Wednesday, September 4

8:00 a.m. – 9:00 a.m.
Check In and Continental Breakfast

9:00 a.m. – 4:00 p.m.
BIOINTERFACE WORKSHOP
IMPLANTABLE SENSORS
Chair: Roy Biran, W.L. Gore & Associates, Inc.

David Gough, University of California San Diego
“Tissue-implant interface for continuous long-term glucose and oxygen sensors”

Ted Lee, Dexcom
“Foreign body response impact on CGM biosensors”

Janet Tamada, J Tamada Consulting
“Profusa’s subcutaneous hydrogel sensors for monitoring of small molecules”

Ben Coppola, Abbott
“Miniature implantable biosensor for diagnosis of cardiac arrhythmias”

Florian Solzbacher, University of Utah

Rohit Sharma, Applied Biosensors

4:00 p.m. – 4:30 p.m.
Applied Technology Workshop

4:30 p.m. – 5:15 p.m.
KEYNOTE LECTURE
Ali Khademhosseini, University of California Los Angeles
“Nano- and microfabricated hydrogels for regenerative engineering”

6:30 p.m. – 8:30 p.m.
SOCIAL MIXER
The Spur Bar & Grill

Thursday, September 5

7:30 a.m. – 8:15 a.m.
Continental Breakfast

8:15 a.m. – 8:30 a.m.
President’s Welcome, Rob Kellar, Development Engineering Sciences, LLC

8:30 a.m. – 10:00 a.m.
SESSION 1: SURFACE MODIFICATIONS AND COATINGS
Co-Chair: Courtney Kay, Elkem
Co-Chair: Lijun Zou, W.L. Gore & Associates, Inc.

Invited Speaker: Mathew T Mathew,
University of Illinois College of Biomedical Sciences
“Tribocorrosion aspects of biomedical implant coatings/surface modifications: progresses and new directions”

Jonathan Zhang, LiquiGlide, Inc.
“Reducing device-associated complications of vascular access devices with liquid-imregnated surfaces”

Bob Hergenrother, BioCoat, Inc.
“Performance evaluation of lubricious coatings for vascular catheters”

Jennifer Martinez, Northern Arizona University
“Controlling biointerfaces through genetically engineered polymers”

10:00 a.m. – 10:30 a.m.
Exhibitor Break and Poster Session
**Thursday, September 5 Continued**

10:30 a.m. – 12:00 p.m.
**SESSION 2: TISSUE ENGINEERING AND REGENERATIVE MEDICINE**
*Chair: Rob Diller, Axolotl Biologix*

Invited Speaker: **Stuart Williams**, Bioficial Organs, LLC.
“Surface modification of biomaterials to support the formation of new blood vessels”

**Jed Johnson**, Nanofiber Solutions
“Nanofiber scaffolds: enabling regenerative medicine”

**Rick Murphy**, Vascudyne
“Engineered tissue for bypass graft and other cardiology applications”

**Mary Beth Monroe**, Syracuse Biomaterials Institute
“Shape memory polymer foams for traumatic wound healing”

12:00 p.m. – 1:30 p.m.
**LUNCH PRESENTATION OF THE EXCELLENCE IN SURFACE SCIENCE AWARD**

1:30 p.m. – 3:00 p.m.
**SESSION 3: OPHTHALMIC**
*Co-Chair: Chander Chawla, DSM Biomedical*  
*Co-Chair, Joe Chinn, J Chinn LLC*

Invited Speaker: **Mark Byrne**, Rowan University
“The future is now – increased efficacy of sustained ophthalmic drug delivery via the ocular biointerface”

**Robert Tucker**, Alcon Vision
“Surface characterization methods developed to optimize the “Smart Surface™” Chemistry for Precision1™

**Christian Gutierrez**, Verily Life Sciences
“Electronic interfaces for Smart Contact Lenses: Applications and Concepts”

**Talena Rambarran**, McMaster University
“Hyaluronic acid releasing contact lenses for improved lens comfort”

3:00 p.m. – 3:30 p.m. BREAK

3:30 p.m. – 4:00 p.m.
**SESSION 4: POINT COUNTERPOINT**
*Chair: Joshua Schmidt, SenzaGen Inc.*
“Sensor vs Regenerative”

5:00 p.m. – 7:00 p.m.
Reception Featuring the Academic Poster Competition

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2019 Program Committee

**Timothy Becker**, Northern Arizona University  
**Chander Chawla**, DSM Biomedical  
**Joe Chinn**, J Chinn LLC  
**Angela DiCicco**, Verily Life Sciences  
**Rob Diller**, Axolotl Biologix  
**Christopher Jenney**, Abbott  
**Mallika Kamarajugadda**, Medtronic, plc  
**Courtney Kay**, Elkem Silicones  
**Robert Kellar**, Development Engineering Sciences, LLC  
**Landon Nash**, Shape Memory Medical Inc.  
**Shane Parnell**, Dexcom  
**Melissa Reynolds**, Colorado State University  
**Joshua Schmidt**, SenzaGen, Inc.  
**Bill Theilacker**, Medtronic, plc  
**Lijun Zou**, W.L. Gore & Associates, Inc.

ATTEND BIOINTERFACE

Register Online Today at SURFACES.ORG
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Friday, September 6

8:00 a.m. – 8:30 a.m.  
Continental Breakfast

8:30 a.m. – 10:00 a.m.  
SESSION 5: NEUROVASCULAR-NEURO DEVICES  
Co-Chair: Tim Becker, Northern Arizona University  
Co-Chair: Landon Nash, Shape Memory Medical  
Session Sponsor: Shape Memory Medical

Invited Speaker: Daryl R. Kipke, President and CEO, NeuroNexus  
“Probe design considerations for neural interface research”

Rami Tzafriri, CBSET  
“Swine clot model for the evaluation of mechanical thrombectomy devices”

Christopher Settanni, Northern Arizona University  
“In vitro neurovascular model development for liquid embolic implant simulation”

Duncan Maitland, Texas A&M University  
“Pre-clinical and clinical experience with a biodegradable polyurethane foam-coated-coil occlusion device”

10:00 a.m. – 11:00 a.m. EXHIBITOR BREAK

11:00 a.m. – 12:30 p.m.  
SESSION 6: CARDIOVASCULAR  
Chair: Mallika Kamarajugadda, Medtronic, plc.

Invited Speaker: Shiril Sivan, FDA (U.S. Food & Drug Administration)  
“Technical considerations for non-clinical assessment of medical devices containing Nitinol”

Marja Bulte-terMeer, Radboud University Medical Center, Nijmegan, Netherlands  
“Localized synthesis of drugs using iron containing metallic implants”

Kevin Tingey, W.L. Gore & Associates, Inc.  
“Establishing and utilizing standards in the development & testing of cardiovascular implants”

Rami Tzafriri, CBSET  
“Quantitative preclinical insights into procedural and anatomical determinants of multi-electrode renal denervation efficacy”

12:30 p.m. – 1:30 p.m.  
SIBF Awards Luncheon

1:30 p.m. - 1:50 p.m.  
SURFACES IN BIOMATERIALS FOUNDATION ANNUAL BUSINESS MEETING

1:50 p.m. – 3:20 p.m.  
SESSION 7: ADVANCES IN MEDICAL DEVICE IMAGING (FROM DEVICE DEVELOPMENT TO DEPLOYMENT)  
Co-Chair: Mallika Kamarajugadda, Medtronic, plc.  
Co-Chair: Bill Theilacker, Medtronic, plc.

Invited Speaker: Chao Huang, University of Utah  
“Subsurface imaging of cardiac microstructure using fiber-optics confocal microscopy”

Shivram Sridhar, Medtronic, Inc.  
“Comparison of X-ray m-Tomography and SEM imaging techniques for characterization of materials used in medical devices”

Bilal Malik, QT Ultrasound  
“Breast and whole body imaging with transmission ultrasound”

Tyler Thompson, University of Utah  
“Quantitative analysis of feather patterns in pigeons via computer vision”

3:20 p.m. – 3:30 p.m. BREAK
Friday, September 6 Continued

3:30 p.m. – 5:00 p.m.  
SESSION 8: CHEMICAL AND BIOLOGICAL TESTING OF MEDICAL DEVICES  
Chair: Joshua Schmidt, SenzaGen Inc.

Invited Speaker: **Maud Gorbet**, University of Waterloo  
“Towards biocompatibility: assessing cell-material interactions with medical devices in vitro”

**Hailey Hibbard**, Colorado State University  
“Designing novel compounds for antibacterial medical device coatings to detect bacteria”

**Mourad Rahi**, American Preclinical Services  
“Extractables and leachables: agonies and thrills of Es & Ls”

**Mehdi Razavi**, Texas Heart Institute  
“From Benchtop to Market: A Clinician Perspective on Device Innovation and Validation”

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