

# ISCCB 2015 - Invited Speakers | [isccb2015.mtci.com.au/](http://isccb2015.mtci.com.au/)



**Erwin Neher** | Nobel Laureate | MPI for Biophysical Chemistry, Goettingen

Along with Bert Sakmann, he was awarded the Nobel Prize in Physiology or Medicine in 1991 for "discoveries concerning the function of single ion channels in cells". Neher and Sakmann were the first to record the currents of single ion channels on a live cell (the first recorded using the lipid bilayer method) through their development of the patch-clamp technique ...

**Reinhard Jahn** | MPI for Biophysical Chemistry

Molecular mechanisms of neuronal exocytosis, structural changes of proteins involved in membrane fusion, reconstitution of regulated exocytosis and other intracellular fusion reactions in cell-free systems ...



**Nils Brose** | MPI für Experimentelle Medizin

Research in our laboratory focuses on molecular mechanisms of synapse development and function in the mammalian central nervous system ...

**Peter Dunkley** | University of Newcastle (Aus)

Research focus is on signal transduction in neuronal and endocrine tissues and especially on protein phosphorylation. ...



**Lee Eiden** | NIH

THE Molecular Neuroscience group aims to identify the cellular signaling components that allow neuropeptide GPCRs to control stress-responsive gene transcription...



**Anna Fetjova** | Leibniz Institute for Neurobiology

We are interested in cellular and molecular mechanisms underlying plasticity of presynaptic functions ...

**Mike Cousin** | University of Edinburgh

Our focus is on the molecular mechanisms involved in the fusion, retrieval and trafficking of synaptic vesicles within the central nervous system...



**Maite Hadjadjje-Montero** | University of Rouen

Pathophysiology of Neuroendocrine tumors; molecular mechanisms of neurosecretion; identification of markers for the diagnosis and prognosis of neuroendocrine tumors ...

**Volker Haucke** | FMP Berlin

Focus is on the visualization and manipulation of the endocytic machinery and of endosomal membrane organization using a combination of biochemical, genetic, chemical, and optical imaging approaches...



**Richard Huganir** | Johns Hopkins University

Our focus is on glutamate receptors, major excitatory receptors in the brain. The two classes are: AMPA and NMDA receptors. AMPA receptors mediate rapid ...



**Michael Kozlov** | Tel Aviv University

Our field can be defined as theoretical mechano-biophysics. We work on the mechanics and dynamics of cell membranes, and mechanical properties of actin cytoskeleton and cell adhesions...

**Manfred Lindau**

We use a combination of fluorescence-based imaging - live cell confocal and total internal reflection (TIRF) microscopy together with *in vivo* systems ...



**Thomas Martin**

Focus is on the molecular mechanisms that underlie stimulus-secretion coupling, the process by which receptor occupancy and signal transduction events regulate the secretion of hormones...

**Jens Rettig**

Our research is directed towards elucidating the molecular mechanisms underlying synaptic transmission in neurons, neuroendocrine cells and immune cells...



**Josep Rizo**

Our main research focus is the study of the mechanisms of neurotransmitter release and intracellular membrane fusion using structural biology, a variety of biophysical techniques and reconstitution approaches...



**Phil Robinson**

We study the molecular mechanisms of how signals are sent from one cell to another in the body, with a focus on nerve cell signalling and developing new treatments for epilepsy and other neurological disorders...

**Rüdiger Rudolf** | University of Heidelberg

In analogy to other ligand-gated ion channels of the central nervous system, nicotinic acetylcholine receptors (AChRs) located at the postsynaptic side of neuromuscular junctions (NMJs) display a complex activity-dependent intracellular trafficking, including exocytosis, endocytosis, recycling, and autophagic degradation...



**Corey Smith** | Case Western Reserve University

We study the synaptic peptide transmitter regulation of hormone release at the splanchnic-adrenal synapse and the regulation of activity-dependent differential transmitter release from neuroendocrine adrenal medullary chromaffin cells ...

**Jakob Sørensen** | University of Copenhagen

Vti1a is absent from mature secretory vesicles in adrenal chromaffin cells, but localizes to a compartment near the trans-Golgi network, partially overlapping with syntaxin-6 ...



**Matthijs Verhage** | CNCR, Amsterdam

The department studies the presynaptic nerve terminal in health and disease and also contributes to the understanding of complex traits in rodents and humans...

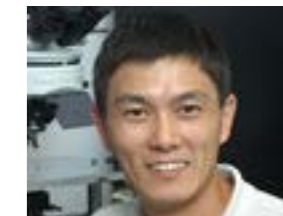


**Shuzo Sugita** | University Health Network, Canada

The major interest of the laboratory concerns neurotransmitter release in the brain, a key element constituting the complex functions of the brain...

**Ling-Gang Wu** | Neuroscience, NIH

We investigate the fundamental process of synaptic transmission: how calcium channels control exocytosis, ... and how synaptic plasticity is influenced by calcium channels, fusion pore opening and endocytosis...



**Tao Xu** | Chinese Academy of Sciences

We identify key proteins and regulatory mechanisms involved in the docking, priming and fusion of secretory vesicles... and develop super-resolution imaging tools, together with spectroscopic, biophysical and electron microscopy techniques...

**Robert Zorec** | University of Ljubljana

We use innovative technologies and scientific expertise to advance human potential for treating cancer and neurological diseases...

