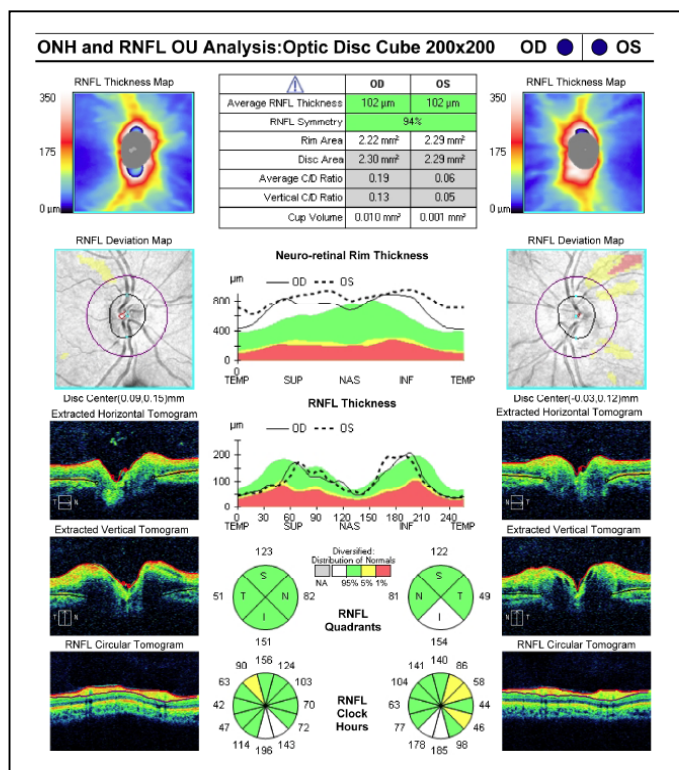


Overview

The UC Davis Eye Center hosts the Optical Coherence Tomography (OCT) and Visual Field Reading Centers to support clinical research. Co-Directors, John L. Keltner, M.D. and John S. Werner, Ph.D., have over 40 years of combined experience in ophthalmic research. The primary aims of the Reading Centers are to ensure, through rigorous quality control, the validity and integrity of OCT and visual field data.

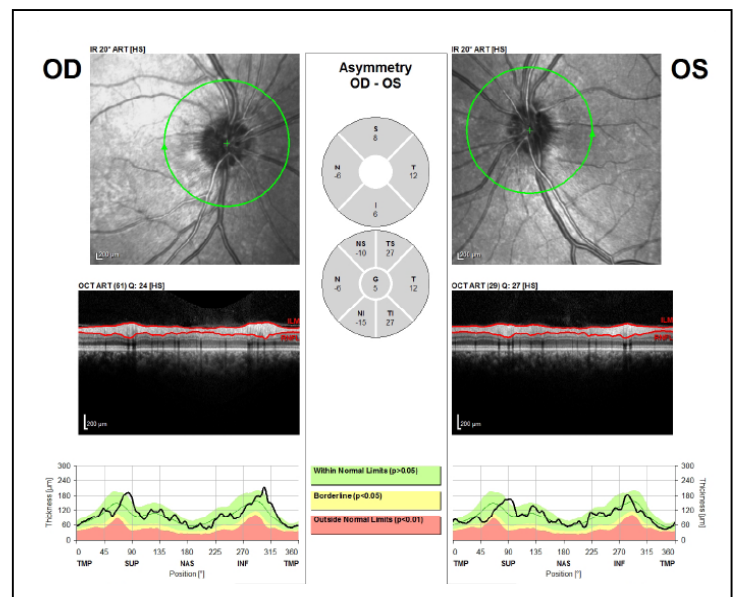
Optical Coherence Tomography (OCT) Reading Center

The UC Davis OCT Reading Center, under the direction of Drs. Keltner and Werner, is a comprehensive and collaborative Center consisting of the state-of-the-art equipment and expertise. The Reading Center is involved in industry and NIH-sponsored

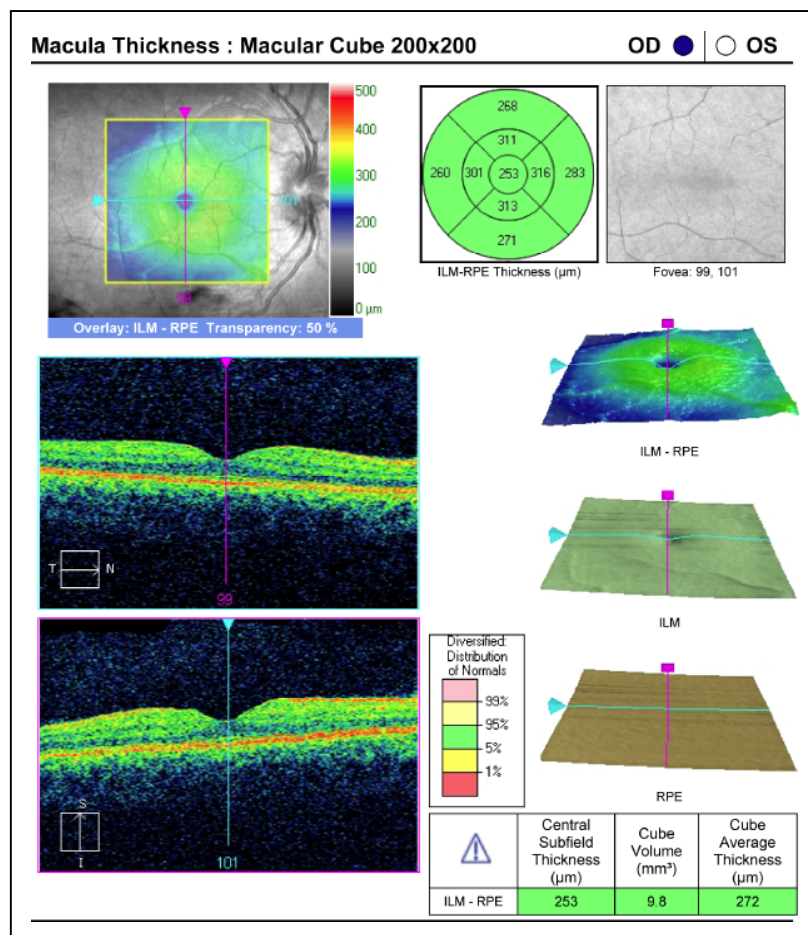
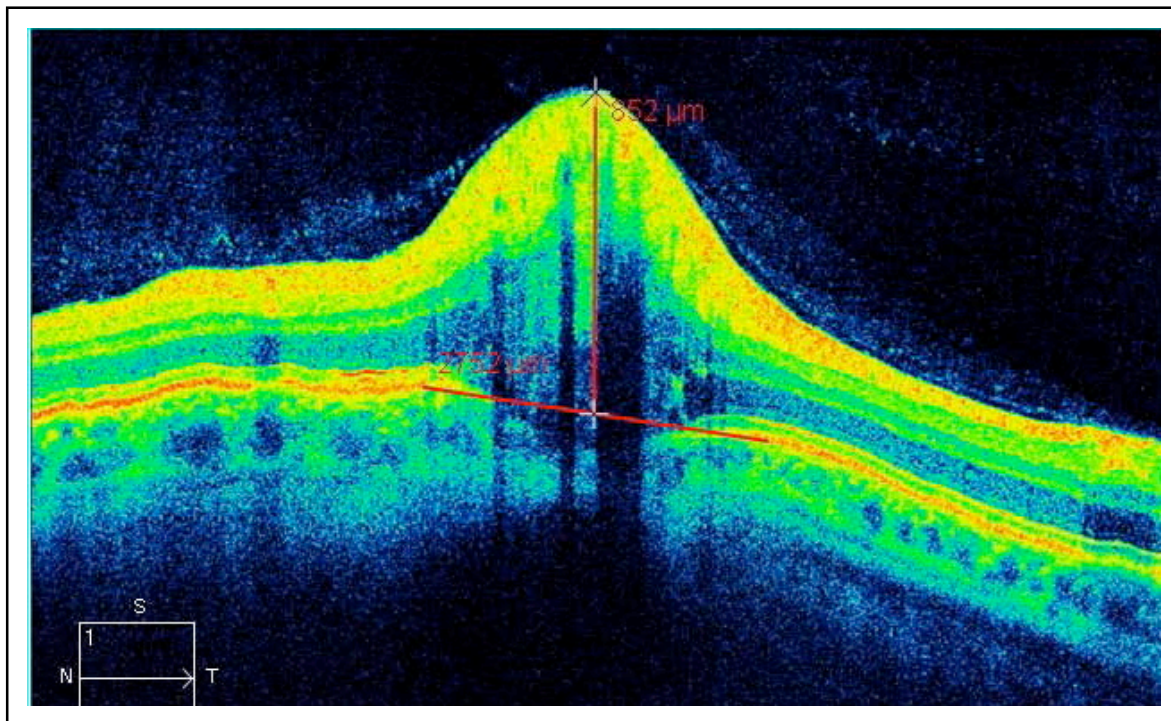


multicenter clinical trials and is dedicated to providing reliable, high quality data. The OCT expertise is buttressed by funding for a Bioengineering Research Partnership from the National Eye Institute. The Reading Center processes images from commercial instruments such as OCT3 (Zeiss Meditec) and Spectralis (Heidelberg Engineering) using the manufacturer's software as well as programs developed at UC Davis for image segmentation. To date, over 25,000 OCT scans from 3 multiple sclerosis trials have been received and processed by the Reading Center.

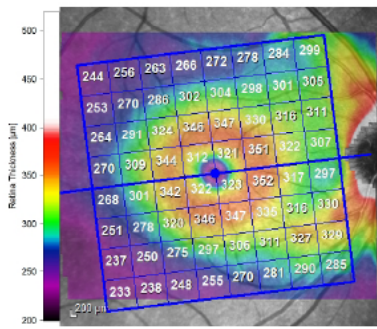
The importance of an OCT Reading Center for clinical trials is highlighted by recent publications indicating that overall retinal thickness and nerve fiber layer thickness using standard algorithms are incorrect a high percentage of time. Reliability of experienced readers and custom segmentation software provides quality control assessment needed for clinical trials. Using our custom software, it is possible to obtain precise measurements of structures that are not included in software from instrument manufacturers.



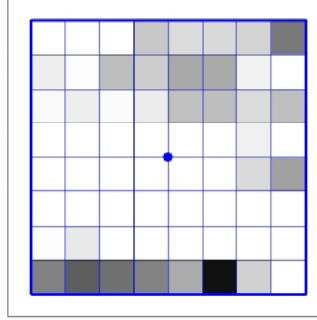
Our group also has extensive experience in measurement of contrast sensitivity and visual acuity using custom and standardized devices. We are prepared to assist in the calibration of devices used in clinical trials and to provide quality control across testing sites for studies involving measurement of contrast sensitivity and acuity.



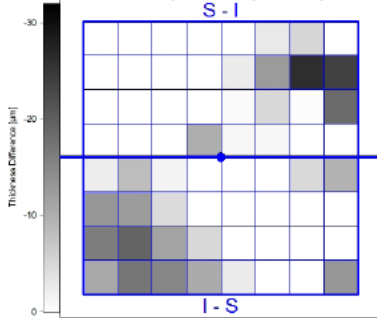
OD



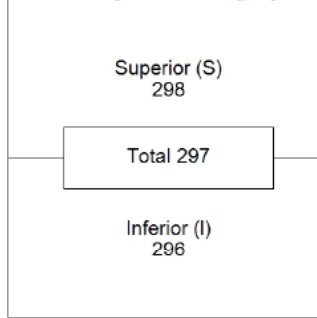
OD - OS Asymmetry



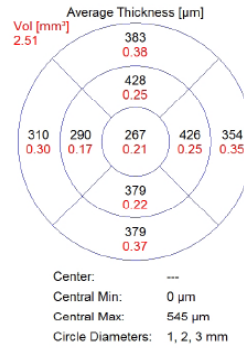
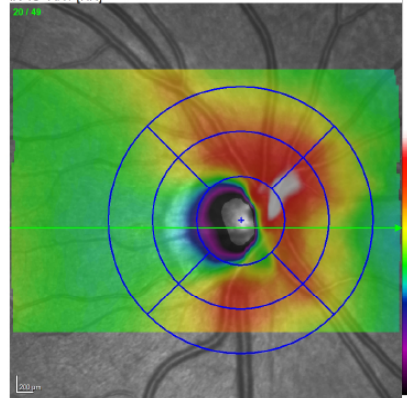
Hemisphere Asymmetry



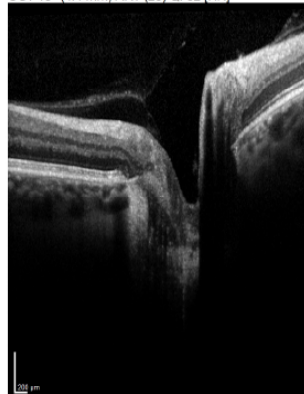
Average Thickness [µm]



IR 15° ART (HR)

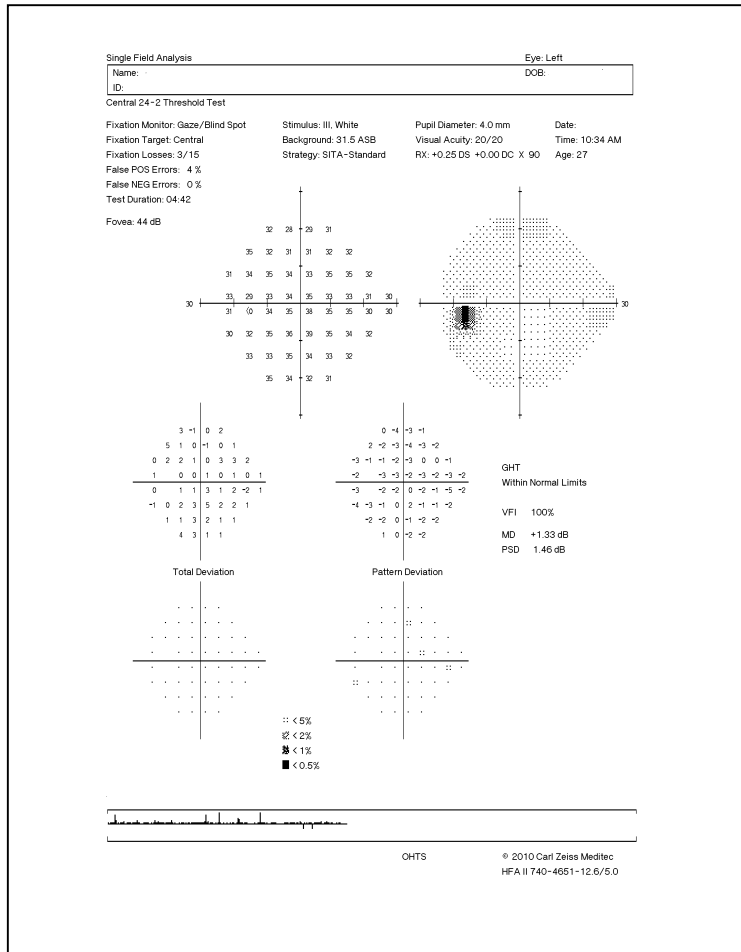


OCT 15° (4.4 mm) ART (25) Q: 32 [HR]



Visual Field Reading Center

Under the direction of Dr. John Keltner, our Visual Field Reading Center (VFRC) routinely conducts quality control assessment of visual field data, provides expertise in the collection and inspection of visual field data, and provides training, certification and continuous feedback regarding technician performance.



The Reading Center was developed by Dr. Keltner and Dr. Chris Johnson, now at the University of Iowa. They have collaborated for the past two decades and continue to work collaboratively on numerous Visual Field Reading Center projects. The VFRC continues to provide quality control in neuro-ophthalmic and glaucoma studies, federally funded by the National Eye Institute. In addition, the VFRC continues to be involved with multiple sclerosis clinical trials, funded by various pharmaceutical companies. To date, approximately 97,000 visual fields have been received, processed and monitored by the VFRC.

UC Davis has served as the VFRC for the Optic Neuritis

Treatment Trial (ONTT) since 1988 and the Ocular Hypertension Treatment Study (OHTS) since 1994. The OHTS was the largest, federally funded glaucoma clinical trial in the United States. Only 3.6% of the follow-up fields were unreliable, thus confirming the fact that strict quality control assessment procedures provide more reliable and valid visual field data. We have also been the Reading Center for the 15-year follow-up to the ONTT and have evaluated approximately 18,000 visual fields. More recently, we serve as the Reading Center to the Intracranial Idiopathic Hypertension Treatment Trial (IIHTT), studying the effects of different medications/diet on the swollen optic nerve.

For further information, please contact Dr. John Keltner (jkeltner@ucdavis.edu) or Dr. Jack Werner (jswerner@ucdavis.edu) at the UC Davis Eye Center.