

Virtual Symposium on Quantitative Cell Biology, Biophysics and Bioengineering

October 14 -15, 2021

INVITED SPEAKERS

Manu Prakash

Celeste Nelson

Ewa Paluch

Donald Ingber

Lisa Manning

Jochen Guck

A. James Hudspeth

Jennifer Lippincott-Schwartz

Prisca Liberali

Erwin Frey

Karen Alim

Julien Vermot

Nicoletta Petridou

Stephan Grill

Michel Milinkovitch

Mustafa Khammash

Natalie Dye

PROGRAMME

https://www.portal.graduatecenter.uni-muenchen.de/ocgc/sites/default/files/112884_1787077173.pdf

REGISTRATION PORTAL

<https://www.portal.graduatecenter.uni-muenchen.de/ocgc/qbm-symposium>

Attendance to the Symposium is free of charge, but pre-registration is necessary.

Registration deadline October 8th, 2021

REGISTRATION PORTAL

<https://www.portal.graduatecenter.uni-muenchen.de/ocgc/qbm-symposium>

October 14, Thursday

Opening remarks

Hernán López-Schier 13:00

Session 1

Protein pattern formation: mechanisms and applications

Erwin Frey 13:10

Symmetry breaking in multicellular systems

Prisca Liberali 13:50

Break 14:30 - 14:40

Session 2

Network morphology to store memories

Karen Alim 14:40

Mechanical Control of Tissue and Organ Development

Donald Ingber 15:20 (9:20 AM)

TBA

Lisa Manning 16:00 (10:00 AM)

Biophysics of branching

Celeste Nelson 16:40 (10:40 AM)

Break 17:20 - 17:30

Mechanosensitive bioelectric signalling in the developing heart
Julien Vermot 17:30

Multi-scale “perceptive machines” encode behavior in headless animals
Manu Prakash 18:10 (9:10 AM)

October 15, Friday

Session 3

TBA

Natalie Dye 12:20

Tissue-scale material phase transitions in embryo morphogenesis and patterning
Nicoletta Petridou 13:00

Cell morphogenesis across scales: from molecules to forces
Ewa Paluch 13:40

The ocellated lizard and the Ising model: a statistical-mechanics view of skin colour patterning
Michel Milinkovitch 14:20

Inspecting the secretory pathway with whole-cell, volumetric FIB-SEM
Jennifer Lippincott-Schwartz 15:00 (9 AM)

Break 15:40 - 15:50

Session 4

A condensate dynamic instability orchestrates oocyte actomyosin cortex activation
Stephan Grill 15:50

Making an effort to hear: mechanical amplification by hair cells of the inner ear
James Hudspeth 16:30 (10:30 AM)

Engineering Adaptation in Living Cells
Mustafa Khammash 17:10

Feeling for cell function
Jochen Guck 17:50

Closing remarks
Erwin Frey 18:30