

Biophysical Society 69th Annual Meeting

Bioengineering Subgroup Symposium

Saturday February 15, 2025

Los Angeles, California

Subgroup Chair: Seth Weinberg, Ohio State University, USA

Symposium Time: 1:30 - 5:30 PM PST

Subgroup Business Meeting: 3:20 PM PST

Symposium Room: 502B

1:30 PM Opening Remarks

1:35 PM Manu Ben Johny, Columbia University, USA

De novo Design of Precision Actuators for Voltage-Gated Calcium and Sodium Ion Channels

2:00 PM Dawen Cai, University of Michigan, USA

Super-Resolution Profiling of Neuron Morphology, Synapse Connectivity, and Molecular Identity

2:25 PM Gil Bub, McGill University, Canada

Multiplexed High-Throughput Imaging for the Life-Sciences

2:50 PM Roshni Shetty, UC Davis, USA

Multiscale Modeling of Sex Differences in Beta-Adrenergic Responses of the Heart

3:00 PM Peipei Wang, Ohio State University, USA

Mechanotransduction at the Nuclear Pore Complex: Insights from a Novel GP210 Force Sensor

3:10 PM Break

3:20 PM Business Meeting

3:30 PM Amelia McCue, Johns Hopkins University, USA

Engineering a Tumor-Sensitive Prodrug T Cell Engager Bispecific Antibody for Safer Immunotherapy

3:40 PM Keita Uchida, University of Pennsylvania, USA

Single Cardiomyocyte Protein Synthesis is Driven by Heterogeneous mTORC1 Activity

3:50 PM David Odde, University of Minnesota, USA

Biophysics of Cancer and Immune Cell Migration in Brain Tissue

4:15 PM Rebecca Vanderpool, Ohio State University, USA

Phenotypic Insights into Right Ventricular Biomechanics in Patients with Pulmonary Hypertension

4:40 PM Priscilla Hwang, Virginia Commonwealth University, USA

Mechanical Cues Mediate P-Cadherin Dependent Adhesions Required for Epithelial Morphogenesis

5:05 PM Elizabeth Wayne, University of Washington, USA

The Impact of Rigidity at the Nanoparticle: Immune Cell Interface

5:29 PM Closing Remarks