

Abiotic-Biotic Interfaces for Ophthalmology Symposium, Day 1: January 21, 2021

For Information and to Register Visit: ibt.usc.edu/symposium

**All times are Pacific Standard Time*

7:00 - 8:25 AM: Symposium Opening Ceremony & Session 1: Photopolymers and Drug Delivery

7:00-7:15 Opening Remarks

- Mark Humayun, MD, PhD, welcome and introductions
- USC President Carol L. Folt, PhD, remarks
- Dr. Allen and Charlotte Ginsburg, welcome message

7:15 - 7:40: Dan Schwartz, MD, Session 1 Plenary: "The Role of Physician Innovators"

7:40 - 8:25: Session 1: Panel discussion

Session 1 Panelists and Pre-Recorded Presentations

- Dan Schwartz, MD, UCSF & Caltech, Session 1 Plenary: "The Role of Physician Innovators"
- Justin Hanes, PhD, Johns Hopkins: "Polymeric Drug Delivery to the Eye: Concept to Clinical Success Stories"
- Erin Lavik, MS, ScD, UMBC: "Nanotechnology for Ocular Drug Delivery"
- Nicos Petasis, PhD, USC: "Ophthalmic Molecular Therapeutics"
- Stan Louie, PharmD, USC: "Development of Ocular Therapeutics and 'Omics'"
- Amy Wang, PhD, President, Enspire Bio, Inc.
- Andy Corley, Principal, Yelroc Consulting, Inc.
- Ron Kurtz, MD, President and CEO, RxSight, Inc
- Ram Palanki, PharmD, Senior Vice President, Commercial Strategy & Operations, REGENXBIO Inc.

8:25 - 8:30 AM: Break

8:30 - 10:10 AM: Session 2: Bioelectronic Implants

- Mark Humayun, MD, PhD, welcome and introductions
- Yu-Chong Tai, PhD, Keynote: "bio-MEMS for Ophthalmology"
- Dr. Allen and Charlotte Ginsburg, Lifetime Achievement Award, Vision Research Prize Message
- Presentation of the Ginsburg Lifetime Achievement Award, Vision Research Prize to Yu-Chong Tai

9:25 - 10:10: Session 2: Panel Discussion

Session 2 Panelists and Pre-Recorded Presentations

- Yu-Chong Tai, PhD, Caltech, Keynote Lecture: "bio-MEMS for Ophthalmology"
- Manuel Monge, MS, PhD, USC: "Data Transfer for Implants and Wearables"
- James Weiland, PhD, UMich: "Retinal Responses to Electrical Stimulation"
- Lan Yue, PhD, USC: "Bioelectronic Color Vision"
- Marco Zarbin, MD, PhD, Rutgers: "Treating Blindness at the Nanoscale: Nanotechnologies as Treatments for Retinal Blindness"
- Arup Roy, PhD, Consultant, Second Sight Medical Products, Inc.
- Didier Sagan, Vice President of Engineering, Golden Eye Bionics, LLC.
- Terry Dagnon, Chief Operating Officer, Outlook Therapeutics
- Brooke Basinger, PhD, Chief of Staff and Head of Program Management for Devices, Verily

10:10 - 10:15 AM: Break and transition to Poster Session

10:15 - 11:30 AM: Day 1 Poster Session and Adjournment. Poster presenters give brief poster overviews

**All times are Pacific Standard Time*

7:00 - 8:20 AM: Symposium Opening Ceremony & Session 3: Wearable Electronics and Data Analysis

7:00-7:10 Opening Remarks

- Mark Humayun, MD, PhD, welcome and introductions
- Charles F. Zukoski, PhD, USC Provost and Senior Vice President for Academic Affairs, remarks

7:10 - 7:40: Bodour Salhia, PhD, Session 3 Plenary: "Epigenetic Changes in Retina in Response to Electrical Stimulation"

7:40 - 8:25: Session 3: Panel Discussion

Session 3 Panelists and Pre-Recorded Presentations

- Bodour Salhia, PhD, USC, Session 3 Plenary: "Epigenetic Changes in Retina in Response to Electrical Stimulation"
- Gianluca Lazzi, PhD, MBA, USC: "Electromagnetic Fields at the Retina from Implantable and Wearable Electronics"
- Shrikanth Narayanan, MS, PhD, USC: "Human-Centered Multimodal Artificial Intelligence: Clinical Application Possibilities for Multimodal Sensor Data"
- Qifa Zhou, PhD, USC: "Therapeutic Ultrasound for the Eye"
- Mikhail Shapiro, PhD, Caltech: "Ultrasound Technologies for Non-Invasive Imaging and Control of Neural Activity"
- Cyrus Shahabi, MS, PhD, USC: "Wearable Data Acquisition and Analysis for Health Applications"
- Andrew Urazaki, President, Urazaki, Corp.
- Bradford A. Zakes, President & CEO, Cerevast Medical, Inc.
- Christian Gutierrez, PhD, Hardware Engineer, Verily
- Kyle Morrison, President, Sonic Concepts

8:25 - 8:30 AM: Break

8:30 - 10:10 AM: Session 4: Bioengineered Scaffolds

- Mark Humayun, MD, PhD, welcome and introductions

8:40 - 9:10: Dennis O. Clegg, PhD, Session 4 Plenary: "Development of Instructive Scaffolds for Implantation of Stem Cells"

9:10 - 9:55: Panel Discussion

Session 4 Panelists and Pre-Recorded Presentations

- Dennis O. Clegg, PhD, UC Santa Barbara, Session 4 Plenary: "Development of Instructive Scaffolds for Implantation of Stem Cells"
- Kapil Bharti, PhD, NIH, National Eye Institute: "Autologous iPS Cell-Based Therapy for Macular Degeneration: From BENCH-TO-BENCHSIDE"
- Amir H. Kashani, MD, PhD, Johns Hopkins: "Clinical Implementation of an Ultrathin Stem-Cell Derived RPE Monolayer in Phase 1/2a Clinical Trial for Geographic Atrophy"
- Raymond Iezzi, Jr., MD, Mayo Clinic: "Autologous Photoreceptor Sheet Transplantation using Femtosecond Laser Assisted Retinal Ablation (FLAIR)"
- Jane Lebkowski, PhD, President, Regenerative Patch Technologies
- Pete Adamson, Vice President and Retinal Disease Area Stronghold Leader, Janssen Research and Development
- Delbert L. White, President, Leap Biomed Innovators, LLC
- Melissa Carpenter, PhD, President, Carpenter Group Consulting

9:55 - 10:05 AM: Break and transition to Poster Session

10:05 - 11:30 AM: Day 2 Poster Session, Best Poster Award, and Adjournment

11:30 AM - 12:30 PM: Closed-Door Session