

PROGRAM

Wednesday, June 7th

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| 12:00 - 13:00 | Registration & Snacks |
| 13:00 - 13:15 | Klaus Benndorf, Jena <i>Opening/Welcome</i> |
| Session I | Chair: Klaus Benndorf, Jena |
| 13:15 - 14:00 | William N. Zagotta, Seattle <i>Molecular mechanisms of regulation of ion channels by intracellular domains</i> |
| 14:00 - 14:45 | Martin Biel, Munich <i>Two-pore cation channels of the endolysosomal system</i> |
| 14:45 - 15:00 | Christian Karras/Jessica Tröger, Jena <i>A fast multi-channel structured illumination microscope for enlightening inhibitory neurotransmitter receptor organization and dynamics</i> |
| 15:00 - 15:30 | Coffee & Tea |
| Session II | Chair: Markus Sauer, Würzburg |
| 15:30 - 16:15 | Claus Seidel, Düsseldorf <i>Quantitative FRET image spectroscopy and integrative modeling unravel the structure and dynamics of biomolecular systems</i> |
| 16:15 - 17:00 | Christian Eggeling, Oxford <i>Membrane bioactivity: New insights from super-resolution STED(-FCS) microscopy</i> |
| 17:00 - 17:15 | Thomas Heitkamp, Jena <i>Purification of active mNeonGreen-tagged neurotensin receptor 1 and FRET-based analysis of ligand binding</i> |
| 17:15 - 17:45 | Coffee & Tea |
| 17:45 - 18:30 | Erwin Neher, Göttingen <i>Short-term synaptic plasticity: Katz's concept in the light of recent results from the calyx of Held</i> |
| 18:30 - | Reception & Poster Session |

Thursday, June 8th**Session III**Chair: **Manfred Heckmann, Würzburg**

9:00 – 9:45

Horst Vogel, Lausanne*Transmembrane signaling: From single cells to single molecules*

9:45 – 10:30

Daniel Choquet, Bordeaux*Nanoscale organization of glutamate receptors and synaptic function*

10:30 – 10:45

Gerti Beliu, Würzburg*Unnatural amino acids for live cell labeling and super-resolution microscopy*

10:45 - 11:15

Coffee & Tea

Session IVChair: **Britta Qualmann, Jena**

11:15 – 12:00

Istvan Katona, Budapest*Cell-type-specific correlated confocal and super-resolution imaging in brain circuits by VividSTORM*

12:00 – 12:45

Dion Dickmann, Los Angeles*Active zones as substrates for the homeostatic modulation of synaptic strength*

12:45 – 13:00

Andrea Kliewer, Jena*Carboxyl-terminal multisite phosphorylation regulates μ -opioid receptor desensitization and tolerance*

13:00 – 14:30

Lunch & Poster Session

Session VChair: **Katrin Heinze, Würzburg**

14:30 - 15:15

Viacheslav Nikolaev, Hamburg*FRET and scanning ion conductance microscopy to study receptor/cyclic nucleotide signaling in microdomains*

15:15 – 15:45

Klaus Benndorf, Jena*Activation gating in HCN2 channels evoked by voltage and cAMP*

15:45 - 16:15

Tobias Langenhan, Leipzig*Converting force into signal: Metabotropic mechanosensing through adhesion GPCRs*

16:15- 16:45

Coffee & Tea

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| Session VI | Chair: Carsten Hoffmann, Jena |
| 16:45 - 17:15 | Martin Lohse, Berlin <i>Spatio-temporal signalling of G-protein-coupled receptors</i> |
| 17:15 - 17:45 | Markus Sauer, Würzburg <i>Super-resolution microscopy coming of age: from concepts to biomedical applications</i> |
| 17:45 – 18:15 | Dietmar Geiger, Würzburg <i>Resolving dynamic interactions within the Arabidopsis guard cell hormone-receptor anion-channel complex</i> |
| 19:30 – 22:30 | Conference Dinner On board the ship “Alte Liebe”. Meeting/embarcation point: 19:15 at “Alter Kranen” (a historic crane on the Main River, at a red- yellow kiosk) |

Friday, June 9th

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| Session VII | Chair: Jana Kusch, Jena |
| 9:00 – 9:45 | Richard Blunck, Montréal <i>Using fluorescence spectroscopy to study structure-function relations of ion channels</i> |
| 9:45 - 10:30 | Andreas Reiner, Bochum <i>Optical control of glutamate receptors: Mechanistic insights and application to synaptic signaling</i> |
| 10:30 - 11:00 | Coffee & Tea |
| Session VIII | Chair: Robert Kittel, Würzburg |
| 11:00 – 11:30 | Mike Heilemann, Frankfurt <i>Counting subunits within receptor complexes using single-molecule localization microscopy</i> |
| 11:30 – 12:00 | Katrin Heinze, Würzburg <i>Boosting membrane imaging and spectroscopy by optoplasmonics</i> |
| 12:00 – 12:30 | Carsten Hoffmann, Jena <i>Photopharmacology meets muscarinic receptors</i> |
| 12:30 | Klaus Benndorf, Jena; Markus Sauer, Würzburg <i>Closing Remarks</i> |
| 12:45 | Light Lunch |