

Lester Wolfe Workshop in Laser Biomedicine

“Light in the brain: neurodegeneration and neuroprotection”

In recent years two trends have led to growing concerns about the impact of traumatic and degenerative brain disorders on public health. One is the overall aging of the population now that many physical diseases can be successfully treated, and the second is the large number of returning blast-injured warriors with mild traumatic brain injury and post-traumatic stress disorder. This timely workshop will look at the role of optics and light in non-invasively diagnosing, imaging and treating these traumatic and degenerative diseases of the brain.

Shedding light on neurodegenerative processes in Alzheimer’s disease

Tara L. Spires, DPhil, Assistant Professor of Neurology, Harvard Medical School

Functional Monitoring of Blood Flow and Concentration Dynamics for

Managing Brain Injury

Arjun G. Yodh, James M. Skinner Professor of Science, Department of Physics & Astronomy, University of Pennsylvania

Label-free Spectroscopic Imaging of white matter injury and repair

Ji-Xin Cheng, Professor, Weldon School of Biomedical Engineering, Department of Chemistry, Center for Cancer Research, Purdue University

Transcranial phototherapy for traumatic brain injury and beyond

Michael R. Hamblin, PhD, Associate Professor of Dermatology, Harvard Medical School

Tuesday, April 30, 2013, 3:30-6:00 PM

Massachusetts General Hospital, Simches Research Building, 3rd Fl, Rm 3110

185 Cambridge Street, Boston, MA

Refreshments served at 3:00 PM, Room 3130

Sponsored by the G. R. Harrison Spectroscopy Laboratory, MIT, MGH Wellman Center for Photomedicine, and the Harvard-MIT Division of Health Sciences and Technology