

# MPI-CBG 15<sup>th</sup> Anniversary Symposium

## Programme



### Thursday, 27 October 2016

14:00 – 15:30	Registration, Welcome and Posters	Atrium
15:30 – 16:00	Coffee Break	Atrium
	<b>Session 1</b> Chair: Elisabeth Knust (MPI-CBG)	Auditorium
16:00 – 16:05	Introduction to Today's Opening Program Elisabeth Knust (Director, MPI-CBG)	Auditorium
16:05 – 16:35	<b>MPI-CBG 2001 – 2016: Past, Present and Future</b> Wieland Huttner (Managing Director, MPI-CBG)	Auditorium
16:35 – 16:40	An Introduction to Elisabeth Knust and Frank Jülicher Kai Simons (Director Emeritus, MPI-CBG)	Auditorium
16:40 – 17:10	<b>MPI-CBG 2001 – 2016: Two Views from the Outside</b> Elisabeth Knust (Director, MPI-CBG) & Frank Jülicher (Director, MPI-PKS)	Auditorium
17:15 – 17:20	An Introduction to Hans Clevers Anthony Hyman (Director, MPI-CBG)	Auditorium
17:20 – 18:20	<b>Keynote Lecture: Lgr5 Stem cell-grown organoids in human disease</b> Hans Clevers (Hubrecht Institute, Utrecht, Netherlands)	Auditorium
18:30 – 19:30	Welcome Reception	Atrium
19:30 – 22:00	Lab Reunions	MPI

### Friday, 28 October 2016

09:00 – 09:05	Introduction to Today's Scientific Program Marino Zerial (Director, MPI-CBG)	Auditorium
	<b>Session 2: CYTOPLASM &amp; CYTOSKELETON</b> Chair: Stephan Grill (BIOTEC, TU Dresden)	Auditorium
09:05 – 09:30	<b>Spindle Positioning in the Early C. elegans Embryo</b> Jonathon Howard (Yale University, New Haven, USA)	Auditorium
09:30 – 09:55	<b>The Curious Case of Cytoplasmic Dynein: Regulation of Localization and Activity by Myosin I</b> Vaishnavi Ananthanarayanan (Indian Institute of Science, Bangalore, India)	Auditorium
09:55 – 10:20	<b>Moving through intracellular phase space</b> Cliff Brangwynne (Princeton University, USA)	Auditorium
10:20 – 10:45	<b>Thoughts (and Experiments) on Microtubule Nucleation</b> Gary Brouhard (McGill University, Montréal, Canada)	Auditorium
10:45 – 11:00	Coffee Break	Atrium
	<b>Session 3: NUCLEUS</b> Chair: Frank Buchholz (University Clinics, TU Dresden)	Auditorium
11:00 – 11:25	<b>Co-transcriptional splicing: full speed ahead!</b> Karla Neugebauer (Yale University, New Haven, USA)	Auditorium
11:25 – 11:50	<b>That extra edge: cracking the CPB code of male gametogenesis</b> Christian Eckmann (Martin-Luther Universität, Halle (Saale), Germany)	Auditorium
11:50 – 12:15	<b>snRNP biogenesis and quality control</b> David Stanek (Institute of Molecular Genetics, Prague, Czech Republic)	Auditorium
12:15 – 12:40	<b>Dissecting alternative pathways and functions of the microRNA biogenesis machinery in mammalian neurogenesis</b> Davide De Pietri Tonelli (Istituto Italiano di Tecnologia, Genova, Italy)	Auditorium
12:40 – 13:40	Lunch	Canteen
	<b>Session 4: DEVELOPMENT 1</b> Chair: Elly Tanaka (Research Institute of Molecular Pathology, Vienna, Austria)	Auditorium
13:40 – 14:05	<b>The final cut: control of progression through meiosis II</b> Wolfgang Zachariae (MPI of Biochemistry, Martinsried, Germany)	Auditorium
14:05 – 14:30	<b>Controlling nucleases that determine our genetic make-up</b> Joao Matos (ETH Zurich, Switzerland)	Auditorium
14:30 – 14:55	<b>Period and pattern the embryo</b> Andrew Oates (Francis Crick Institute, London, UK)	Auditorium
14:55 – 15:20	<b>Methods and Tools to reconstruct the Drosophila connectome</b> Stephan Saalfeld (HHMI Janelia Farm, Ashburn, USA)	Auditorium
15:20 – 16:00	Coffee Break	Atrium
16:00 – 17:00	<b>FLASH TALKS I</b> Chair: Christian Dahmann (Department of Biology, TU Dresden)	Auditorium

Control and functions of sleep in *C. elegans* (BRINGMANN, Henrik) /// Organelle dynamics in mitosis (SCHLAITZ, Anne) /// Quantitative Proteomics Analysis of Cell Division in Mammalian Cells (OZLU, Nurhan) /// Kinetochore Microtubules indirectly link Chromosomes and Centrosomes in *C. elegans* Mitosis (REDEMANN, Stefanie) /// Somatic mosaicism mediated by LINE retrotransposons: the development of a zebrafish model (WIDMANN, Thomas) /// Symmetry breaking in the early mammalian embryo: the case for quantitative single-cell imaging analysis (PANTAZIS, Periklis) /// Molecular dynamics of cell fate decisions (SCHRÖTER, Christian) /// Cellular resolution view of the transcriptional landscape of a developing eye (EJSMONT, Radoslaw) /// Function of Non-Functional Cells?!? Tissue plasticity arising from cellular heterogeneity. (SINGH, Sumeet Pal) /// Uncovering the reciprocal regulation between endocytosis and metabolism (ZEIGERER, Anja)

/// The role of CENP-V in mammalian meiosis (CHACÓN, Mariola) /// Force Integration by Membrane-to-Cytoskeleton Crosstalk - Correlated Cryo FIB-SEM as a Structure-to-Function Approach (DRAB, Marek) /// Actin cortex architecture regulates cell surface tension (CHUGH, Priyamvada) /// Mechanisms promoting microtubule stabilization and chromosomal instability (BIRD, Alex) /// Membrane tension acts through PLD2 and mTORC2 to limit actin network assembly during neutrophil migration (DIZ-MUÑOZ, Alba)

17:00 – 17:05	An Introduction to Svante Pääbo Wieland Huttner (Managing Director, MPI-CBG)	Auditorium
17:05 – 18:05	<b>Keynote Lecture: A Neandertal Perspective on Human Origins</b> Svante Pääbo (MPI-EVA, Leipzig, Germany)	Auditorium
18:15	Transfer to the Hygiene Museum with shuttle busses	Main Entrance
19:00 – 21:30	Gala Dinner	Hygiene Museum
21:30 – 23:00	Strengthening our scientific network: from past to future collaborations	Hygiene Museum

### Saturday, 29 October 2016

09:00 – 09:05	Introduction to Today's Scientific Program Gene Myers (Director, MPI-CBG)	Auditorium
	<b>Session 5: MEMBRANES</b> Chair: Kai Simons (Director Emeritus, MPI-CBG)	Auditorium
09:05 – 09:30	<b>Cut-and-Paste of Single Integral Membrane Proteins</b> Daniel Müller (ETH Zurich, Switzerland)	Auditorium
09:30 – 09:55	<b>Kupffer cells as fatty acid sensors in hepatic fatty acid metabolism</b> Christoph Thiele (Universität Bonn, Germany)	Auditorium
09:55 – 10:20	<b>The Biophysics of Living Membranes</b> Ilya Levental (University of Texas, Houston, USA)	Auditorium
10:20 – 10:45	<b>Noise filtering by cellular compartmentalization</b> Lucas Pelkmans (University of Zurich, Switzerland)	Auditorium
10:45 – 11:00	Coffee Break	Atrium
	<b>Session 6: DEVELOPMENT 2</b> Chair: Federico Calegari (CRTD, TU Dresden)	Auditorium
11:00 – 11:25	<b>Asymmetric endosomes in asymmetric division</b> Marcos Gonzalez-Gaitan (University of Geneva, Switzerland)	Auditorium
11:25 – 11:50	<b>Cell and Tissue Mechanics in Development</b> Carl-Philipp Heisenberg (IST Austria, Klosterneuburg, Austria)	Auditorium
11:50 – 12:15	<b>Functional analysis of ESCRT-positive exovesicles in animal development</b> Maximilian Fürthauer (Institute of Biology Valrose, Nice, France)	Auditorium
12:15 – 12:40	<b>Developmental mechanisms coupling canalization and evolution of craniofacial morphology</b> Jennifer Fish (University of Massachusetts Lowell, USA)	Auditorium
12:40 – 13:40	Lunch	Canteen
	<b>Session 7: TOWARDS TRANSLATION &amp; APPLICATION</b> Chair: Michael Brand (CRTD, TU Dresden)	Auditorium
13:40 – 14:05	<b>Interactive Biotechnology and Synthetic Multicellularity</b> Ingmar Riedel-Kruse (Stanford University, USA)	Auditorium
14:05 – 14:30	<b>NMDA receptors in beta cells and human type 2 diabetes</b> Eckhard Lammert (Heinrich-Heine Universität Düsseldorf, Germany)	Auditorium
14:30 – 14:55	<b>Cellular Gatekeepers of Humoral Immunity</b> Daniel Lingwood (Harvard Medical School, Boston, USA)	Auditorium
14:55 – 15:20	<b>Drugging the undruggable: Targeting transcription factors in cancer</b> Ralf Kittler (University of Texas Southwestern, Dallas, USA)	Auditorium
15:20 – 16:00	Coffee Break	Atrium
16:00 – 17:00	<b>FLASH TALKS II</b> Chair: Stefan Diez (B CUBE, TU Dresden)	Auditorium

Understanding the assembly of the eukaryotic flagellum (VARGA, Vladimir) /// The flagella beat of Chlamydomonas has distinctly regulated static and dynamic components, which accord with curvature controlled dynein activity (GEYER, Veikko) /// Lipotype Shotgun Lipidomics (KLOSE, Christian) /// Sphingolipid Homeostasis in Anoxia Survival and Development (HANNICH, J. Thomas) /// Potential medical applications of lipophilic penetrating cations (SEVERIN, Fedor) /// Multisensory signal processing: From brain-wide neuronal circuits to behavior (BORMUTH, Volker) /// Membrane-targeted tripartite BACE1 inhibitor Tri-01 blocks retinal APP processing in an Alzheimer's disease mouse model (SCHRÖDER, Cornelia) /// Regulation of transendothelial nutrient transport by VEGF-B under physiological and diabetic conditions (MOESSINGER, Christine) /// Synaptic autophagy: a novel road towards the understanding of Parkinson's disease (SOUKUP, Sandra) /// Learning Data Analysis the easy way (BOWNE-ANDERSON, Hugo) /// Machine Learning based Diagnosis from Medical Images (KAMAL, Marzuk) /// Data Mining for Healthcare Data - is it really allowed to analyse? (KOZAK, Karol) /// VIB Discovery Sciences – From Target to Translation: Facilitating Early Drug & Agrochemical Discovery (KRAUSZ, Eberhard) /// Working in the Natural Sciences Sector at UNESCO Headquarters (LEBRETON-TRAORÉ, Magalie) /// Witness in a refugee camp (SAID, Amani)

17:30	Social Gathering with Refreshments	Atrium
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