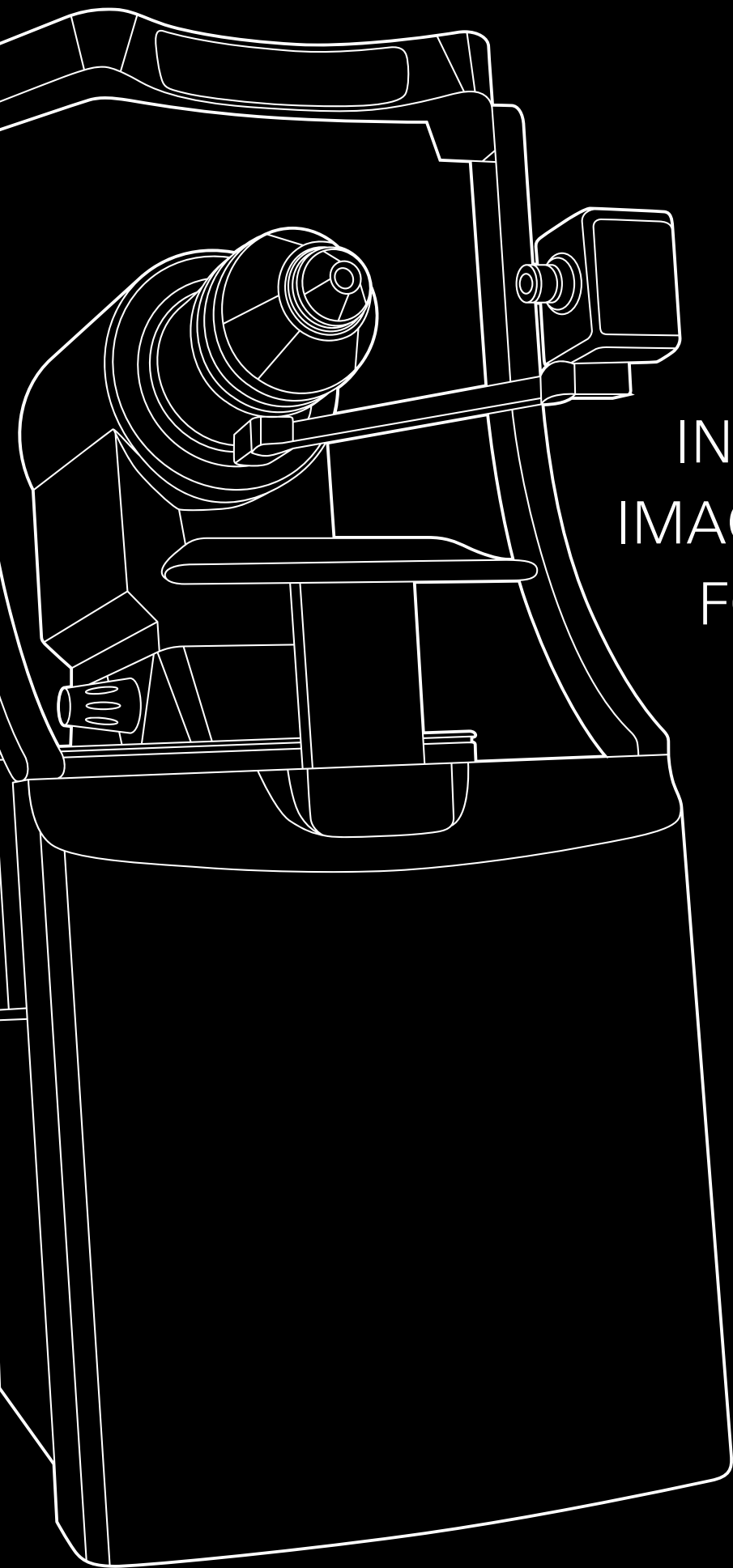




HEIDELBERG
RCM

IN VIVO CELLULAR
IMAGING OPTIMIZED
FOR THE CORNEA

■ HEIDELBERG
ENGINEERING ■

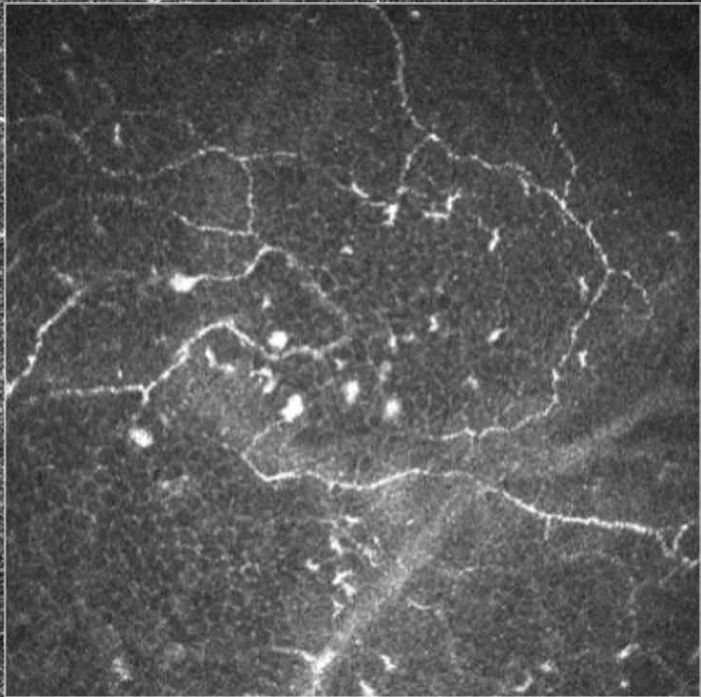
IN VIVO CORNEAL CONFOCAL MICROSCOPE

Heidelberg RCM is a compact ophthalmic device that uses confocal scanning laser microscopy to provide high-resolution wide-field microscopic images of the cornea, enabling the observation of cellular-level morphology.

Navigate through the cornea at the cellular level, selecting your preferred scanning depth for a comprehensive in vivo assessment of corneal layers from the epithelium to the endothelium.

Key Benefits

- Acquire high-resolution en face images of corneal cells and structures to support confident analysis and follow-up of corneal diseases and dystrophies.
- See more with a wider field of view of up to 600 x 600 μm .
- Assess corneal nerves at a microscopic level to gain insight into nerve morphology.



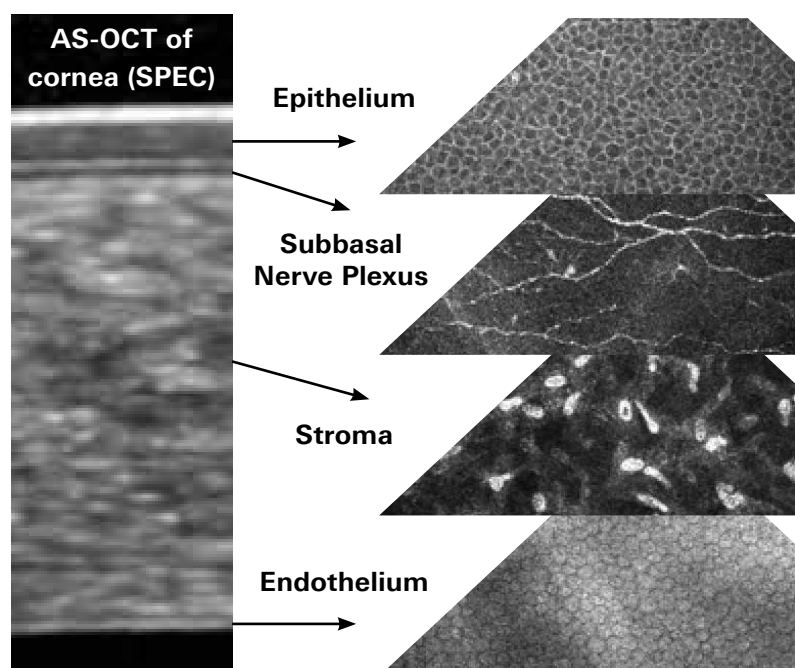
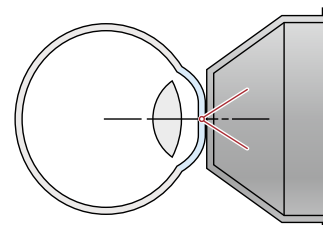
- ◀ Detailed imaging across a wider cornea field:

Field of view 400 x 400 μm vs
field of view 600 x 600 μm

EXAMINE IN VIVO. EXPLORE LAYER BY LAYER. ANALYZE IN DETAIL.

Examine corneal structures

Heidelberg RCM uses sterile, single-use corneal contact caps for rotation-free contact between the ocular surface and the microscope lens. Using the eye monitoring cameras, you can visualize the position of the corneal contact cap on the patient's eye throughout the examination.



Explore the cornea at the cellular level – layer by layer

Acquire unique en face images to visualize corneal cells and structures, distinguish keratocyte subpopulations, and reveal the intricate details of the subbasal nerve plexus.

Imaging Specifications

Field of view

- 400 × 400 μm
- 600 × 600 μm (optional)

Objective working distance

- 2.0 mm

Frame rate

- Pixel size 384 × 384: ≥ 30 fps
- Pixel size 512 × 512: ≥ 20 fps
- Pixel size 1024 × 1024: ≥ 10 fps

Optical lateral resolution

- ≤ 1.1 μm

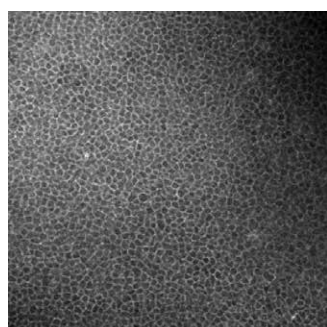
Digital lateral resolution

- ≤ 0.4 μm

Analyze the cornea with flexible acquisition modes

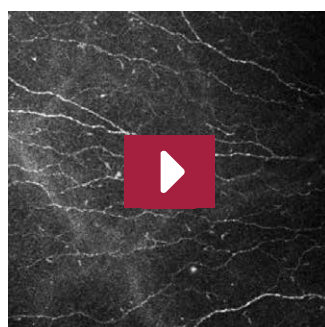
Section Scan

(scan at selected depth within the cornea)



Sequence Scan

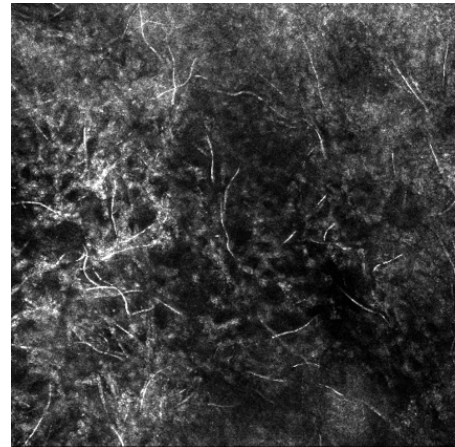
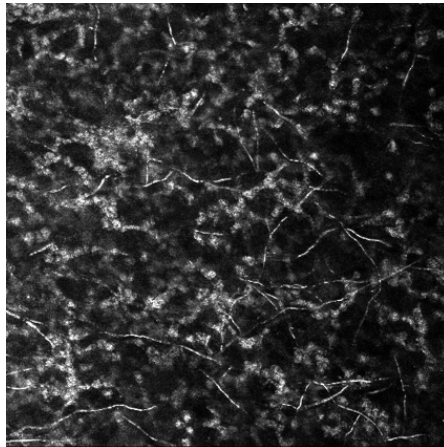
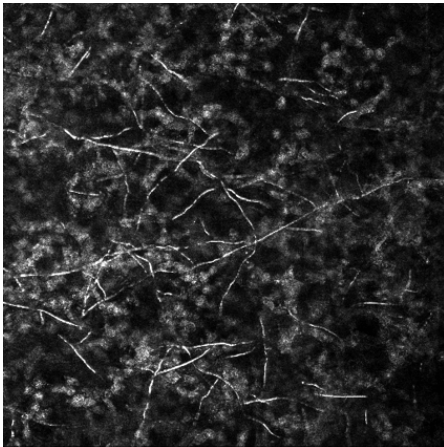
(Movie sequence of 1-30 frames/sec)



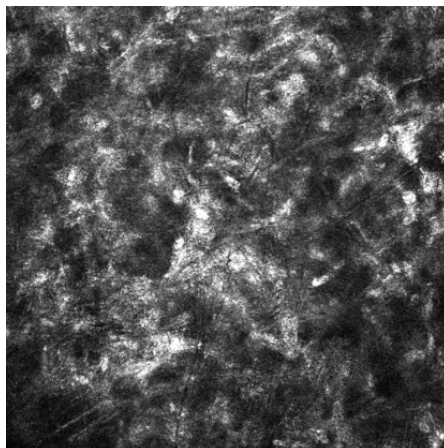
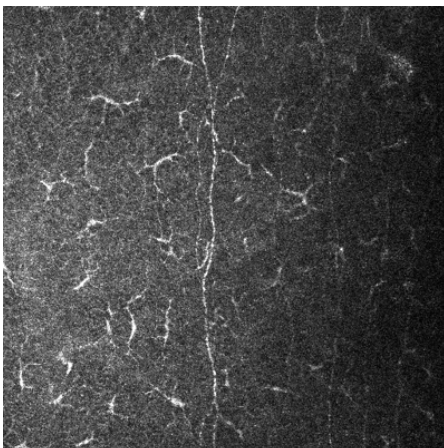
ANALYZE CORNEAL INFECTIONS

Heidelberg RCM enables microscopic examination of the corneal layers to support you in visualizing and monitoring corneal infections.

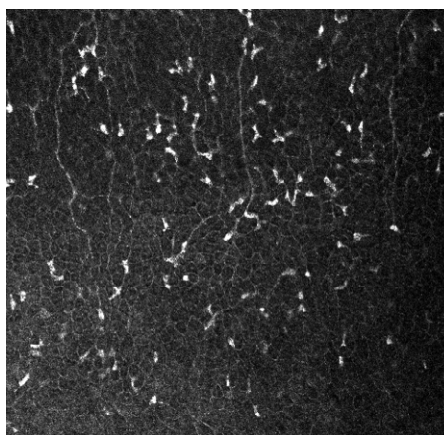
Fungal Keratitis



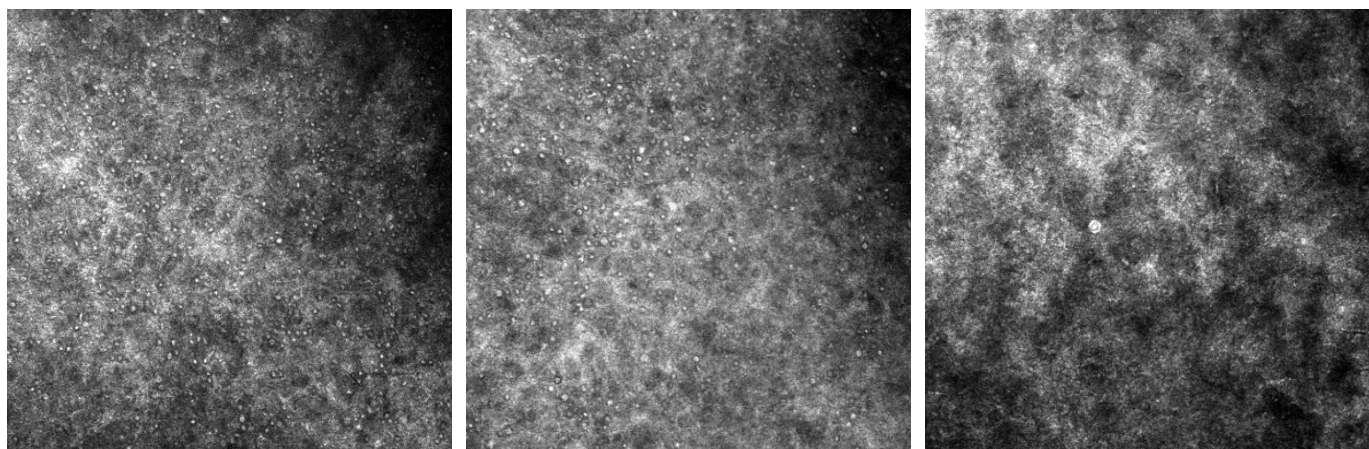
Viral Keratitis



Bacterial Keratitis

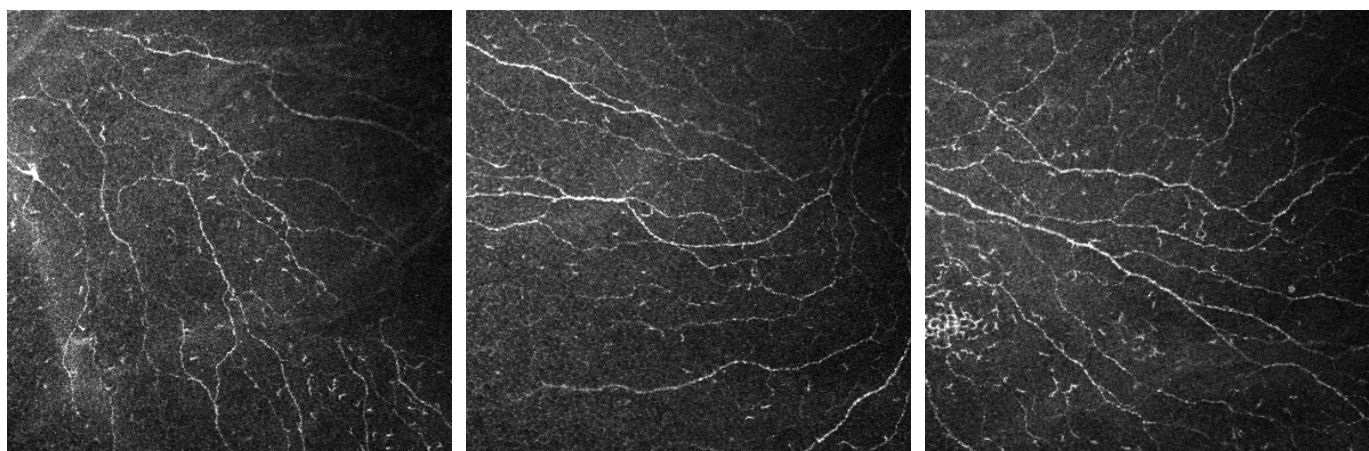


Acanthamoeba Keratitis



Assess Corneal Nerves

Heidelberg RCM assists you in examining the corneal subbasal nerve plexus. With high-resolution in vivo images, you can assess corneal nerve morphology in detail.



Visualize the Endothelium

With high-resolution in vivo imaging, you can visualize the corneal endothelium and assess its morphology.

