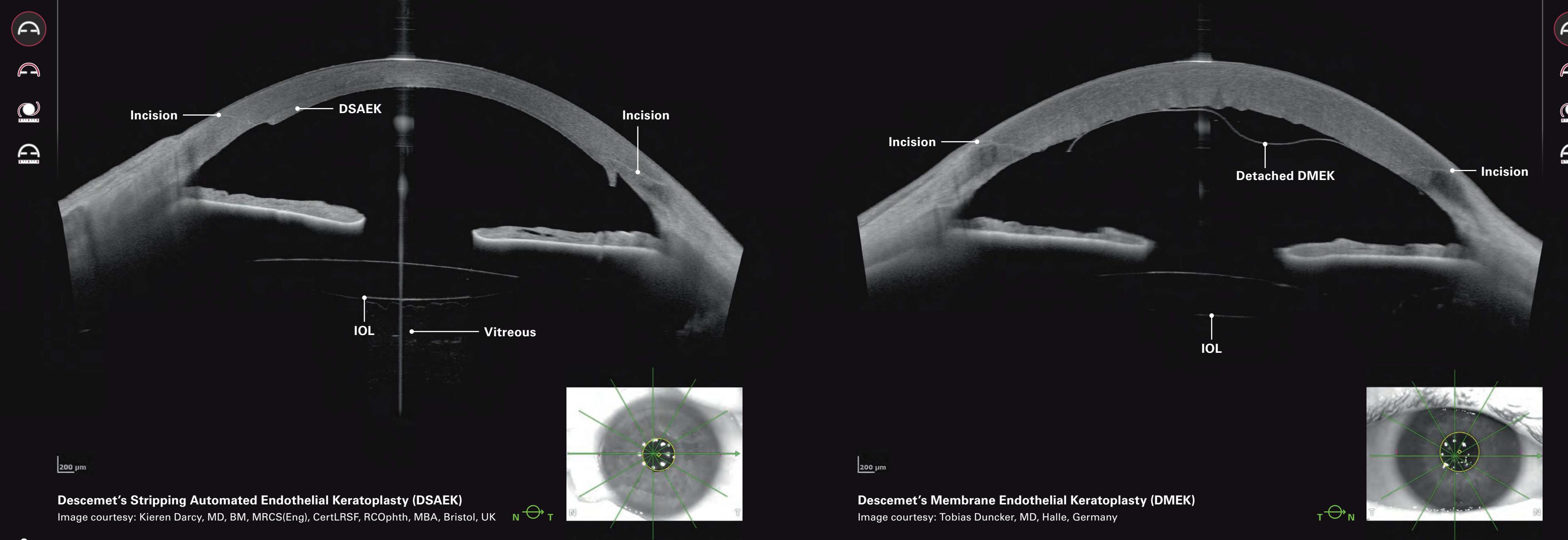
Post trauma, vitreous in the anterior chamber

Bullae due to hydrops

Image courtesy: Kieren Darcy, MD, BM, MRCS(Eng), CertLRSF, RCOPhtth, MBA, Bristol, UK







Descemet's Stripping Automated Endothelial Keratoplasty (DSAEK)

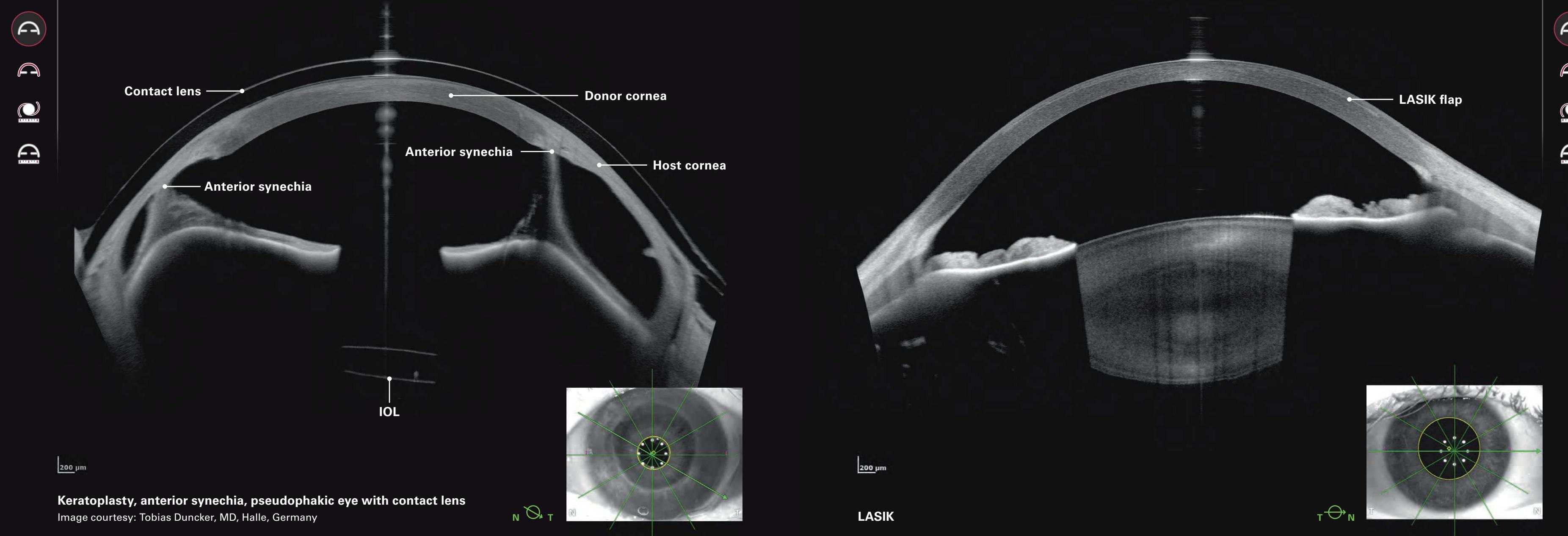
Image courtesy: Kieren Darcy, MD, BM, MRCS(Eng), CertLRSF, RCOphth, MBA, Bristol, UK

N → T

Descemet's Membrane Endothelial Keratoplasty (DMEK)

Image courtesy: Tobias Duncker, MD, Halle, Germany

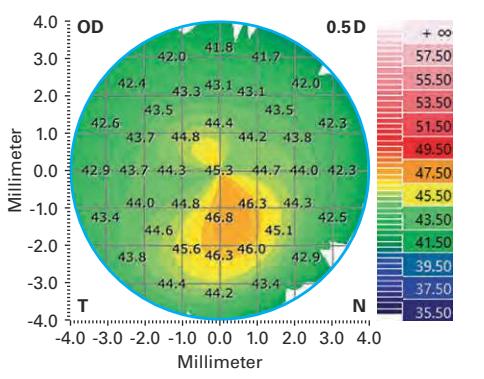
T → N



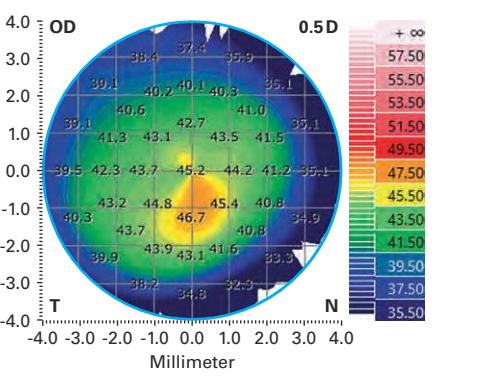


Cornea App – Customized reports enhance your workflow

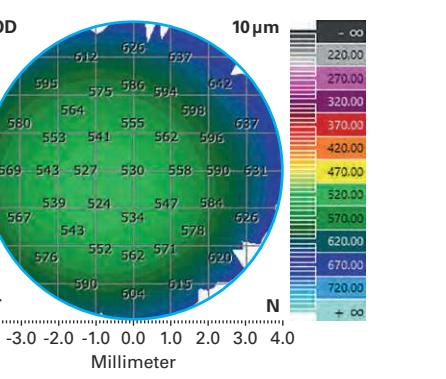
Anterior axial curvature



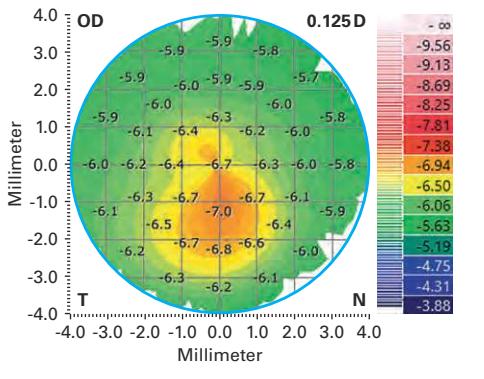
Anterior tangential curvature



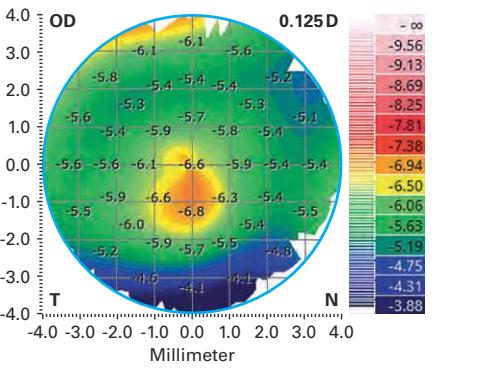
Pachymetry



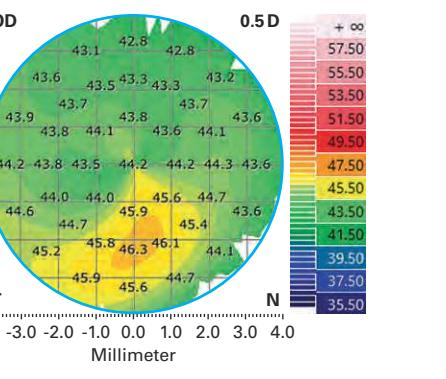
Posterior axial curvature



Posterior tangential curvature



Total corneal power

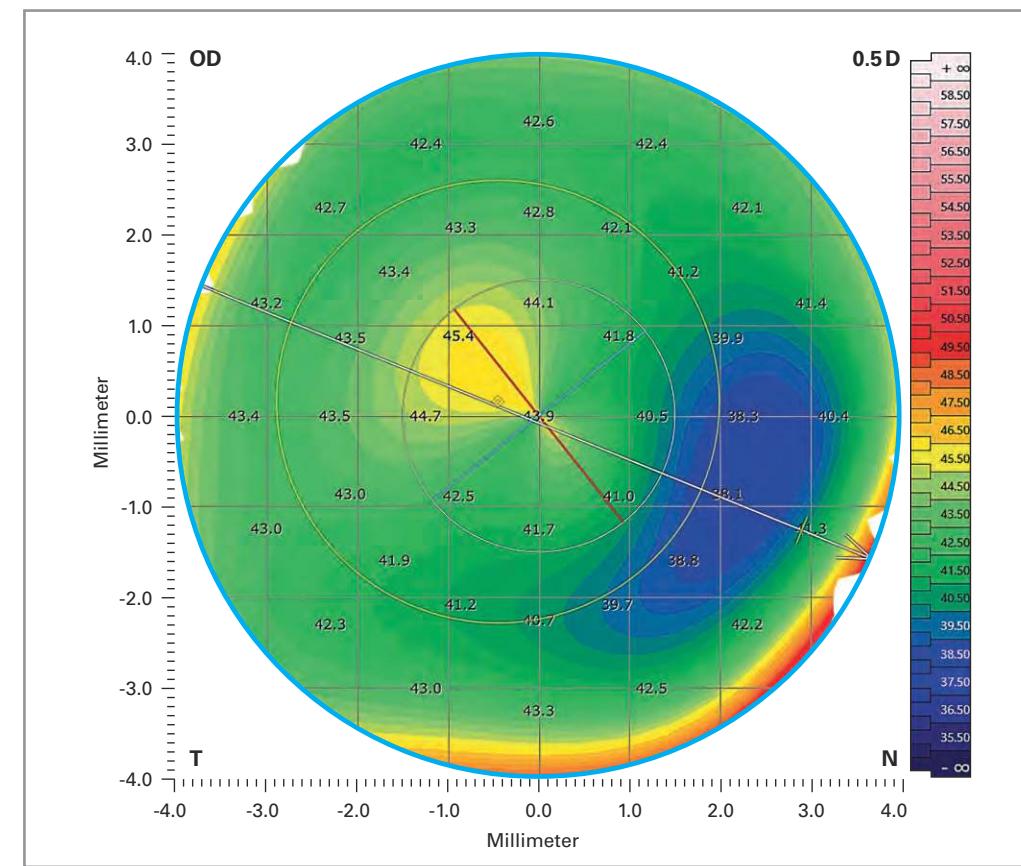


Keratoconus Multiview

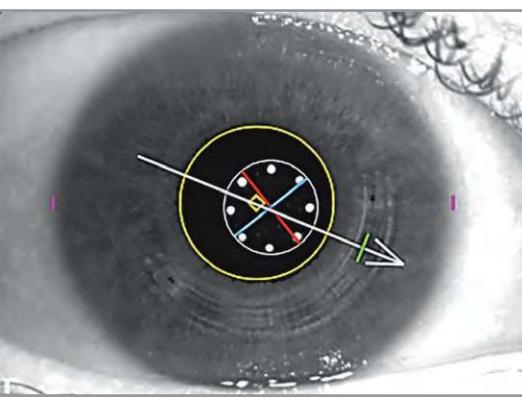
Image courtesy: Oliver Findl, MD, MBA, FEBO, Vienna, Austria

Corneal maps correlate with camera and OCT images

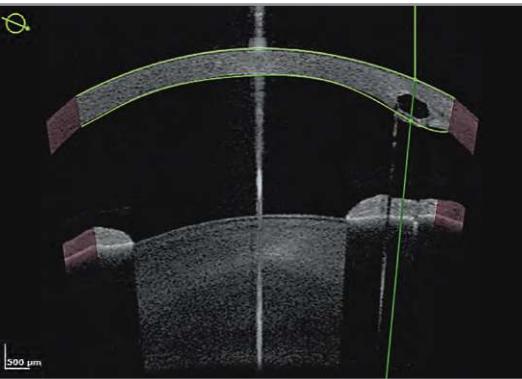
Total corneal power map



IR camera image



OCT cross-sectional scan



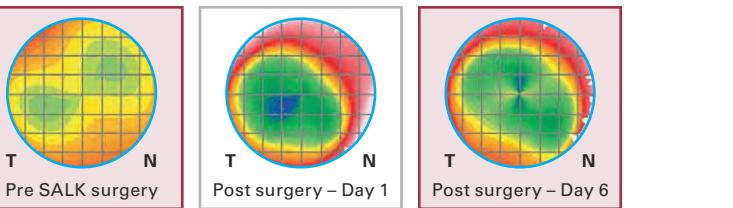
Intrastromal corneal ring segment

Image courtesy: Oliver Findl, MD, MBA, FEBO, Vienna, Austria

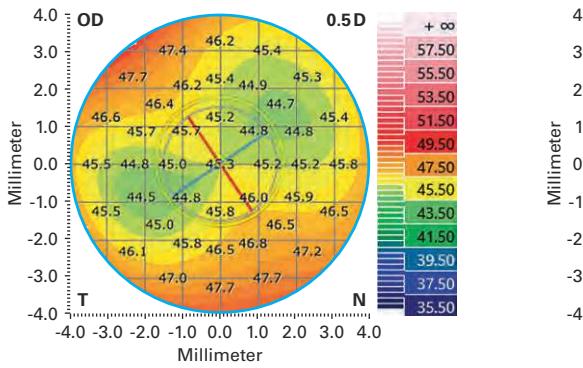


Visualize, measure and document progression

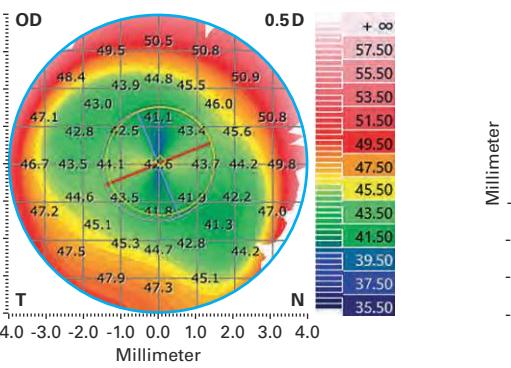
Examinations –
Total corneal power map:



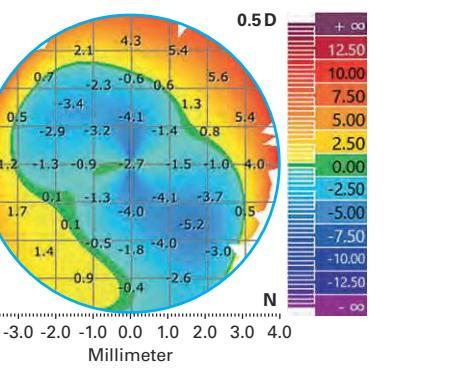
Baseline Pre SALK surgery



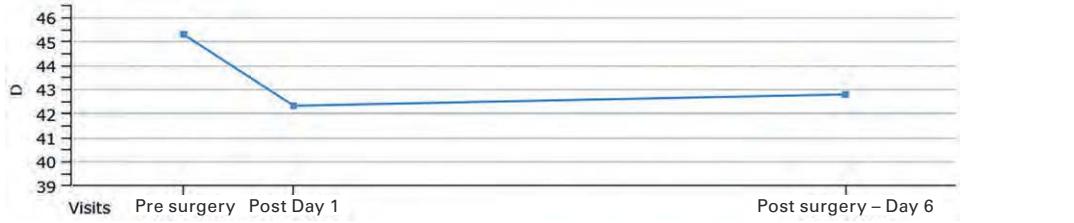
Follow-up Post surgery – Day 6



Follow-up – Baseline Difference



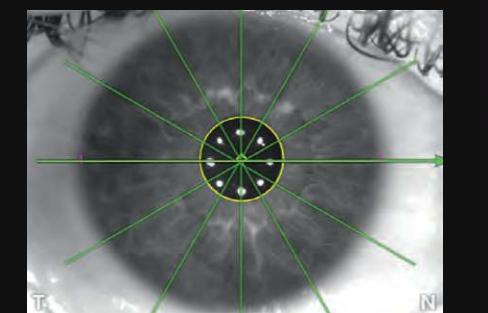
Trend analysis Total corneal power – K (average)



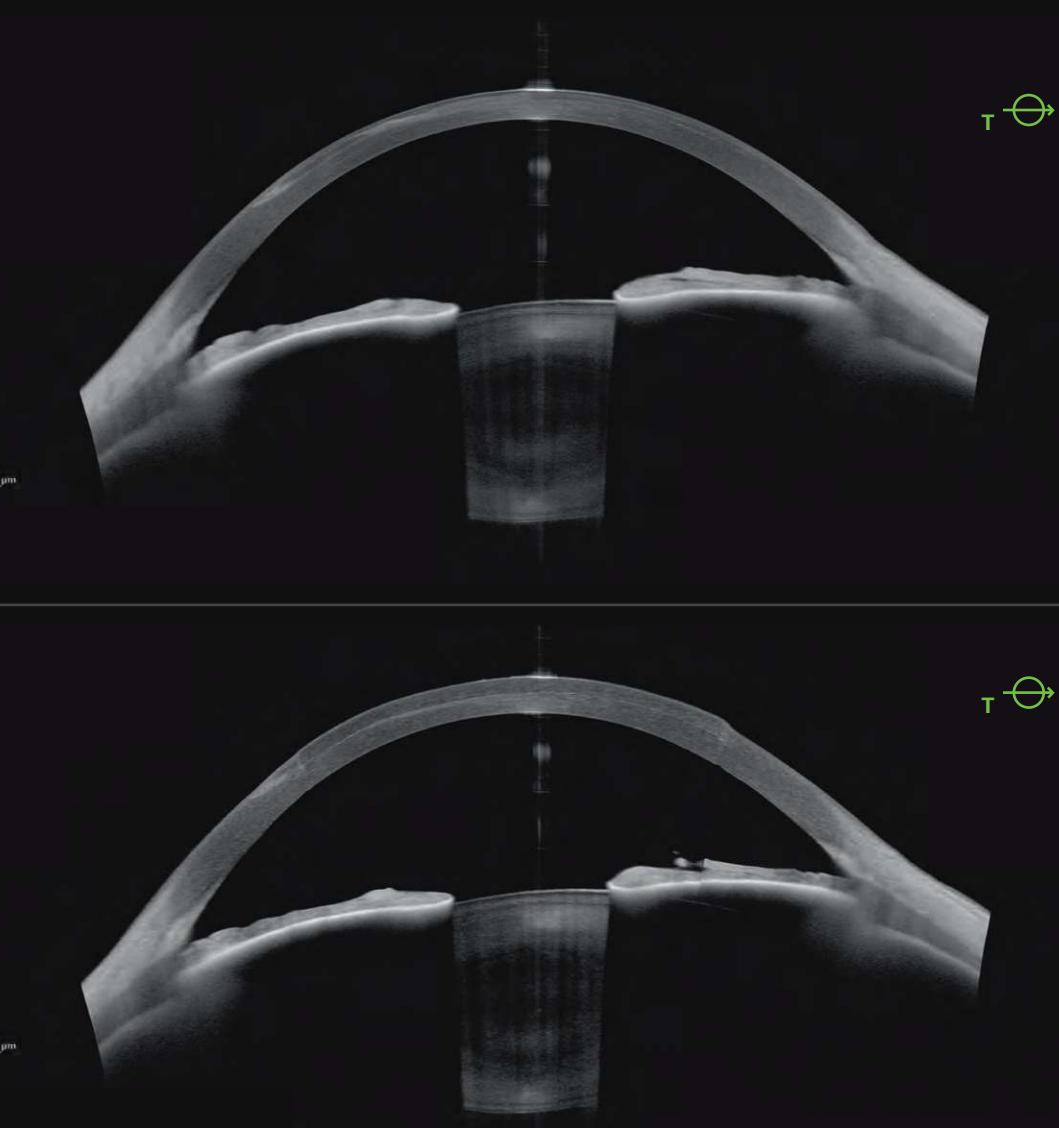
Superficial Anterior Lamellar Keratoplasty – SALK

Image courtesy: Kieren Darcy, MD, BM, MRCS(Eng), CertLRSF, RCOpht, MBA, Bristol, UK

Baseline – Pre SALK surgery

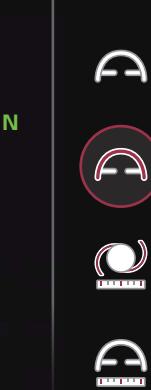


Follow-up – Day 6 –
Post SALK surgery



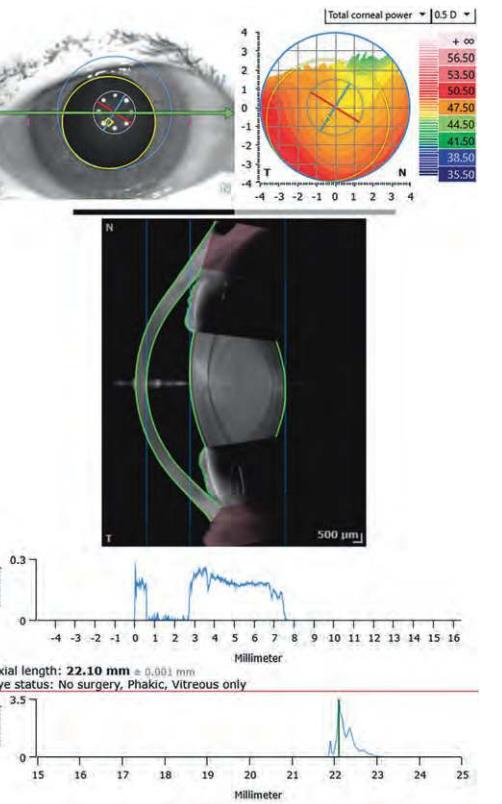
Confirm the reliability of your data using the Imaging App if clinically indicated

Image courtesy: Kieren Darcy, MD, BM, MRCS(Eng), CertLRSF, RCOpht, MBA, Bristol, UK

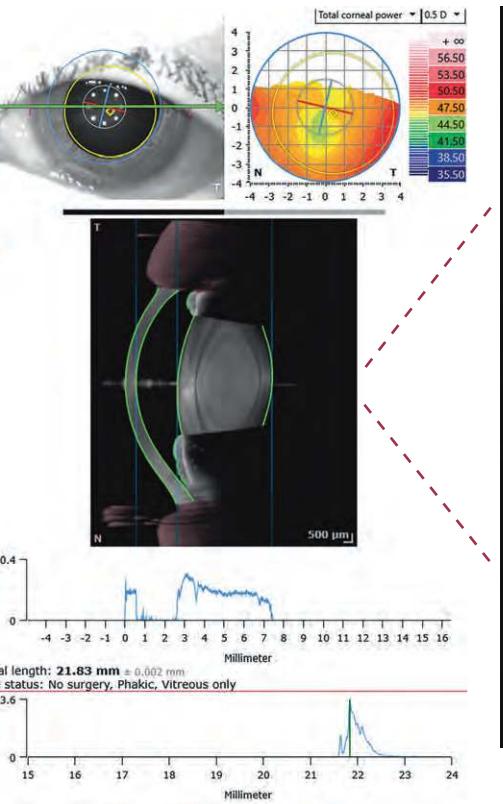


Cataract App – Confirm biometry on OCT images

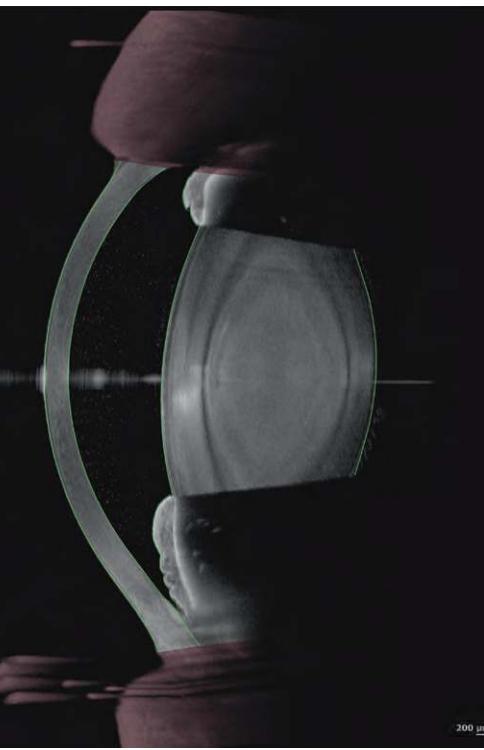
Biometry OD



Biometry OS



OCT cross-sectional scan OS



Conveniently compare the biometry data of both eyes. Optimize your clinical workflow using OCT images to visually confirm your biometry data. See what you measure and measure what you see – for more confidence.

Save time and streamline your workflow

Parameter tab

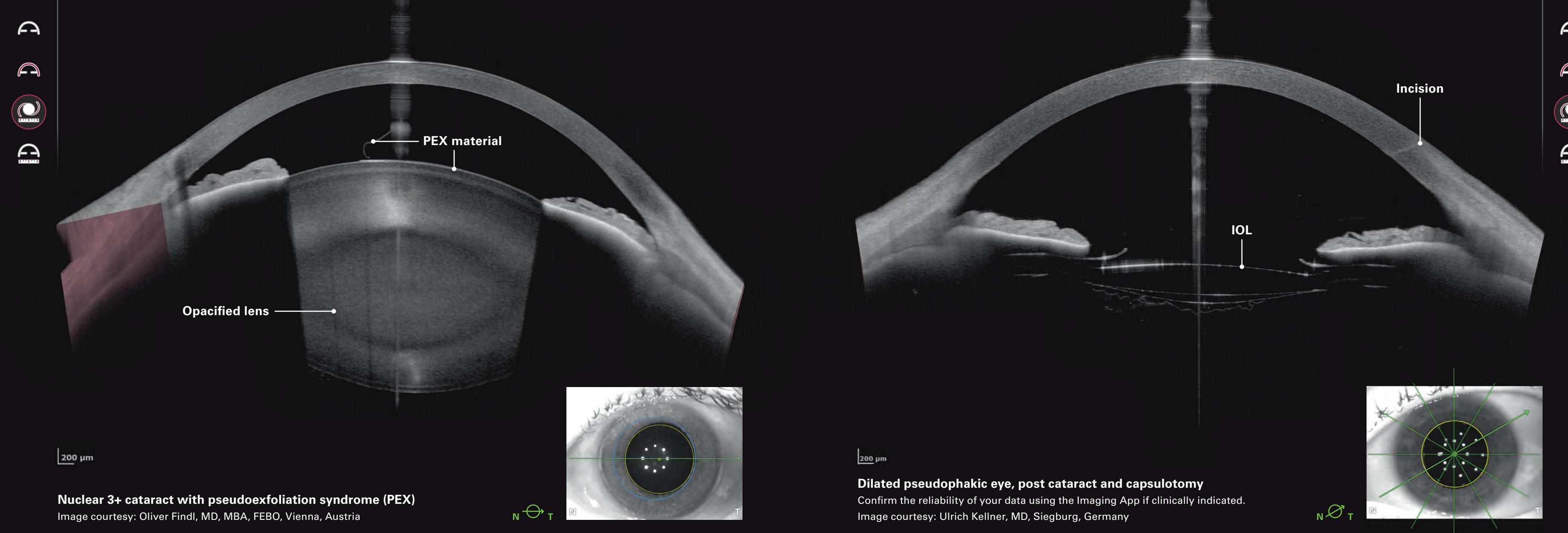
Basics ▶ Premium IOL		
OD	OS ⚠️	OD - OS Difference
Anterior axial curvature (simulated)		
nk = 1.3375; 3 mm ring		
SimK average	47.17 D	46.47 D
SimK (steep)	47.40 D @ 134°	47.14 D @ 164°
SimK (flat)	46.93 D @ 44°	45.82 D @ 74°
Astigmatism (steep)	0.47 D @ 134°	1.32 D @ 164°
Astigmatism (Steep)		
nc = 1.376; nah=1.336; 3 mm ring		
Astigm. (total)	0.57 D @ 148°	1.82 D @ 167°
Astigm. (posterior)	-0.30 D @ 91°	-0.35 D @ 91°
Δ Ast. (anterior - total)	-0.11 D @ -14°	-0.49 D @ -3°
Total corneal wavefront		
3 mm zone, pupil-centered		
Z ² Spherical aberration	0.03 μm	n/a
RMS HOA	0.12 μm	n/a μm
n/a μm		
Pachymetry		
CCT (vertex)	564 μm	534 μm
30 μm		
Anterior segment		
AQD	2.18 mm	2.07 mm
WTW	11.22 mm	11.15 mm
Lens thickness	4.79 mm	4.78 mm
0.01 mm		
Pupil		
Pupil diameter	6.5 mm	6.4 mm
0.1 mm		
Pupil center x/y (kappa)	-0.39/-0.69 mm	0.42/-0.31 mm
Axial length		
Length	22.10±0.00 mm	21.83±0.00 mm
0.27 mm		

Spheric calculator OS

Eye status: No surgery, Phakic, Vitreous only		
Target refraction:	0.00 D	+ -
IOL database:	keyuser	
Template:	Custom	
Barrett Universal II		
Bausch&Lomb EnVista TORIC (MXE)		
A const: 119.11 DFR: -0.50		
IOL power	Residual refraction	
23.71 (optimal)	0.00 (optimal)	
24.50	-0.57	
24.00	-0.21	
23.50	0.15	✓
23.00	0.50	
22.50	0.84	
Barrett Universal II		
Haigis		
Bausch&Lomb EnVista TORIC (MXE)		
A0: 1.460 A1: 0.400 A2: 0.100		
IOL power	Residual refraction	
23.58 (optimal)	0.00 (optimal)	
24.50	-0.66	
24.00	-0.30	
23.50	0.06	✓
23.00	0.41	
22.50	0.75	
Barrett Universal II		
Haigis		
Bausch&Lomb LI61AO SofPort		
A const: 118.57 DFR: 0.00		
IOL power	Residual refraction	
23.07 (optimal)	0.00 (optimal)	
24.00	-0.68	
23.50	-0.31	
23.00	0.05	✓
22.50	0.26	
22.00	0.47	
21.50	0.83	

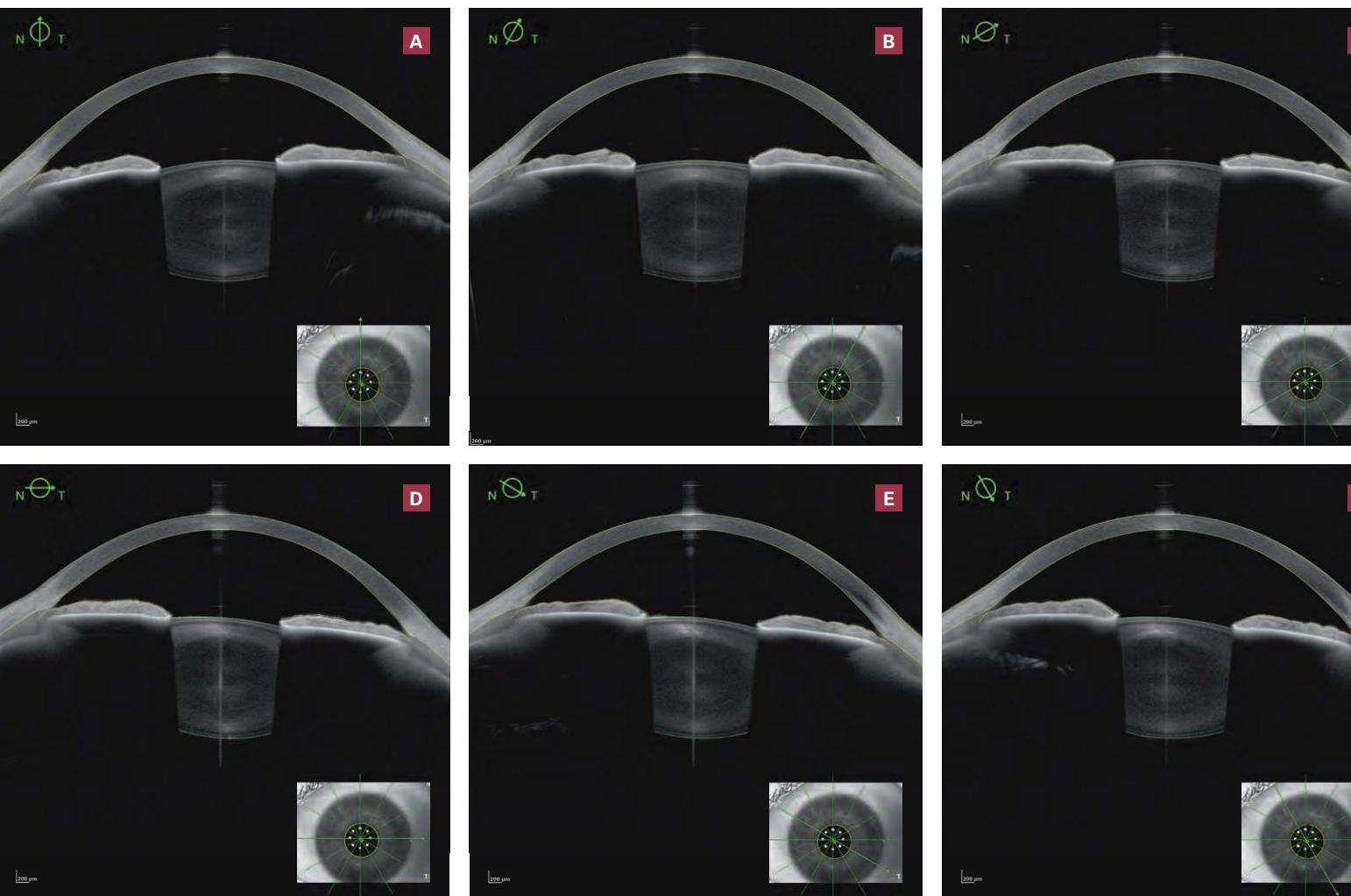
Toric calculator OS

Posterior astigmatism:		
Incision location (green):		
Surgically induced astigmatism:		
IOL axis (red dashed):		166°
Measured		
0 °	+ -	
0.2 D	+ -	
166°		
Posterior astigmatism:		
Incision location (green):		
Surgically induced astigmatism:		
IOL axis (red dashed):		166°
Measured		
0 °	+ -	
0.2 D	+ -	
166°		
Posterior astigmatism:		
Incision location (green):		
Surgically induced astigmatism:		
IOL axis (red dashed):		166°
Measured		
0 °	+ -	
0.2 D	+ -	
166°		
Posterior astigmatism:		
Incision location (green):		
Surgically induced astigmatism:		
IOL axis (red dashed):		166°
Measured		
0 °	+ -	
0.2 D	+ -	
166°		
Posterior astigmatism:		
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Measured		
0 °	+ -	
0.2 D	+ -	
166°		
Posterior astigmatism:		
Incision location (green):		
Surgically induced astigmatism:		
IOL axis (red dashed):		166°
Measured		
0 °	+ -	
0.2 D	+ -	
166°		
Posterior astigmatism:		
Incision location (green):		
Surgically induced astigmatism:		
IOL axis (red dashed):		166°
Measured		
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0.2 D	+ -	
166°		
Posterior astigmatism:		
Incision location (green):		
Surgically induced astigmatism:		
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Measured		
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166°		
Posterior astigmatism:		
Incision location (green):		
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0.2 D	+ -	
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0 °	+ -	
0.2 D	+ -	
166°		
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Measured		
0 °	+ -	
0.2 D	+ -	
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0.2 D	+ -	
166°		
Posterior astigmatism:		
Incision location (green):		
Surgically induced astigmatism:		
IOL axis (red dashed):		166°
Measured		
0 °	+ -	
0.2 D	+ -	



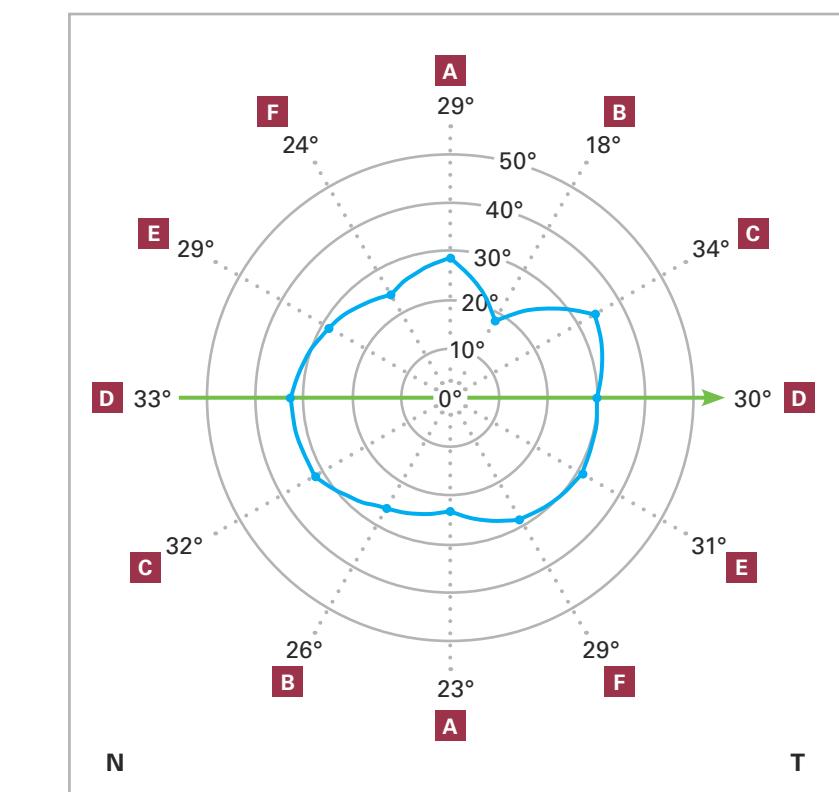


Metrics App – Measure what you see



Anterior segment parameters at a glance

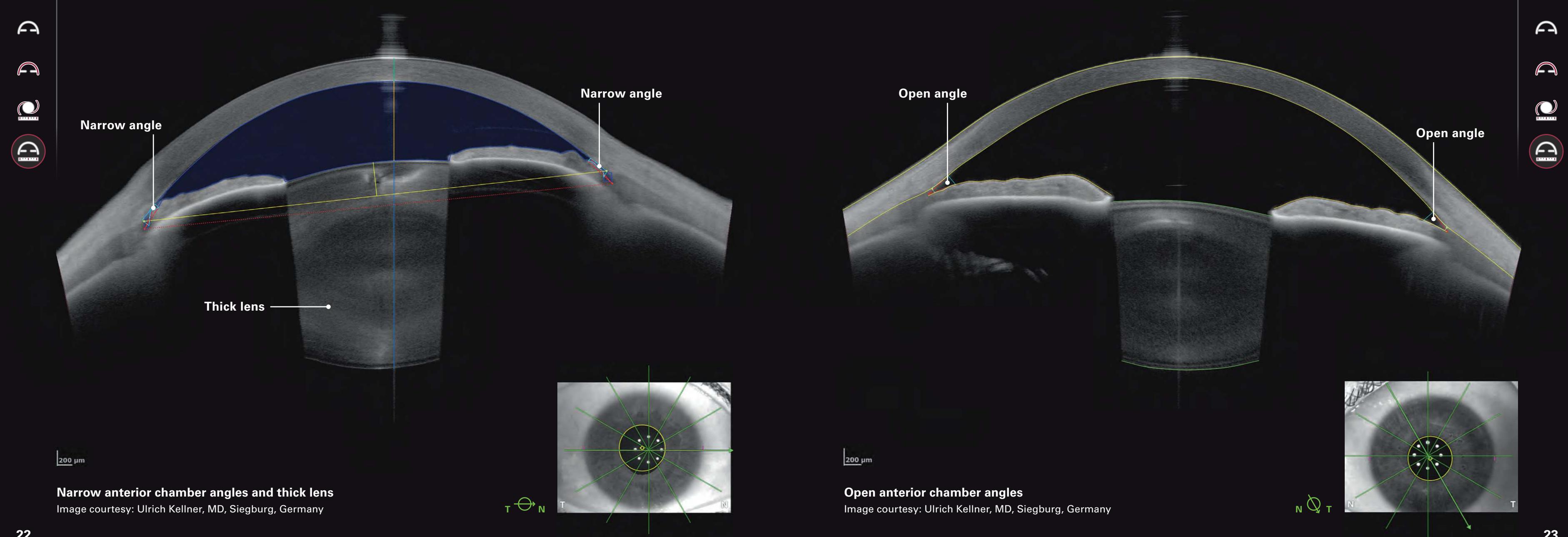
ACA 500



TISA 500



Benefit from anterior segment parameters at a glance using the 360° graphs to optimize your daily clinical routine. The Metrics App features the essential anterior chamber metrics such as aqueous depth, anterior chamber angles (ACA), angle opening distance (AOD), scleral spur angle (SSA), trabecular iris space area (TISA), ACA distance, spur-to-spur distance, central corneal thickness, and white-to-white.





Headquarters

Heidelberg Engineering GmbH · Max-Jarecki-Str. 8 · 69115 Heidelberg · Germany
Tel. +49 6221 64630 · Fax +49 6221 646362

AUS

Heidelberg Engineering Pty Ltd · Suite E5, 63 - 85 Turner St · Port Melbourne VIC 3207
Tel. +61 396 392 125 · Fax +61 396 392 127

CH

Heidelberg Engineering Schweiz GmbH · Schulstrasse 161 · 8105 Regensdorf
Tel. +41 44 8887 020 · Fax +41 44 8887 024

FIN

Heidelberg Engineering GmbH · Luomannotko 6 · 02200 Espoo
Tel. +358 505 226 963

UK

Heidelberg Engineering Ltd. · 55 Marlowes · Hemel Hempstead · Hertfordshire HP1 1LE
Tel. +44 1442 502 330 · Fax +44 1442 242 386

www.HeidelbergEngineering.com