



FRIDAY SEMINAR SERIES

Faculty Sponsor: Dr. Timothy Duong

Thomas E. Milner, Ph.D.

Marion E. Forsman Centennial

Professor in Engineering,

Biomedical Engineering Department,

The University of Texas at Austin

Austin, Texas

“Polarization Sensitive Optical Coherence Tomography for Early Diagnosis of Glaucoma”

Abstract: The objective of our research is the laboratory demonstration and clinical introduction of a noninvasive ophthalmologic imaging technology to characterize changes in the neurotubules of retinal ganglion cell (RGC) axons associated with the onset and progression of glaucoma. Although numerous damage mechanisms are under investigation in glaucoma research, the pathologic hallmark for glaucoma in human eyes is selective death of RGCs and accompanying degeneration of axonal neurotubules. Polarization-sensitive optical coherence tomography (PS-OCT) combines the high resolution cross-sectional imaging capability of optical coherence tomography (OCT) with the polarimetric-sensitivity of scanning laser polarimetry (SLP) to simultaneously measure properties of the retinal nerve fiber layer (RNFL). A clinical PS-OCT instrument has been demonstrated that can objectively and noninvasively monitor neurotubule density in the RNFL and may provide significant advantages in sensitivity and specificity over existing methods for diagnosis and monitoring of glaucoma.

Friday, September 11, 2009

12:00 noon (please note time change)

RIC Seminar Room (Rm. 2.534)

McDermott Clinical Science Building

8403 Floyd Curl Drive*

(*Please note: Floyd Curl entrance closed due to construction, enter on Medical Drive & Von Scheele)

Refreshments will be served

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