

Insights into Molecular and Cellular Dynamics



Wednesday, 11.05.2016

09:00 Registration 10:45 Welcome Remarks

Session 1 Immunology

11:00 NETs: the second function of chromatin

Arturo Zychlinsky (Berlin, Germany)

11:30 Retroviruses, envelopes, receptors and metabolic markers

Marc Sitbon (Montpellier, France)

12:00 Mammalian sterile 20-like kinase 1a: an important player for neutrophil transmigration

Markus Sperandio (München, Germany)

12:30 Lunch Break

Session 2 Cell Biology

14:00 Establishing new tools for manipulating alternative model organisms in the study of the evolution of developmental processes

Cassandra Extavour (Boston, USA)

14:30 Extracellular matrix and its role in biomedical research Katja Schenke-Layland (Stuttgart, Germany)

15:00 Deconstructing cell migration Matthieu Piel (Paris, France)

15:30 Innate immune cell dynamics at sites of inflammation and infection

Tim Lämmermann (Freiburg, Germany)

16:00 Coffee Break

Session 3 Young Scientist Talks

16:30 Wound-induced signals and positional cues cooperate to initiate regeneration in the planarian *S. mediterranea*

Suthira Owlarn (Münster, Germany)

16:50 Regulation of bone vascularization and osteogenesis during mouse development

Urs H. Langen (Münster, Germany)

17:10 A nanotechnological approach reveals the role of alpha 2 beta 1 integrin in collagen-induced platelet aggregation

Augusto Martins Lima (Münster,

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7.30 Placma m

17:30 Plasma membrane organization in Zebrafish Primordial Germ Cells (PGCs) bleb Mohammad Goudarzi (Münster, Germany)

18:30 Guided City Tour and Dinner (for speakers only)

Thursday, 12.05.2016

Session 4 Developmental Biology

09:00 Regeneration of hematopoietic stem cells from endothelial cells

Dhvanit Shah (Boston, USA)

09:30 Notch regulates BMP responsiveness and lateral branching in vessel networks via SMAD6

Victoria L. Bautch (Chapel Hill, USA)

10:00 Molecular regulation of endothelial barrier properties in the central nervous system

Stefan Liebner (Frankfurt, Germany)

10:30 CNS neuronal progenitors regulate vascular patterning in adjacent mesodermal tissues

Didier Stainier (Bad Nauheim, Germany)

11:00 Coffee Break

Keynote lecture

11:30 The development of colour patterns in fishes: towards an understanding of the evolution of beauty

Christiane Nüsslein-Volhard

(Tübingen, Germany)

12:30 Lunch Break

Session 5 Applied Mathematics

14:00 Aspects of cell swimming motility Eamonn Gaffney (Oxford, UK)

14:30 Mathematical modeling of mechanochemical pattern formation

Anna Marciniak-Czochra

(Heidelberg, Germany)

15:00 Identification of mammary stem cells and their dynamics during branching morphogenesis

Edouard Hannezo (Cambridge, UK)

15:30 Coffee Break

16:00 Poster Session

18:30 Meeting Dinner

19:30 Party

Friday, 13.05.2016

Session 6 Genomics and Systems Biology

09:00 Towards a true isoform biology: deep long read sequencing reveals molecular co-association of distant splicing events in the human brain Hagen Tilgner (Stanford, USA)

09:30 Epigenomic establishment of macrophage tolerance and trained immunity

Henk Stunnenberg (Nijmegen, The Netherlands)

10:00 Establishment and maintenance of mammalian heterochromatin

Thomas Jenuwein (Freiburg, Germany)

10:30 Coffee Break

Session 7 Drug Design

11:00 Controlling biological activity with photopharmacology

Dirk Trauner (München, Germany)

11:30 Tools to probe the epigenetic code Manfred Jung (Freiburg, Germany)

12:00 Highly selective JAK3-inhibitors with a covalent-reversible binding mode targeting a nitrile induced arginine pocket

Stefan Laufer (Tübingen, Germany)

12:30 Lunch Break

Session 8 Neuroscience

14:00 Large protein and nanoparticle transport across the blood-brain barrier (BBB), with implications for drug delivery

N. Joan Abbott (London, UK) 14:30 Glial glycogen and brain energy

metabolism: new insights

Bruce R. Ransom (Washington, USA)

15:00 The interaction of genes and epigenes: a chromatin loop conferring an increased risk to develop Alzheimer's disease **Johannes Gräff** (Lausanne, Switzerland)

15:30 Closing remarks and Poster prize