
UCL INSTITUTE FOR THE PHYSICS OF LIVING SYSTEMS ANNUAL SYMPOSIUM 2021

TUESDAY 25 MAY 2021

ONLINE ON ZOOM



PROGRAMME

08.50-09.00 **Welcome and Introduction**

Ivan Parkin

SESSION I: IMAGING AND AI

Chair: Maxim Molodtsov (Francis Crick Institute)

09.00-09.30 **Learning the rules of a cellular game**

Alan Lowe (UCL)

09.30-10.00 **Towards quantitative, ultra-resolved, 3D super-resolution fluorescence imaging**

Sabrina Simoncelli (UCL)

10.00-10.30 **Break and Discussion**

SESSION II - MODELLING, MOTILITY AND CANCER

Chair: Karen Page (UCL)

10.30-11.00 **Aggregation without attraction: Modelling how an elastic environment influences collective cell dynamics**

Angelika Manhart (UCL)

11.00-11.30 **Modelling and quantification of tumour evolution**

Chris Barnes (UCL)

11.30-12.00 **Break and Discussion**

SESSION III - MECHANICS AND DEVELOPMENT

Chair: Emad Moeendarbary (UCL)

12.00-12.30 **Coping with mechanical stress - Tissue dynamics during development and repair**

Yanlan Mao (UCL)

12.30-13.00 **Mechanotransduction and morphogenetic processes in the cardiovascular system**
Julien Vermot (Imperial College London)

13.00-14.00 [Lunch and Discussion](#)

SESSION IV - KEYNOTE SPEAKERS

Chair: Guillaume Charras (UCL)

14.00-15.00 **Xenobots: computer-designed synthetic organisms reveal the plasticity of morphogenesis**
Michael Levin (Tufts University) and Josh Bongard (University of Vermont)

15.00-15.30 [Break and Discussion](#)

SESSION V - COMPARTMENTS AND BOUNDARIES

Chair: Nate Goehring (Francis Crick Institute)

15.30-16.00 **Cell reshaping, cutting, and splitting**
Andela Saric (UCL)

16.00-16.30 **Asthma: putting the squeeze on airway epithelia**
Jody Rosenblatt (King's College London)

16.30-17.00 Closing and Discussion

17.00 Drinks Reception in Gordon Square Gardens
(<https://goo.gl/maps/QrPWnih6mPSPNBDu5>)