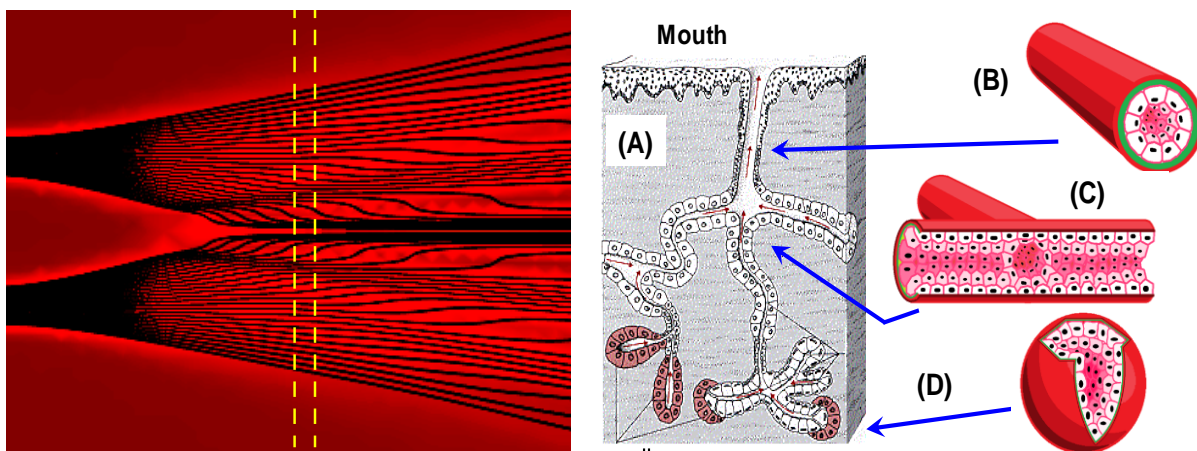


University at Albany-Colleges of Nanoscale Science and Engineering Combined Symposium

Friday, March 3 to Saturday, March 4, 2017



Friday March 3, 2017 NFS-Auditorium, CNSE

- 9:00 Welcome & Introduction** John Welch and Robert Brainard
9:05 Introductory Remarks Michael Liehr, VPR, SUNY Polytechnic Institute (SPI)

9:20 Session 1. Chair: John Welch

- P1 The Role of Metals in Olfaction**
Eric Block Chemistry UAlbany
- P2 With an Eye towards Personalized Medicine: Measuring Cell Stress *in Vitro* and *in Vivo***
Thomas Begley Biology CNSE
- P3 Approaches for Salivary Gland Regenerative Therapies**
Melinda Larsen Biology UAlbany
- P4 Metabolic and Process Engineering for Production of a Bioengineered Heparin**
Susan Sharfstein Biology CNSE

10:40 Break (30 min)

11:10 Session 2. Chair: Susan Sharfstein

- P5 Writers, Readers and Erasers: When Erasers Control Cellular Signaling**
Ben Boivin Biology CNSE
- P6 Merging Radical Signaling and Calcium Strain**
J. Andre Melendez Biology CNSE
- P7 Indole Functionalization through Organic Photoredox Catalysis**
Ting Wang Chemistry UAlbany
- P8 EUV Resists Based on Transition Metal Oxalate Complexes**
Dan Freedman Chemistry SUNY New Paltz

12:30 No-Host Lunch: NanoCafe / Tours of CNSE Metrology Instrumentation

1:30 Session 3. Chair: Carolyn MacDonald

- P9 Applications of Nanopore Technology to Particle and Nuclear Physics**
Matthew Szydagis Physics UAlbany
- P10 Economic Drivers of Technological Change in the Semiconductor Industry**
Unni Pillai Economics CNSE
- P11 Graphene: Convergence of Different Disciplines in Physics**
Ji Ung Lee Physics CNSE
- P12 Ultrafast and Efficient Scintillation Detector Based on InAs/GaAs Quantum Dots**
Serge Oktyabrsky Physics CNSE

2:50 Break (30 min)

3:20 Session 4. Chair: Ji Ung Lee

- P13 Nanoscale Schotky Barrier Visualization**
Vincent LaBella Physics CNSE
- P14 Propagation-Based Phase Imaging**
Jonathan Petrucci Physics UAlbany
- P15 Fourier Transform Based X-Ray Phase Imaging**
Carolyn MacDonald Physics UAlbany
- P16 Improving Dimensional Measurement using Plasmonic Gratings**
Alain Diebold Physics CNSE

4:40-7PM Cash-Bar Reception and Poster Session

Poster Session. Chairs: Annalisa Scimemi and Kathleen Dunn

- P32 Occupational Exposure Assessment for the Nanotechnology Workforce**
Sara Brenner Biology CNSE

Students and Faculty are invited to submit posters.
Please send titles to Robert Brainard at RBrainard@SUNYPoly.edu

Saturday March 4, 2017 D'Ambra Auditorium, Life-Sciences, University at Albany

- 9:00 Welcome & Introduction** John Welch and Robert Brainard
- 9:05 Introductory Remarks** James Diaz, VPR, University at Albany

9:20 Session 5. Chair: Robert Brainard

- P17 Molecular Self-assembly of Unnatural Amino Acids**
Rabi Musah Chemistry UAlbany
- P18 Nanotechnology Enabled Biosensors**
Nathan Cady Biology CNSE
- P19 A Multi-Disciplinary Toolbox to Study Brain Structure and Function**
Annalisa Scimemi Biology UAlbany
- P20 Optical Antennas from Engineered Peptides**
John Welch Chemistry UAlbany

10:40 Break (30 min)

11:10 **Session 6. Chair: Michael Carpenter**

P21 Discovery of Unusual Enone Dimer via Oxidative Phenol Couplings

Qiang Zhang Chemistry UAlbany

P22 Raman Spectroscopic Analysis of Iron Transport across Membranes in Cells

Anna Sharikova Physics UAlbany

P23 Monitoring of Live Cell Cultures during Apoptosis by Phase Imaging and Raman Spectroscopy

Alexander Khmaladze Physics UAlbany

P24 Plasmonics-Based Sensors

Michael Carpenter Chemistry CNSE

12:30 **No-Host Lunch: UAlbany Student Center**

1:30 **Session 7. Chair: Marlene Belfort**

P25 Modulation of RNA Modifications during Viral Infection

Cara Pager Biology UAlbany

P26 Development of the sxRNA Technology

Scott Tenenbaum Biology CNSE

P27 Inteins as Biosensors

Christopher Lennon Biology UAlbany

P28 The Mysterious Vacuoles in the Kidney of a Transgenic Mouse

Xinxin Ding Biology CNSE

2:50 **Break (30 min)**

3:20 **Session 8. Chair: Andre Melendez**

P29 Electron-Beam Induced Deposition at Cryogenic Temperatures for Additive Manufacturing

Kathleen Dunn Physics CNSE

P30 Real Time In-Cell NMR to Study Protein Interactions in Live Cells at Atomic Resolution

Alexander Shekhtman Chemistry UAlbany

P31 Bio Roll-Up: Using Self-Assembly of Hydrogels to Convert Planar Cells to 3D Structures

Robert Brainard Chemistry CNSE

4:20 Concluding Remarks

Program Committee:

- Robert Brainard (Program Chair)
- John Welch (UAlbany Site Organizer)
- Carolyn MacDonald (UA Physics)
- Annalisa Scimemi (UA Biology)
- Andre Melendez (CNSE NanoBio)
- Greg Denbeaux (CNSE NanoEngineering)

