

CEF-FIAS Symposium Programme 2019

Saturday 26 October 2019

Venue: FIAS, Routh-Moufang-Str. 1, Riedberg Campus, Frankfurt/Main



- 9:00 **Introduction and welcome**
Enrico Schleiff
BMLS and Institute of Molecular Biosciences, Goethe University
- 9:10 **Regulating nucleic acids in time and space**
Alexander Heckel
Institute of Organic Chemistry and Chemical Biology, Goethe University
- 9:30 **Molecular simulation of membrane sensing and remodeling**
Gerhard Hummer
Department of Theoretical Biophysics, Max-Planck-Institute of Biophysics
- 9:50 **Agent-based models for collective cell migration in development and disease**
Franziska Matthäus
FIAS and Faculty of Biological Sciences, Goethe University
- 10:10 **Quantitative description of the induction of apoptosis in oocytes following the treatment with irradiation and chemotherapeutics**
Marcel Tuppi, Volker Dötsch (BMLS and Institute of Biophysical Chemistry)
and Enrico Schleiff (BMLS and Institute of Molecular Biosciences)
Goethe University
- 10:30 **Membrane organization of the MHC-I peptide loading and quality control complexes**
Robert Tampé, Ralph Wieneke (Institute of Biochemistry)
and Mike Heilemann (Institute of Physical and Theoretical Chemistry)
Goethe University
- 10:50 Coffee break
- 11:20 **Quantitative analysis of phosphorylation and RNA binding state of SR proteins with native mass spectrometry**
Michaela Müller-McNicoll (Institute for Cell Biology and Neuroscience), Nina Morgner (Institute of Physical and Theoretical Chemistry) and Stefan Knapp (BMLS and Institute of Pharmaceutical Chemistry)
Goethe University
- 11:40 **Quantitative characterization of serosa window closure in *Tribolium castaneum***
Frederic Strobl and Ernst Stelzer
BMLS and Institute of Cell Biology and Neuroscience, Goethe University
- 12:00 **Studies of adhesion using cryo-electron tomography**
Achilleas Frangakis
BMLS and Institute for Biophysics, Goethe University
- 12:20 **Roles and regulation of cortical flow in cell division and patterning**
Christian Pohl
BMLS and Institute of Biochemistry II, Goethe University

- 12:40 Lunch break
- 14:00 **Potassium transporters and channels in bacterial survival**
Inga Hänel
Institute of Biochemistry, Goethe University
- 14:20 **Molecular insights into the sensing mechanism of the Stressosome complex**
Christine Ziegler
Institute of Biophysics and Physical Biochemistry, University of Regensburg
- 14:40 **ATP synthase and cristae biogenesis**
Karen Davies
Lawrence Berkeley National Lab, Berkeley, USA
- 15:00 **Optogenetic analysis of cell physiology and neural circuit function**
Alexander Gottschalk
BMLS and Institute of Biophysical Chemistry, Goethe University
- 15:20 **Structures of rotary ATPases from bacteria, chloroplasts and mitochondria and their role in human health**
Thomas Meier
Centre for Structural Biology, Imperial College, London, UK
- 15:40 Coffee break
- 16:10 **Antibiotic Resistance: Mechanistic insights into efflux pumps**
Martin Pos
Institute of Biochemistry, Goethe University
- 16:30 **Addressing dynamics: conformational trapping of solute carriers**
Eric Geertsma
Institute of Biochemistry, Goethe University
- 16:50 **Regulation of lipid saturation without sensing membrane fluidity**
Robert Ernst
Center for Molecular Signaling, Saarland University
- 17:10 **Proteostasis modulation by cellular stress responses**
Christian Münch
Institute of Biochemistry II, Goethe University
- 17:30 **Closing remarks**
Volker Dötsch
BMLS and Institute of Biophysical Chemistry, Goethe University