

Lester Wolfe Workshop in Laser Biomedicine

“Tissue Engineering, Stem Cells, and Organ Replacement: Building a Better Human with light”

The discovery of stem cells with their potential to proliferate and differentiate into many kinds of different cell-types, has raised the possibility of artificially replacing damaged or missing organs and tissues. The Spring Lester Wolfe Workshop will examine some of the roles that light can play in this grand endeavor. These roles include fractional lasers, photobiomodulation, optical monitoring, and multiphoton mediated fabrication.

From Fractional Lasers to Tissue Copying

Rox Anderson, MD, Director, Wellman Center, Massachusetts General Hospital, Professor of Dermatology, Harvard Medical School

Light Engineered Tissue Regeneration: Directed Photodifferentiation of Stem Cells via TGF- β 1

Praveen Arany, DDS, PhD, Assistant Professor, Department of Oral Biology, School of Dental Medicine, University at Buffalo

Optical monitoring of engineered tissue development and function

Irene Georgakoudi, PhD, Associate Professor, Department of Biomedical Engineering, Tufts University

Investigation of cell-matrix interactions in ovarian cancer via multiphoton excited fabrication of 3D image-based biomimetic stromal models

Paul J. Campagnola, PhD, Professor in Biomedical Engineering and Medical Physics, University of Wisconsin-Madison

Tuesday, May 3, 2016, 4:00-6:00 PM
Massachusetts General Hospital
Simches Research Building, 3rd Floor, Room 3110
185 Cambridge Street, Boston, MA

Refreshments served at 3:30 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