



## **L4H Seminar CHAO ZHOU 'Optical Biopsy using Optical Coherence Tomography (OCT) and Microscopy (OCM)'**

CHAO ZHOU  
Lehigh University, UNITED STATES

June 26, 2014

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Seminar, June 26, 2014, 12:00. Seminar Room

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Optical coherence tomography (OCT) is a powerful tool for assessing tissue architectural morphology. It enables three-dimensional (3D) imaging with resolutions approaching standard histopathology (a few microns), and it can be performed in vivo and in real-time without the need to remove and process specimens. Optical coherence microscopy (OCM) combines OCT with confocal microscopy in order to achieve high transverse resolutions,

thus enabling 3D visualization of cellular features. OCT has gradually become the standard-of-care to non-invasively evaluate retinal pathology in ophthalmology clinics. Recently, applications of OCT and OCM have started to grow in other clinical and scientific areas. In this seminar, recent technical advances (e.g. space-division multiplexing OCT), and novel applications using OCT and OCM for cancer diagnosis in pathology laboratory, investigation of heart development in *Drosophila*, and non-invasive evaluation of micro-engineered devices will be presented.

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**Hosted by Prof. Turgut Durduran**