Mechanobiology Subgroup 2017 Symposium
Saturday, February 17, 2018
San Francisco, California
9:30 AM- 5:00 PM
Esplanade Room 157
Subgroup Chair: Alex Dunn, Stanford University

9:30 AM Opening Remarks

9:35 AM
Xavier Trepat, Institute for Bioengineering of Catalonia, Spain
Physical Forces Driving Migration, Division, and Folding in Epithelial Sheets

10:00 AM Student Talk
Priyanka Kothari, Johns Hopkins School of Medicine
Elucidating the biochemical interactions that drive the mechanosensitive contractile network

10:15 AM Late Breaking Addition
Ayelet Lesman, Tel-Aviv University, Israel
Nonlinear elasticity of biological fibrous networks facilitates efficient intercellular mechanical signaling

10:30 AM
Andrés García, Georgia Institute of Technology
Synthetic Hydrogels for Mechanotransduction

10:55 AM Break

11:10 AM
Vernita Gordon, University of Texas, Austin
Bacteria Sense Mechanical Force as a Cue to Form a Pathogenic Biofilm

11:35 AM Student Talk
Christopher Edelmaier, University of Colorado, Boulder
Minimal ingredients for coupled spindle assembly and chromosome biorientation in a computational model of fission yeast mitosis

11:50 AM Student Talk
Sarah Shelby, University of Michigan Ann Arbor
Functional organization of plasma membrane adaptor proteins in B cell receptor signaling

12:05 PM Lunch Break

1:30 PM
Kristy Red-Horse, Stanford University
Blood Flow Stimulated Behaviors that Regulate Artery Size and Shape

1:55 PM Student Talk
Saswata S. Sarkar, Stanford University School of Medicine
Mavacamten stabilizes a folded-back sequestered super-relaxed state of beta-cardiac myosin

2:10 PM Student Talk
Sangkyun Cho, University of Pennsylvania
Mechanosensing to protect the genome from DNA damage during development

2:25 PM
Sevan Hoyan, University of Toronto, Canada
Volumetric Morphogenesis in the Mouse Embryo

2:50 PM Break

3:05 PM
Shelly Tzlil, Technion-Israel Institute of Technology, Israel
Elastic-mediated Interactions between Cells: Mechanical Communication in Cardiac Cell Beating

3:30 PM Student Talk
Miao Yu, National University of Singapore, Singapore
MDia1 senses both force and torque during F-actin filament polymerisation

3:45 PM Break

4:00 PM
Daniel Fletcher, University of California, Berkeley
Shaping Actin Network Organization and Composition with Force

4:25 PM Closing Remarks

4:30 PM Break

4:45 PM Business Meeting

5:00 PM Adjournment

The Mechanobiology Subgroup is grateful for support from the following companies:

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