Sunday 11 March 2018

12:45 - 14:30	**Arrival / Registration with light refreshments** ATC Reception and Foyer	
13:30 - 14:15	**Industry workshop hosted by Fluidigm** Courtyard Seminar Room	
14:30 - 14:45	**Opening remarks** ATC Auditorium	
14:45 - 18:30	**Session 1: Cellular Organisation** **Chair: Orion Weiner, University of California, San Francisco** ATC Auditorium	
14:45 - 15:15	**A template for actin organisation at the leading edge** Orion Weiner *University of California, San Francisco, United States of America*	1
15:15 - 15:30	**Self-organisation of the actin cytoskeleton drives secretion in Drosophila salivary glands** Benny Shilo *Weizmann Institute of Science, Israel*	2
15:30 - 15:45	**Temporal dynamics of morphogen shuttling in the early Drosophila embryo** Inna Averbukh *Weizmann Institute of Science, Israel*	3
15:45 - 16:15	**Dynamics and instabilities of contractile actin networks in artificial cells** Kinneret Keren *Technion- Israel Institute of Technology, Israel*	4
16:15 - 17:00	**Coffee Break & Meet the Speakers** ATC Foyer	

17:00 - 17:30 **EMBO Young Investigator Lecture: Contribution of polarity reversal to the formation of metastases** 5

Manuel Théry

Hopital Saint Louis, France

17:30 - 17:45 **Investigating mitotic nuclear dynamics of pseudo-stratified epithelia in *Drosophila melanogaster*** 6

Natalie Kirkland

University College London, United Kingdom

17:45 - 18:00 **Local arrangement of fibronectin by myofibroblasts governs peripheral nuclear positioning in muscle cells** 7

William Roman

Instituto de Medicina Molecular, Portugal

18:00 - 18:30 **Cellular proteostasis during aging through asymmetric cell division and organelle-based clearance** 8

Rong Li

Johns Hopkins University, United States of America

18:30 - 20:00 **Welcome Dinner**

EMBL Canteen

Monday 12 March 2018

09:00 - 12:15 **Session 1 (continued): Cellular Organisation**
Chair: Orion Weiner, University of California, San Francisco

ATC Auditorium

09:00 - 09:30 **Bring the pain: Response of an excitable embryo to cell damage** 9

Bill Bement
University of Wisconsin-Madison, United States of America

09:30 - 09:45 **Spatiotemporally controlled Myosin relocalization and internal pressure causes biased cortical extension to generate sibling cell size asymmetry** 10

Clemens Cabernard
University of Washington, United States of America

09:45 - 10:00 **Competition between Cortical and Cytoplasmic dynein pulling forces for division positioning during embryonic cleavages** 11

Jérémy Sallé
Jacques Monod Institute (CNRS), France

10:00 - 10:30 **Dendritic Cell Migration: from microfluidics to in vivo imaging** 12

Ana-Maria Lennon-Duménil
Institut Curie, France

10:30 - 11:15 **Coffee Break**
ATC Foyer

11:15 - 11:45 **Probing the feedback interactions between cell morphogenesis and signaling** 13

Gaudenz Danuser
The University of Texas Southwestern Medical Center, United States of America

11:45 - 12:00	**Junctional forces and wall shear stress compete to coordinate collective cell polarity** Claudio Franco *Instituto de Medicina Molecular, Portugal*	14
12:00 - 12:15	**Self-organising properties of post-embryonic plant organ cell division patterns** Alexis Maizel *Heidelberg University, Germany*	15
12:15 - 14:00	**Lunch** ATC Foyer	
14:00 - 17:45	**Session 2: Mechanics** **Chair: Celeste M. Nelson, Princeton University** ATC Auditorium	
14:00 - 14:30	**Control and self-organization of cell mechanics during tissue morphogenesis** Thomas Lecuit *IBDM, France*	16
14:30 - 14:45	**Mechanical forces promote planar polarized junction lengthening** Xinyi Yang *Institut Biologie Paris Seine, France*	17
14:45 - 15:00	**Building a barrier: Survival of the fittest in the developing skin** Stephanie Ellis *The Rockefeller University, United States of America*	18
15:00 - 15:30	**To be presented onsite** Suzanne Eaton *Max Planck Institute of Molecular Cell Biology and Genetics, Germany*	20
15:30 - 16:15	**Coffee Break & Meet the Speakers** ATC Foyer	

16:15 - 16:45	**Motifs in morphogenesis** L. Mahadevan *Harvard University, United States of America*	19
16:45 - 17:00	**Cerebellar folding through differential expansion** Andrew Lawton *Sloan Kettering Institute, United States of America*	21
17:00 - 17:15	**Tissue fluidity promotes epithelial wound healing** Rob Tetley *University College London, United Kingdom*	22
17:15 - 17:45	**Tissue genetics: clonality, heterogeneity, and growth in Drosophila imaginal epithelia** Matthew C. Gibson *Stowers Institute for Medical Research, United States of America*	23
17:45 - 18:00	**Selected Flash Talks (1 slide / 2 min each)** Barriga #55 / DasGupta #63 / He #75 / Imran Alsou #77 / Masselink #85 / Petridou #93	
18:00 - 19:30	**Poster Session I (odd numbers)** ATC Helix A	
19:30 - 21:00	**Dinner** EMBL Canteen	
21:00 - 22:30	**After-dinner drinks** ATC Rooftop Lounge	

Tuesday 13 March 2018

09:00 - 11:45 **Session 3: Synthetic Biology**
Chair: Stefano De Renzis, EMBL Heidelberg
ATC Auditorium

09:00 - 09:30 **Synthetic morphogenesis in naïve embryonic tissues** 24
Stefano De Renzis
EMBL Heidelberg, Germany

09:30 - 09:45 **Mechanisms regulating the emergence of tissue-wide synchrony in Drosophila early embryos** 25
Victoria Deneke
Duke University, United States of America

09:45 - 10:00 **Molecular mechanism of symmetry breaking in a 3D model of a human epiblast** 26
Mijo Simunovic
The Rockefeller University, United States of America

10:00 - 10:45 **Coffee Break**
ATC Foyer

10:45 - 11:15 **Tissue Origami: engineering tissue folding by mechanical compaction of the mesenchyme** 27
Zev Gartner
University of California, San Francisco, United States of America

11:15 - 11:30 **Cracking the adhesion code underlying robust pattern formation in zebrafish spinal cord** 28
Tony Tsai
Harvard Medical School, United States of America

11:30 - 11:45 **Delineating the cytomechanics of cardiac trabeculation** 29
Rashmi Priya
Max Planck Institute for Heart and Lung Research, Germany

11:45 - 13:30 **Lunch**
ATC Foyer

13:30 - 14:00	**To be presented onsite** Petra Schwille *Max Planck Institute of Biochemistry, Germany*	30
14:00 - 17:45	**Session 4: Self-organisation** **Chair: Takashi Hiiragi, EMBL Heidelberg** ATC Auditorium	
14:00 - 14:30	**From Single Cell To Cell Collective And Back** Darren Gilmour *University of Zurich, Switzerland*	31
14:30 - 14:45	**How do the semicircular canals of the inner ear form?** Akankshi Munjal *Harvard Medical School, United States of America*	32
14:45 - 15:00	**Tissue self-organisation underlies morphogenesis of the notochord** Michel Bagnat *Duke University, United States of America*	33
15:00 - 15:30	**Organ size control via the interplay between luminal pressure and cell mechanics** Chii Jou Chan *EMBL Heidelberg, Germany*	34
15:30 - 16:15	**Coffee Break & Meet the Speakers** ATC Foyer	
16:15 - 16:45	**Human pluripotent stem cell-derived gastrointestinal organoids as new models to study developmental processes in humans** James Wells *Cincinnati Children's Hospital Research Foundation, United States of America*	35

16:45 - 17:00	**Mechanics of cell sheet folding – Embryonic inversion in the green alga Volvox** Stephanie Höhn *University of Cambridge, United Kingdom*	36
17:00 - 17:15	**The integration of traction and adhesion forces links cell fate specification and morphogenesis of organ progenitors in the zebrafish embryo** Miguel Concha *University of Chile, Chile*	37
17:15 - 17:45	**Self-organisation and symmetry breaking of intestinal organoids** Prisca Liberali *Friedrich Miescher Institute, Switzerland*	38
17:45 - 18:00	**Selected Flash Talks (1 slide / 2 min each)** Bailles #52 / Baumgärtner #56 / Libby #83 / Pour #95 / Schauer #102 / Zinner #121	
18:00 - 19:30	**Poster Session II (even numbers plus #83 / #95 / #121)** ATC Helix A	
19:30 - 21:30	**Conference Dinner** EMBL Canteen	
21:30 - 00:00	**Conference Party with DJ**	

Wednesday 14 March 2018

09:00 - 12:45 **Session 5: Modeling Organogenesis and disease**
Chair: Darren Gilmour, University of Zurich

ATC Auditorium

09:00 - 09:30 **YAP/TAZ in stem cells and tissue regeneration** 39
Stefano Piccolo
University of Padova, Italy

09:30 - 09:45 **Explorative mechanochemical modelling of dorsal closure reveals emergent cell patterning and tissue shaping** 40
Francesco Atzeni
University of Zurich, Switzerland

09:45 - 10:00 **Tissue-level phase transitions direct self-organisation of skin progenitor cells: A platform for analyzing interface between physical process and gene regulation** 41
Chengming Chuong
University of Southern California, United States of America

10:00 - 10:30 **Studying human brain development and evolution in cerebral organoids** 42
Madeline Lancaster
MRC Laboratory of Molecular Biology, United Kingdom

10:30 - 11:15 **Coffee Break & Meet the Speakers**
ATC Foyer

11:15 - 11:45 **Developing under pressure: physical force as a pacer of morphogenesis** 43
Celeste M. Nelson
Princeton University, United States of America

11:45 - 12:00 **Fluid mechanics of avian gastrulation** 44
Francis Corson
CNRS / Ecole Normale Supérieure, France

12:00 - 12:15	**The spatiotemporal organisation of cilia activity drives multiscale circular flows of mucus in reconstituted human bronchial epithelium** Etienne Loiseau *CNRS, France*	45
12:15 - 12:45	**Ooplasmic segregation in zebrafish** Carl-Philipp Heisenberg *Institute of Science and Technology, Austria*	46
12:45 - 13:00	**Closing remarks** ATC Auditorium	
13:00 - 13:35	**Packed lunch** ATC Foyer	
13:35	**Bus departure** ATC Bus stop	

Please remember to collect your poster. Posters that have not been collected will be disposed of after the meeting.

Check your inbox when the meeting ends. You will find an email with the link to the online feedback questionnaire. Please take time to complete it!