

Christian Rosenmund

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Curriculum vitae

- Since 2016 Full professor (W3), Institute of Neurophysiology, Charité, Berlin
- Since 2014 Co-coordinator, Collaborative Research Grant 'Towards a better understanding and diagnosis of congenital disease', Berlin Institute of Health (BIH)
- 2012 – 2015 Spokesperson, NeuroCure – Cluster of Excellence, Berlin
- Since 2009 Member, board of directors, NeuroCure – Cluster of Excellence, Berlin
- Since 2009 Spokesperson, Collaborative Research Center (SFB) 665 'Developmental disturbances in the nervous system', German Research Foundation (DFG)
- 2009 – 2016 Full professor (W3), Neurobiology, NeuroCure – Cluster of Excellence, Charité, Berlin
- 2009 – 2010 Professor, Department of Molecular and Human Genetics and Department of Neuroscience, Baylor College of Medicine, Houston, US
- 2005 – 2008 Director, Mouse Synaptic Plasticity Core Facility, Mental Retardation Research Center, Baylor College of Medicine, Houston, US
- 2003 – 2008 Associate professor, Department of Molecular and Human Genetics and Department of Neuroscience, Baylor College of Medicine, Houston, US
- 1999 – 2003 Lecturer in Physiology, Georg-August-Universität Göttingen
- 1998 – 2003 Principal investigator and Heisenberg Professorship, German Research Foundation (DFG), Department of Membrane Biophysics, Max Planck Institute for Biophysical Chemistry, Göttingen
- 1995 – 1997 Helmholtz Fellow, workgroup Cellular Neurobiology, Max Planck Institute for Biophysical Chemistry, Göttingen
- 1993 – 1995 Howard Hughes Fellow, Molecular Neurobiology Laboratories, The Salk Institute, US
- 1989 – 1993 PhD in Physiology, Oregon Health and Science University, Portland, US
- 1984 – 1989 Studies in Pharmacy, Goethe-Universität Frankfurt am Main

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 2016 Member, board of directors, Einstein Center for Neurosciences Berlin
- Since 2015 Member, board of trustees of the Schram Foundation, Essen
- Since 2015 Member, scientific advisory board, Departement Biomedizin Basel, CH
- 2014 – 2015 Lillie Awards for Collaborative Research (with Erik M. Jorgensen), US
- Since 2012 Reviewing Editor eLIFE
- 2010 – 2015 European Research Council (ERC), Advanced Grant
- 2007 – 2010 Long-Term Fellowship, Human Frontier Science Program (HFSP)
- 2005 – 2009 Member, Synapses, Cytoskeleton, and Trafficking Study Section, National Institutes of Health (NIH), US

Selected publications

- Chang S, Trimbuch T, Rosenmund C. Synaptotagmin-1 drives synchronous Ca⁽²⁺⁾-triggered fusion by C2B-domain-mediated synaptic-vesicle-membrane attachment. *Nat Neurosci* 2018; 21:33-40
- Sampathkumar C, Wu YJ, Vadhvani M, Trimbuch T, Eickholt B, Rosenmund C. Loss of MeCP2 disrupts cell autonomous and autocrine BDNF signaling in mouse glutamatergic neurons. *Elife* 2016; 5:e19374
- 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; 18:1845-1852
- 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; 515:228-233 | *corresponding authors
- Trimbuch T, Xu J, Flaherty D, Tomchick DR, Rizo J, Rosenmund C. Re-examining how complexin inhibits neurotransmitter release. *Elife* 2014; 3:e02391
- Watanabe S, Rost BR, Camacho-Perez M, Davis MW, Sohl-Kielczynski B, Rosenmund C*, Jorgensen EM*. Ultrafast endocytosis at mouse hippocampal synapses. *Nature* 2013; 504:242-247 | *corresponding authors
- Weston MC, Nehring RB, Wojcik SM, Rosenmund C. Interplay between VGLUT isoforms and endophilin A1 regulates neurotransmitter release and short-term plasticity. *Neuron* 2011; 69:1147-1159
- 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; 468:263-269 | *corresponding authors
- 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; 64:367-380
- Chao HT, Zoghbi HY*, Rosenmund C*. MeCP2 controls excitatory synaptic strength by regulating glutamatergic synapse number. *Neuron* 2007; 56:58-65 | *corresponding authors