

Mechanobiology Subgroup 2017 Symposium
Saturday, February 11, 2017
New Orleans, Louisiana
9:00 AM- 6:30 PM
Room R08/09

Ewa Paluch, University College London, UK, Subgroup Chair

9:10 AM **Introduction**

9:15 AM

Mechanical aspects of mitochondrial alterations in apoptosis

Ana Garcia-Saez, University of Tuebingen

9:45 AM **Short Talk**

Disassembling the Cytoskeleton: Effects of Adf/Cofilin on Actin Dynamics

Hugo Wioland

10:00 AM **Short Talk**

Vinculin Forms A Catch Bond With F-Actin That Depends on Actin Filament Orientation

Derek Huang

10:15 AM

Non-Equilibrium Phase Transitions in Actomyosin Cortices

Nikta Fakhri, Massachusetts Institute of Technology

10:45 AM **Coffee Break**

11:15 AM Short Talk

Genomic Variation in an Osteosarcoma Cell Line Caused by Pore Migration

Jerome Irianto

11:30 AM

Mechanical signalling in stem cells: self-renewal and ageing

Kevin Chalut, University of Cambridge

12:00 PM

The Mechanical Control of Nervous System Development

Kristian Franze, University of Cambridge

12:30 PM Lunch Break

2:00 PM **Short Talk**

Local Load-Bearing by Kinetochore-Fibers in The Mammalian Spindle Provides Mechanical Isolation and Redundancy

Mary Elting

2:15 PM **Short Talk**

Direct Observation of Strain Transmission through the Microtubule Network of Cardiomyocytes

Matthew Caporizzo

2:30 PM **Short Talk**

Nanoscale Architecture of the Actomyosin Cortex During Cell Division

Binh An Truong Quang

2:45 PM

How do single-cell properties influence the collective mechanical behavior of confluent tissues?

Lisa Manning, Syracuse University

3:15 PM Coffee Break

3:45 PM

Mechanical control of tissue morphogenesis

Otger Campas, University of California, Santa Barbara

4:15 PM

Mechanical stretch triggers rapid epithelial cell division through the stretch-activated channel Piezo1

Jody Rosenblatt, University of Utah

4:45 PM Short Talk

Mechanoaccumulative Elements of the Mammalian Actin Cytoskeleton

Eric Schifffhauer

5:00 PM Short Talk

Physical Determinants of Bipolar Mitotic Spindle Assembly and Stability in Fission Yeast

Meredith Batterton

5:15 PM Business Meeting

6:30 PM Speakers Dinner

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

