Ribbon Synapses Symposium

Day 1, Thursday, November 6th, 2025	
08:00 - 08:45	**Registration**
08:45 - 09:05	**Opening remarks: Tobias Moser and Ursula Schlötzer-Schrehardt**
09:05 - 11:15	*Session 1: Ribbon Synapses in Eye and Ear* *(Chair: Mark Rutherford and Tim Gollisch)*
09:05 - 09:50	**Anthony Ricci:** „Where We Are With Hair Cell Ribbon Synapses"
09:50 - 10:10	**Roos Voorn:** „It Takes Two to Tango: Developmental Plasticity at the Auditory Ribbon Pre- and Postsynapse"
10:10 - 10:55	**Jonathan Demb:** „Role of Dynamin at Ribbon Synapses in the Retina"
10:55 - 11:15	**Leon Bösche:** „Perturbing Runx1-Dependent SGN Identity Alters Presynaptic Ca^{2+} Channel Gradient via Transsynaptic Signaling"
11:15 - 11:45	***Posters and coffee break***
11:45 - 12:55	*Session 2: Structure and Function of Ribbon Synapses I* *(Chair: Sonja Pyott)*
11:45 - 12:20	**Lisa Goodrich:** „Making and Breaking Ribbon Synapses"
12:20 - 12:55	**Chad Grabner:** „The Synaptic Ribbon Functionalizes the Molecular Topology of Rod Photoreceptor Synapses"
12:55 - 14:00	***Lunch break***
14:00 - 15:30	*Session 3: Structure and Function of Ribbon Synapses II* *(Chair: Anna Fejtova)*
14:00 - 14:35	**Anna Lysakowski:** „Ultrastructural Analysis of the Cellular and Synaptic Architecture of the Mouse Vestibular Periphery, with Consideration of Quantal Versus Non-quantal Transmission in the Vestibular Calyx"
14:35 - 14:55	**Matthias Ganglberger:** „Proteomic Insights into Cav1.4 Variant-Induced Rod and Cone Phenotypes"
14:55 - 15:30	**Mark Rutherford:** „Calcium-Permeable AMPA receptors at the IHC-SGN ribbon synapse"
15:30 - 16:00	***Posters and coffee break***
16:00 - 18:05	*Session 4: Ca^{2+} Signaling and Ca^{2+} Sensing at Ribbon Synapses* *(Chair: Tina Pangrsic)*
16:00 - 16:35	**Katie Kindt:** „TBA"
16:35 - 17:10	**Lina Jaime Tobon:** „Cholesterol: A Key Player of Inner Hair Cell Synaptic Diversity?"
17:10 - 17:45	**Jutta Engel:** „Synaptic Plasticity Versus Excitotoxicity at Inner Hair Cell Ribbon Synapses in Cav1.3-$DCRD^{HA/HA}$ Mice and $Slack^{-/-}$ Mice"
17:45 - 18:05	**Olivia Molano:** „Visualizing how Presynaptic Activity Shapes Ribbon Synapse Formation in Zebrafish Hair Cells"
18:05 - 19:00	***Drinks and Posters***
19:00 -	***Joint Conference Dinner at the MPI-NAT CC Cafeteria***

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SFB 1690 Disease Mechanisms & Functional Restoration of Sensory and Motor Systems

MBExC Multiscale Bioimaging Cluster of Excellence

SFB 1286

Day 2, Friday, November 7th, 2025	
09:00 - 10:50	*Session 5: Emerging Methods (Chair: Carolin Wichmann)*
09:00 - 09:35	**Yunfeng Hua:** „Electron Microscopic Reconstruction of the Cochlear Hair Cell and Neural Circuitry”
09:35 - 10:10	**Constantin Pape:** „Image Analysis Tools for Studying the Ribbon Synapse in Electron and Light-Sheet Microscopy”
10:10 - 10:30	**Natalia Evdokimova:** „Mechanisms of Lipid Binding by Otoferlin Studied by Molecular Dynamics Simulations”
10:30 - 10:50	**Angeliki Koufali:** „Human Otic Bioengineered Neuronal Organoids (oBENOs) Mimic Early Inner Ear Development and Physiology”
10:50 - 11:20	***Posters and coffee break***
11:20 - 12:30	*Session 6: Sensory Disease and Restoration (Chair: Nicola Strenzke)*
11:20 - 11:55	**Yilai Shuh:** „Gene Therapies for Congenital Deafness: From Bench to Bedside”
11:55 - 12:30	**Sharon Kujawa:** „Neural Response Recovery After IHC Synapse Loss”
12:30 - 13:30	***Lunch break***
13:30 - 15:20	*Session 7: Encoding of Sensory Information (Chair: Juan Goutman)*
13:30 - 14:05	**Radha Kalluri:** „The Biophysical Properties of Spiral Ganglion Neurons”
14:05 - 14:25	**Lejla Sose:** „Probing the Role of Lateral Olivocochlear Efferent Innervation in Afferent Sound Encoding”
14:25 - 15:00	**Régis Nouvian:** „pH-Dependence of the Spiking Activity in Developing Inner Hair Cells”
15:00 - 15:20	**Christian Vogl:** „A forgotten parallel afferent pathway in the cochlea”
15:20 - 15:50	***Posters and coffee break***
15:50 - 17:25	*Session 8: Key Molecular Quests (Chair: Tobias Moser)*
15:50 - 16:25	**Saaid Safieddine:** „The Paradox of Ribbon Synapse Molecular Actors: When Deletion Stage Matters”
16:25 - 16:45	**Lisa Janina Klotz-Weigand:** „Elucidating the Role of mGluR7 Heterodimers at the Inner Hair Cell Ribbon Synapse”
16:45 - 17:05	**André Deutschmann:** „PKCa-Dependent Interaction of Otoferlin With Calbindin or Myosin VI Modulates Inner Hair Cell Endocytosis”
17:05 - 17:25	**Abigail Trebilcock:** „Impact of Disrupted Otoferlin Ca^{2+} Binding on IHC Synaptic Transmission”
17:25 - 17:40	***Best poster award / closing remarks (Tobias Moser)***