

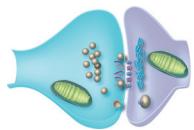
# Quantitative Synaptology

## SFB 1286

# symposium

27. | 28. | 29.  
**HANNOVER**  
**Juni 2022**

LEONARDO<sub>HOTEL</sub>



## 27. June 2022

<b>14:00h</b>	<b>Opening</b>	<i>Silvio O. Rizzoli, Greeting and introduction</i>
<b>14:15h</b>	<b>Ben Cooper</b>	<i>3D morphology of synapses in action: resolving ultrastructure-function relationships in cultured brain slices</i>
<b>14:40h</b>	<b>Linnaea E. Ostroff</b>	<i>Changes in spine apparatus structure during long-term memory</i>
<b>15:05h</b>	<b>Marilyn Tirard</b>	<i>Sumoylation at Synapses</i>
<b>15:30h</b>	<b>Elisa D'Este</b>	<i>New perspectives on PSD-95 plasticity</i>
<b>15:55h</b>	<b>Coffee Break</b>	
<b>16:25h</b>	<b>Oliver Schlüter</b>	<i>How postsynaptic signaling scaffolds shape synaptic states</i>
<b>16:50h</b>	<b>Christoph Fahlke</b>	<i>Molecular physiology of vesicular glutamate transporters</i>
<b>17:15h</b>	<b>Jürgen Klingauf</b>	<i>Visualizing single synaptic vesicle exocytosis and endocytosis</i>
<b>17:40h</b>	<b>Haris Alvanos</b>	<i>Presynaptic neuromodulation: an investigation at the mouse auditory brainstem</i>
<b>18:05h</b>	<b>Mark H. Ellisman</b>	<b>Keynote</b> <i>Multiscale-multimodal imaging of the brain: revealing secrets hiding in plain sight</i>
<b>18:45h</b>	<b>End</b>	



GEORG-AUGUST-UNIVERSITÄT  
GÖTTINGEN



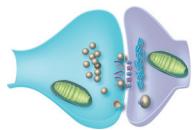
NanoTag  
Biotechnologies



LEIBNIZ  
FORSCHUNGSIINSTITUT  
FÜR MOLEKULARE  
PHARMAKOLOGIE



**MAX-PLANCK-INSTITUT**  
FÜR MULTIDISziplinäre NATURWISSENSCHAFTEN



## 28. June 2022

### 08:00h Opening

*Silvio O. Rizzoli*

- 08:10h **Claudia Steinem** Activation of collybistin: an *in vitro* study
- 08:35h **Felipe Opazo** Nanobodies for the visualization of synaptic protein
- 09:00h **Michael Kreutz** From synapse to nucleus and back again
- 09:25h **Chad Grabner** Organization of the mouse rod photoreceptor active zone
- 09:50h **Paul De Koninck** Dendritic membrane cytoskeleton remodeling: mechanisms and function

### 10:15h Coffee Break

- 10:45h **Volker Haucke** Membrane dynamics at synapses
- 11:10h **Uri Manor** Deep learning-based tools for measuring synaptogenesis *in vivo*
- 11:35h **Ch. Rosenmund** Regulation of neurotransmitter release by syntaxin-1
- 12:00h **R. F.-Busnadio** Molecular organization of synaptic vesicles

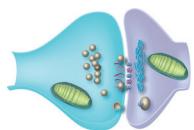
### 12:25h Break

- 14:10h **Radu Aricescu** The wide wild world of human GABA<sub>A</sub> receptors
- 14:35h **Sarah Köster** Biophysical methods to measure interactions in neuroscience
- 15:00h **Christian Tetzlaff** The dynamics of molecular condensates in the synapse
- 15:25h **C. Wichmann** Structural maturation of endbulb of Held active zones

### 15:50h Coffee Break

- 16:20h **Silvio O. Rizzoli** Recycling in synapses: only vesicles and receptors do it?
- 16:45h **Andrew Ewing** Electrochemical measurements of temporal aspects of exocytotic plasticity
- 17:10h **V. Priesemann** Mechanisms of synaptic adaptation to stabilizing network dynamics
- 17:35h **E. Gundelfinger** Keynote  
*Role of Bassoon in organizing presynaptic protein turnover*

### 18:15h End



## 29. June 2022

08:00h	<b>Tiago Outeiro</b>	<i>Synaptic effects of alpha-synuclein: insight into synucleinopathies</i>
08:25h	<b>D. Milovanovic</b>	<i>Single-molecule imaging reveals synaptic vesicle confinement by liquid-liquid phase separation</i>
08:50h	<b>Inna Slutsky</b>	<i>Homeostasis of hippocampal circuits: From basic principles to malfunctions</i>
09:15h	<b>Stefan Rotter</b>	<i>Structural self-organization of networks: Hebb's postulate reconsidered</i>
09:40h	<b>Coffee Break</b>	
10:10h	<b>M. Kneussel</b>	<i>Microtubule severing and Tubulin PTMs in regulating synaptic functions</i>
10:35h	<b>Nhu Phan</b>	<i>Molecular organization in nerve cells with mass spectrometry imaging – from non-target to specific targeted imaging</i>
11:00h	<b>Stefan Bonn</b>	<i>Integration, analysis and novel algorithms for synaptic omics data</i>
11:25h	<b>Noa Lipstein</b>	<i>Synaptic dysfunction in brain disease</i>
11:50h	<b>Break</b>	
13:30h	<b>F. Lavoie-Cardinal</b>	<i>Machine learning-assisted super-resolution microscopy of synaptic structure and function</i>
13:55h	<b>Michael Fauth</b>	<i>Actin-dependent dynamics of spine geometry</i>
14:20h	<b>Stephan Sigrist</b>	<i>Active zone remodeling in behavioral adaptation</i>
14:45h	<b>Coffee Break</b>	
15:15h	<b>Ch. Henneberger</b>	<i>Structural constraints and dynamics of synaptic neuron-astrocyte interactions</i>
15:40h	<b>Stefan Klumpp</b>	<i>The synapse – a complex physical environment</i>
16:05h	<b>Christine Rose</b>	<i>Keynote Intracellular ATP and sodium: an intimate couple</i>
16:45h	<b>End</b>	