

Christian Rosenmund

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Curriculum vitae

since 2016	Charité Center Basic Sciences CC 2, Institute of Neurophysiology
2014 – 2018	Coordinator, Berlin Institute of Health Collaborative Research
2012 – 2015	Speaker, NeuroCure Cluster of Excellence, Charité Medical School, Berlin
since 2009	Member, Board of Directors, NeuroCure Cluster of Excellence
since 2009	Speaker, Collaborative Research Center (SFB) 665, “Developmental Disturbances in the Nervous System”
since 2009	Professor (W3), Neurobiology, NeuroCure Cluster of Excellence, Charité 2008 -
2010	Professor, Department of Molecular and Human Genetics and Department of Neuroscience (joint primary appointment), Baylor College of Medicine, Houston
2005 - 2008	Director, Mouse Synaptic Plasticity Core, Mental Retardation Research Center, Baylor College of Medicine, Houston
2003 - 2008	Associate Professor, Department of Molecular and Human Genetics and Department of Neuroscience (joint primary appointment), Baylor College of Medicine, Houston
1999 - 2003	Lecturer in Physiology, University of Göttingen, Germany
1998 - 2003	Principal investigator and Heisenberg fellow, Department of Membrane Biophysics, Max Planck Institute for Biophysical Chemistry, Göttingen
1995 - 1997	Helmholtz fellow, Workgroup Cellular Neurobiology (Dr. Marty), Max Planck Institute for Biophysical Chemistry, Göttingen
1993 - 1995	Howard Hughes fellow (Advisor: Dr. Charles Stevens), Molecular Neurobiology Laboratories, The Salk Institute, La Jolla, California
1989 - 1993	PhD in Physiology (Advisor: Prof. G. Westbrook), Vollum Institute, Oregon Health Sciences University, Portland, Oregon
1984 - 1989	Studies in Pharmacy, University of Frankfurt/Main, 3rd State examination in Pharmacy

Research fields

Our group is active in the field of cellular and molecular neurobiology with the following major areas:

- Molecular physiology of the synapse
- Modulation and development of synaptic transmission, plasticity, and neuronal networks
- “Synaptopathy” in neurological-psychiatric disorders such as epilepsy, Alzheimer’s disease, mental retardation, and autism

Activities in the scientific community, honors, awards

since 2015	Board of Trustees of the Schram Foundation, Essen
since 2015	Scientific Advisory Board - Department of Biomedicine Basel, Switzerland
2014 - 2015	Lillie Award, Erik M. Jorgensen and Christian Rosenmund

since 2012 Reviewing Editor eLIFE
2010 - 2015 Advanced Grant, European Research Council (ERC)
2007 - 2010 Human Frontier Science Program award RGP35/2007
2005 - 2010 Two principal investigator NIH R01 research grants (NS050655; NS051262)
2005 - 2009 Member, NIH SYN study section, CSR, NIH
2005 - 2010 Member, Faculty of 1000

Selected publications

Rost BR, Schneider F, Grauel MK, Wozny C, Bentz CG, Blessing A, Rosenmund T, Jentsch TJ, Schmitz D, Hegemann P, Rosenmund C. Optogenetic acidification of synaptic vesicles and lysosomes. *Nat Neurosci*. 2015;18(12):1845-52.

Watanabe S, Trimbuch T, Camacho-Perez M, Rost BR, Brokowski B, Sohl-Kielczynski B, Felies A, Davis MW, Rosenmund C, Jorgensen EM. Clathrin regenerates synaptic vesicles from endosomes. *Nature*. 2014;515(7526):228-33.

Trimbuch T, Xu J, Flaherty D, Tomchick DR, Rizo J, Rosenmund C. Re-examining how complexin inhibits neurotransmitter release. *Elife*. 2014;3:e02391.

Chang CL, Trimbuch T, Chao HT, Jordan JC, Herman MA, Rosenmund C. Investigation of synapse formation and function in a glutamatergic-GABAergic two-neuron microcircuit. *J Neurosci*. 2014;34(3):855-68.

Watanabe S, Rost BR, Camacho-Perez M, Davis MW, Sohl-Kielczynski B, Rosenmund C, Jorgensen EM. Ultrafast endocytosis at mouse hippocampal synapses. *Nature*. 2013;504(7479):242-7.

Arancillo M, Min SW, Gerber S, Munster-Wandowski A, Wu YJ, Herman M, Trimbuch T, Rah JC, Ahnert-Hilger G, Riedel D, Sudhof TC, Rosenmund C. Titration of Syntaxin1 in mammalian synapses reveals multiple roles in vesicle docking, priming, and release probability. *J Neurosci*. 2013;33(42):16698-714.

Weston MC, Nehring RB, Wojcik SM, Rosenmund C. Interplay between VGLUT isoforms and endophilin A1 regulates neurotransmitter release and short-term plasticity. *Neuron*. 2011;69(6):1147-59.

Chao HT, Chen H, Samaco RC, Xue M, Chahrour M, Yoo J, Neul JL, Gong S, Lu HC, Heintz N, Ekker M, Rubenstein JL, Noebels JL, Rosenmund C, Zoghbi HY. Dysfunction in GABA signalling mediates autism-like stereotypies and Rett syndrome phenotypes. *Nature*. 2010;468(7321):263-9.

Xue M, Lin YQ, Pan H, Reim K, Deng H, Bellen HJ, Rosenmund C. Tilting the balance between facilitatory and inhibitory functions of mammalian and *Drosophila* Complexins orchestrates synaptic vesicle exocytosis. *Neuron*. 2009;64(3):367-80.

Xue M, Ma C, Craig TK, Rosenmund C, Rizo J. The Janus-faced nature of the C(2)B domain is fundamental for synaptotagmin-1 function. *Nat Struct Mol Biol*. 2008;15(11):1160-8.

Gerber SH, Rah JC, Min SW, Liu X, de Wit H, Dulubova I, Meyer AC, Rizo J, Arancillo M, Hammer RE, Verhage M, Rosenmund C, Sudhof TC. Conformational switch of syntaxin-1 controls synaptic vesicle fusion. *Science (New York, NY)*. 2008;321(5895):1507-10.

Chao HT, Zoghbi HY, Rosenmund C. MeCP2 controls excitatory synaptic strength by regulating glutamatergic synapse number. *Neuron*. 2007;56(1):58-65.