

Biophysical Society 69th Annual Meeting
Mechanobiology Subgroup Symposium
Saturday February 15, 2025
Los Angeles, California

Subgroup Chair: Amit Pathak, Washington University, USA

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

Subgroup Business Meeting: 3:25 PM PST

Symposium Room: 501ABC

1:30 PM Opening Remarks

1:35 PM Johanna Ivaska, University of Turku, Finland
Integrin Modulation of Cellular Mechanoresponses

2:00 PM Daniel Cohen, Princeton University, USA
Adventures in Cellular Herding: Controlling Collective Cell Biophysics

2:25 PM Stephanie Fraley, University of California, San Diego, USA
How Cells Sense Degradability

2:50 PM Pilnam Kim, Korea Advanced Institute of Science & Technology, South Korea
Rewiring Mechanocoupling of the ECM-Cytoskeleton-Nucleus Axis in a 3D Tissue-Equivalent ECM Model

3:15 PM Break

3:25 PM Business Meeting

4:00 PM Student/Postdoc Talk: Emmet Francis, *Simulations of Deformation-Dependent Signaling at the Plasma Membrane and the Nuclear Envelope*

4:10 PM Dennis Discher, University of Pennsylvania, USA
Foundation model for mechanobiology of real tissues with explainability

4:35 PM Kara Garcia, Indiana University, USA
Mechanobiology in the Developing Brain: The Lasting Impact of Developmental Stress Fields on Neuronal Morphology and Tissue Organization

5:00 PM Zev Gartner, University of California, San Francisco, USA
Building Tissues to Understand How Tissues Build Themselves

5:25 PM Closing Remarks

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