

Lester Wolfe Workshop in Laser Biomedicine

“Neurophotronics”

Neurophotronics is a hot growth area of research involving both optical imaging and optical stimulation of the brain. Moreover the NIH recently announced the BRAIN Initiative (Brain Research through Advancing Innovative Neurotechnologies). Light and biophotonics is expected to play a major role in BRAIN. Optogenetics has captured the world’s imagination as the videos of remotely controlled living mice have “gone viral”. Clinical applications of this innovative basic research are expected to include the predicted epidemic of Alzheimer’s disease and dementia affecting the aging population.

Large-Scale High-Throughput Optical Imaging and Stimulation

Peter Saggau, PhD, Professor, Department of Neuroscience, Baylor College of Medicine

Connectomics

Jeff Lichtman, MD, PhD, Jeremy R. Knowles Professor of Molecular and Cellular Biology, Department of Molecular and Cellular Biology, Harvard University

Optical Tools for Mapping and Controlling the Brain

Ed Boyden, PhD, Leader, Synthetic Neurobiology Group, Associate Professor and AT&T Chair, MIT Media Lab and McGovern Institute, Departments of Biological Engineering and Brain and Cognitive Sciences, Massachusetts Institute of Technology

2-photon microscopy in living brain of Alzheimer mouse models

Brian J. Bacsikai, PhD, Neurobiologist, Massachusetts General Hospital, Professor, Harvard Medical School

Tuesday, April 8, 2014, 3:30-6:00 PM
Massachusetts General Hospital
Simches Research Building, 3rd Floor, Room 3110
185 Cambridge Street, Boston, MA

Refreshments served at 3:00 PM, Room 3110

Sponsored by the MIT Laser Biomedical Research Center, MIT, MGH Wellman Center for Photomedicine, and the Harvard-MIT Division of Health Sciences and Technology