HIA+OCT SPECTIALIS®



COMBINED

- Multi-modality imaging device
 - High resolution infrared and red-free laser fundus imaging
 - Laser fluorescein and ICG angiography
 - BluePeakTM Blue Laser Autofluorescence for metabolic mapping
 - Spectral-Domain OCT (SD-OCT)
- Simultaneous dual-beam scanning for multi-modality imaging
- TruTrackTM Active Eye Tracking
- AutoRescanTM for precise follow-up exams
- Smallest measurable change of τ μm*
- Heidelberg Noise ReductionTM technology
- Automatic Real Time (ART) image stabilization
- 40,000 A-scans per second
- Peripheral OCT imaging and fundus widefield imaging
- Dynamic angiography and stereo imaging



Red-Free Imaging Blue light is used to create a "red-free" image highlighting specific structures such as the nerve fiber layer, epiretinal membranes, retinal folds, and cysts.



ICG Angiography Confocal laser ICG angiography reveals the details of the choroidal circulation and may help the clinician better understand cases unresponsive to anti-VEGF therapy. Dynamic imaging can distinctly reveal RAP (RCA) lesions that may not be visible with FA.



Fundus Autofluorescence Without the need for any dye, blue laser autofluorescence takes advantage of the fluorescent properties of lipofuscin, a key component of RPE metabolism. The characteristic patterns of autofluorescence can non-invasively reveal the retinal lesions such as CME extent of geographic atrophy or hereditary diseases such as Best's or Stargardt's.

Infrared Imaging

Using long wavelengths of laser light, infrared imaging captures fundus images in fine detail even without dilation. The deeper penetration of light, combined with the confocal principle, provides more distinct details of intraor CSCR. The lower level of light is better tolerated by elderly patients who may experience discomfort with flash photography.

Fluorescein Angiography Confocal laser angiography adds new dimensions to traditional fundus photography, providing dynamic imaging as the dye flows through the vasculature. The confocal

principle enables much finer

detail by blocking scattered

light.

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* Wolf-Schnurrbusch et al. Invest Ophthalm Vis Sci 2009; 50:3432-3437. Smallest Measureable Change is Central Retina Thickness multiplied by Coefficient of Variation. Results rounded to the nearest micron.



Multi-Modality Diagnostic Imaging



SPECTRALIS HRA+OCT – multi-modality imaging. SPECTRALIS is the fusion of confocal scanning laser fundus imaging and Spectral-Domain OCT. This dual-beam system uses the fundus image to actively guide the OCT scan in real-time creating a new type of imaging modality: *Tracking Laser Tomography.*

The **SPECTRALIS HRA+OCT** model combines SD-OCT with five distinct fundus imaging modalities including: Fluorescein angiography, ICG angiography, red-free and infrared imaging as well as blue laser autofluorescence.

Getting the full picture of disease is critical to understand complex pathologies. Multi-modality imaging offers deep insights into structure, function and metabolic activity of the retina and, consequently, benefits in patient flow, detection and management of disease. BluePeak – blue laser autofluorescence provides insight into the health of the RPE/Photoreceptor complex non-invasively without the need to inject any dye.

Technical Benefits

Multi-Modality Imaging Platform

- SD-OCT
- BluePeakTM Blue Laser Autofluorescence
- Infrared cSLO
- Red-Free cSLO
- Fluorescein angiography cSLO
- ICG angiography cSLO

Reliable OCT Scans

- 40,000 A-scans / second
- TruTrackTM Active Eye Tracking
- Simultaneous SD-OCT and cSLO imaging
- AutoRescanTM

High-Contrast Diagnostic OCT Images

- Heidelberg Noise ReductionTM
- Automatic Real Time (ART)
- 3.9 μm axial resolution (digital)
- 14 μm transverse resolution
- Up to 1,536 A-scans / B-scan
- Scan depth 1.9 mm

High-Quality Fundus Images

- Confocal scanning laser ophthalmoscope (cSLO)
- Simultaneous imaging
- Variable field of view (up to30°x30°)
- 5 μm / 11 μm isotropic resolution (High Resolution /High Speed Mode)

Widefield Imaging

- 55° widefield lens*
- ART widefield composite images (up to 165°)
- 150° widefield contact lens*



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