

# Event Schedule

## Tuesday, September 11

8h00 - 9h00 Registration

9h10 - 9h15 Introduction

9h15 - 11h00 **Session 1**

*Invited speaker:* **Daniel St Johnston** (University of Cambridge - UK)  
*Alternative modes of epithelial polarity*

**Jonathan Fouchard** (University College London - UK)  
*Basal constriction generates spontaneous curvature governing 3D substrate-free epithelial monolayer shape*

*Invited speaker:* **Aryeh Warmflash** (Rice University - Houston, USA)  
*Self-organizing stem cell systems to study early human development*

**Steffen Rulands** (Max Planck Institute - Dresden, Germany)  
*Collective oscillations in DNA methylation during exit from pluripotency*

**Timothy Rudge** (Universidad Catolica de Chile - Santiago, Chile)  
*Non-equilibrium analysis of cell populations using information theory*

11h00 - 11h40 **Coffee Break**

11h40 - 12h40 **Session 2**

*Turing Lecture:* **Ben Simons** (University of Cambridge - UK)  
*Emergent phenomena in tissue stem cell biology*

12h40 - 14h10 **Lunch and Poster set-up**

14h10 - 15h40 **Session 3**

*Invited speaker:* **Aleksandra Walczak** (ENS - Paris, France)  
*Prediction in immune repertoires*

**Etienne Loiseau** (Aix-Marseille Univ. - France)  
*The spatiotemporal organization of cilia activity drives multiscale circular flows of mucus in reconstituted human bronchial epithelium*

**Jean-Daniel Julien** (Max Planck Institute - Göttingen, Germany)  
*A model for the organisation of contractions and fluid flows in the slime mould Physarum polycephalum*

*Invited speaker:* **Yoël Forterre** (Aix-Marseille Univ. - France)  
*Gravisensing in plants relies on an active granular medium*

15h40 - 17h10 **Coffee break and Poster session - EVEN NUMBERS**

17h10 - 18h25 **Session 4**

*Invited speaker:* **Andreas Herz** (Ludwig-Maximilians-Universität - Munich, Germany)  
*Decoding the population activity of grid cells for spatial localization and goal-directed navigation*

**David Brücker** (Ludwig-Maximilians-Universität - Munich, Germany)  
*Stochastic Nonlinear Dynamics of Confined Cell Migration*

*Invited speaker:* **Rosa Cossart** (Aix-Marseille Univ., INSERM - France)  
*Cortical hub neurons: when theoretical predictions feed experiments*

18h30 **Aperitif & Dinner**



# Event Schedule

## Wednesday, September 12

8h30 - 9h00 Welcoming coffee

9h15 - 10h45 Session 5

*Invited speaker:* **Pavel Tomančák** (Max Planck Institute - Dresden, Germany)  
*A new force awakens: comparative approach to tissue morphogenesis in insects*

**Guy Blanchard** (University of Cambridge - UK)  
*Radially patterned cell behaviours drive tube budding from an epithelium*

**Marija Matejčić** (Max Planck Institute - Dresden, Germany)  
*A non-cell autonomous actin redistribution enables isotropic retinal growth*

*Invited speaker:* **Marie-Hélène Verlhac** (Collège de France - Paris, France)  
*Aberrant cortical tension generates aneuploidy in oocytes*

10h45 - 11h20 **Coffee Break**

11h20 - 12h35 Session 6

**Sandra Lemke** (Max Planck Institute - Martinsried, Germany)  
*A small proportion of Talin molecules transmit forces to achieve muscle attachment in vivo*

*Invited speaker:* **Pere Roca-Cusachs** (IBEC- Barcelona, Spain)  
*The molecular clutch model as a framework to understand integrin-mediated mechanotransduction*

**Sham Tlili** (Mechanobiology Institute, National University of Singapore - Singapore)  
*The interplay between mechanical forces and cell differentiation drives shape formation in the developing zebrafish myotome*

**Anaïs Bailles** (Aix-Marseille Univ., CNRS - France)  
*A self-organized mechanical cycle underlies a tissue contractile wave and polarizes morphogenesis of the Drosophila endoderm*

12h35 - 14h20 **Lunch and Poster session - ODD NUMBERS**

14h20 - 15h20 Session 7

*Bragg Lecture:* **Terence Hwa** (University of California - San Diego, USA)  
*Dimension Reduction by Cells*

15h20 - 16h00 **Coffee Break**

16h00 - 17h15 Session 8

*Invited speaker:* **Tâm Mignot** (Aix-Marseille Univ., CNRS - France)  
*Linking single cell behaviors to the formation of multicellular patterns in a social bacterium*

**Clara Essmann** (University College London - UK)  
*Mechanical sensing of damage?*

*Invited speaker:* **Kristian Franze** (University of Cambridge - UK)  
*The molecular control of microtubule orientation in neurons*

17h15 - 17h30 **Prizes & closing remarks**

