

2nd meeting of France-BioImaging Mechanobiology Working Group

Program

Day 1 – 26/03

Sorbonne Université, Jussieu campus, Cassan C building room C404 (Paris 5^e)

8:30 – 9:00: welcome, registration, coffee

9:00 – 10:15: Presentations, first session

9:00 – 9:15: introduction

9:15 – 9:30: [Stiffness fluctuations in T cells](#). *Finn Bastian Molzahn*

9:30 – 9:45: [Mechanical and molecular regulation of secretion hotspots in 2D and 3D](#). *Louise Nassor*

9:45–10:00: [CDC42 Regulates Golgi Mechanics, Organelle Stiffness, and Cargo Transport](#). *Kelly Molnar*

10:00 – 10:15: [A second-order regularized optical flow for improving the quantification of cellular deformation](#). *Joséphine Lahmani*

10:15 – 11:15: coffee break & poster session room C404

11:15 – 12:05: Presentations, second session

11:15–11:30: [Elastocapillarity of hydrogels: from mechanical characterization with optical tweezers, to the impact on cell directional migration](#). *Rodolphe Jaffiol*

11:30 – 11:45: [Correlative Atomic Force Microscopy and multimodal imaging](#). *Luca Costa*

11:45 – 12:05: sponsor presentation: Rapp Opto

11:55 – 12:05: sponsor presentation: Telight

12:30 – 14:00: lunch & posters room C404.

13:45 – 17:30: Experimental workshops

Departures for experimental workshops in Curie Institute, Institut Pierre-Gilles de Gennes, Jussieu labs (up to 15-minute walk)

14:00 – 15:30: experimental workshop, session 1

16:00 – 17:30: experimental workshop, session 2

18:00 – 21:00: cocktail. Tour Zamansky 24th floor (Jussieu campus)

Day 2 – 27/03

Université Paris Cité, Grands-Moulins campus, amphithéâtre Buffon (Paris 13^e)

9:00 – 10:00: Presentations, third session

9:00 – 9:15: [Nanosensor for Membrane Tension in Autophagy](#). *Rena Royce Bieda Nanda*

9:15 – 9:30: [Spatiotemporal imaging of tissue mechanics and metabolic states:](#)

[link actomyosin-cadherin mechanotransduction to cell metabolism](#). *Mariia Balatskaia*

9:30 – [The mechanosensitive channel Piezo1 is a mediator of mechanical forces in bone marrow endothelial cells](#). *Marine Devaux*

9:45 – 10:00: [Regulation of neuroepithelium mechanics by PAX3 transcription factor in spinal organoids](#). *Camil Mirdass*

10:00 – 10:30: coffee break, Buffon Hall

10:30 – 12:00: Presentations, fourth session

10:30 – 11:15: keynote talk. [Nuclear mechanotransduction in genome integrity & cell state regulation](#). *Kate Miroshnikova*

11:15 – 11:30: [Unraveling Morphological and Biomechanical Responses to Stressors in Coccidian Oocysts](#). *Jana El Hussein*

11:30 – 11:45: [Mechanical interactions between bacteria and grains in a model soil](#). *Willy V. Bonneuil*

11:45 – 12:00: conclusions

12:00 – 14:00: lunch in Buffon Hall.

13:45 – 17:30: Experimental workshops

Departures for experimental workshops in Buffon, Condorcet and Lamarck buildings (5-minute walk)

14:00 – 15:30: experimental workshop, session 3

16:00 – 17:30: experimental workshop, session 4