

Poster Session B

Amaury Badon	Boston University	<i>Volumetric imaging with multi-Z confocal microscopy</i>
Boy Braaf	Wellman Center, MGH and HMS	<i>Retinal blood flow quantification from optical coherence tomography speckle intensity fluctuations using neural networks</i>
Haimi Tang	Worcester Polytechnic Institute	<i>Preliminary Investigations of Rupture of Human Tympanic Membrane subjected to High Pressure Loads</i>
Jean-Marc Tsang	Boston University	<i>Pseudo-volumetric fluorescence endomicroscopy with a fiber bundle</i>
Kenichiro Otsuka	Wellman Center, MGH and HMS	<i>Characterizing Coronary Plaque Composition and Stability in Patients with Intravascular Polarimetry</i>
Konrad Wojciech Walek	Brown University	<i>Longitudinal OCT Cortex Imaging for Detection of Early Vascular Changes in Alzheimer's Disease</i>
Hasan Yilmaz	Yale	<i>Customizing speckle patterns</i>
Patrick Breeding	University of Maine	<i>Optical Metabolic Investigation of Lobster Hemocyanin Anti-Cancer Effects Using a Home-Built Two-Photon System</i>
Payam Razavi	Worcester Polytechnic Institute	<i>High-speed shape and transient response measurements of tympanic membrane</i>
Sheldon J.J. Kwok	Harvard Medical School and MIT	<i>Wavelength-encoded microlasers for massively-multiplexed cell tagging</i>
Sinyoung Jeong	Wellman Center, MGH and HMS	<i>Visualization of drug distribution of a topical minocycline gel in human facial skin</i>
Szu-Yu Lee	Wellman Center, MGH and HMS	<i>Toward flexible MMF endoscopy with a proximal calibration method</i>
Timothy Weber	Boston University	<i>Ocular fundus imaging with transmitted light</i>
Soroush Shabahang	Wellman Center, MGH and HMS	<i>Nonlinear passive earplugs for preventing blast injury of the ear</i>

2018 Program Committee:

Amira Eltony
Mohsen Erfanzadeh
Jian Ren



Center for Biomedical
OCT Research



Wellman Center
for Photomedicine

HARVARD
MEDICAL
SCHOOL

NORTHEAST SYMPOSIUM ON BIOMEDICAL OPTICS

Schedule:

8:30	Breakfast
9:00	Director's Introduction – Brett Bouma (MGH-Wellman)
9:15	Session 1 – <i>Miniaturized optical probes</i>
10:30	Break / Discussion
10:45	Session 2 – <i>Emerging techniques in optical imaging</i>
11:35	Panel on Career-Advancement Awards
12:45	Lunch / Discussion
13:15	Session 3 – <i>Neuro-imaging and optical modulation of brain</i>
14:55	Break / Discussion and poster set-up
15:15	Poster Session A and Reception
16:05	Switch-over posters
16:10	Poster Session B and Reception
17:00	Concluding Remarks and Awards

October 24th, 2018
Cambridge, MA, USA

Session 1 – Miniaturized optical probes

Chair: David Adams (MGH)

Hamid Pahlevaninezhad	Harvard, MGH	<i>Nano-optic endoscope for high-resolution optical coherence tomography</i>
Raphaël Maltais-Tariant	Polytechnique Montréal	<i>Toward co-localized OCT surveillance of laser therapy using real-time speckle decorrelation</i>
Jie Hui	Boston University	<i>Intravascular Photoacoustic Imaging of Lipid-laden Plaque: Technical Development towards Clinical Translation</i>

Session 2 – Emerging techniques in optical imaging

Chair: Allison Marn (Boston University)

Hasan Yilmaz	Yale	<i>Coherent control of light transmission through turbid media</i>
Vijay Raj Singh	MIT	<i>Studying nucleic and plasma membrane mechanics of eukaryotic cells using confocal reflectance interferometric microscopy</i>

Panel on Career-Advancement Awards

Jonghwan Lee (Brown)

Girgis Obaid (Wellman Center, MGH and HMS)

Néstor Uribe-Patarroyo (Wellman Center, MGH and HMS)

Pelham Keahey (Wellman Center, MGH and HMS)

Session 3 – Neuro-imaging and optical modulation of brain

Chair: Chiara Maffei (Martinos Center, MGH and HMS)

Jonghwan Lee	Brown	<i>Label-Free Imaging and Genetics-Free Modulation of Brain</i>
Morris Vanegas	Northeastern University	<i>Towards an optical brain functional imaging platform for monitoring stroke recovery</i>
Murat Yildirim	MIT	<i>Imaging neuronal responses through all cortical layers and subplate of visual cortex in awake mice with optimized three-photon microscopy</i>
Xinge Li	Boston University	<i>The role of Mirror Neuron System in encoding motor complexity</i>

Poster Session A

Baoqiang Li	Martinos Center, MGH and HMS	<i>Two-photon imaging of capillary flow in mouse brain reveals vulnerability of cerebral white-matter to hypoperfusion</i>
Bin Deng	Martinos Center, MGH and HMS	<i>Elucidating breast cancer pathophysiology using integrated dynamic DOT and digital breast tomosynthesis</i>
Jong Park	MIT	<i>Wide-Field Two-Photon Microscopy with Enhanced Axial Resolution and Imaging Depth</i>
Kyungsik Eom	Brown University	<i>Plasmonic gold nanorods assisted near-infrared neural stimulation of retinal ganglion cell for retinal prosthetics</i>
Maha Yaqoob	MIT	<i>Investigating cellular uptake dynamics of single-walled carbon nanotubes by high-speed confocal Raman microscopy</i>
Morris Vanegas	Northeastern University	<i>Towards a fiberless, modular, and wearable fNIRS system with built-in 3D self-calibrating orientation sensor network</i>
Negin Zaraee	Boston University	<i>Single particle Interferometric Imaging sensor for sensitive and rapid label-free bacteria detection</i>
Pallavi Doradla	Wellman Center, MGH and HMS	<i>Multifactorial Stress Equation: Prediction of Coronary Plaque Rupture</i>
Parisa Farzam	Martinos Center, MGH and HMS	<i>Diffuse Correlation Spectroscopy for Cerebral Hemodynamics Monitoring During Mechanical Thrombectomy in Acute Stroke Patients</i>
Sabina Stefan	Brown University	<i>Determination of confocal profile and curved focal plane for OCT mapping of the attenuation coefficient</i>
Syeda Tabassum	Boston University	<i>Investigate optical and molecular biomarkers of cancer treatment response using Spatial Frequency Domain Imaging pre-clinically</i>
Yi Xue	MIT	<i>Scanless volumetric imaging by selective access multi-foci multiphoton microscopy</i>
Yingchun Cao	Boston University	<i>Depth-resolved mapping of lipids in arterial wall in vivo by intravascular photoacoustic tomography</i>
Zeinab Hajjarian	Wellman Center, MGH and HMS	<i>Laser Speckle Micro-rheology for studying the biomechanics of invasion in Breast Carcinoma</i>