

## Dietmar Schmitz

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Neuroscience Research Center (NWFZ)  
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### Curriculum vitae

since 2015	Coordinator, NeuroCure – Cluster of Excellence, Berlin
since 2011	Speaker, German Center for Neurodegenerative Diseases (DZNE), Berlin
since 2008	Coordinator, Graduate School “Learning and Memory” (together with U. Heinemann)
since 2005	Chair, Neuroscience Research Center, Charité
since 2005	Professor (W3), Cellular and Molecular Neurosciences, Charité
2007 - 2012	Coordinator, NeuroCure Cluster of Excellence, Berlin
2002 - 2005	Assistant Professor, Neurophysiology, Charité
1999 - 2002	Postdoctoral fellow (Advisor: Prof. R. Nicoll), University of California, San Francisco
1997 - 1999	Postdoctoral fellow (Advisor: Prof. U. Heinemann), Department of Neurophysiology, Charité
1992 - 1997	PhD thesis, Department of Neurophysiology, University of Cologne and Charité
1994 - 1997	Studies in Medicine, Charité - Universitätsmedizin Berlin
1990 - 1994	Studies in Medicine, University of Cologne

### Research fields

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

- Cellular and molecular mechanisms of synaptic plasticity
- Modulation and development of synaptic transmission, plasticity, and neuronal networks
- Homeostatic plasticity, hyperexcitability, and epilepsy
- “Synaptopathy” in neurological-psychiatric disorders such as epilepsy, Alzheimer’s disease, mental retardation, and autism
- Functional genomics

### Activities in the scientific community, honors, awards

2012	Teaching Award, Graduate Program Medical Neurosciences, Charité
since 2011	Einstein Professor, Einstein Foundation Berlin
2008/09	Teaching Award, Graduate Program Medical Neurosciences, Charité
2005/06	Bernard Katz Award, Bert Sakmann and Alexander von Humboldt Foundation
2005	Schilling Award, German Neuroscience Society
2004/05	Teaching Award, Graduate Program Medical Neurosciences, Charité
2004	Appointed to the Otto Loewi Center for Cellular and Molecular Neurobiology, Israel
2004	Appointed to the Young Academy (Junge Akademie), the Berlin-Brandenburg Academy of Sciences and Humanities (Berlin-Brandenburgische Akademie der Wissenschaften - BBAW) and the German Academy of Natural Scientists (Leopoldina)
2003/04	Teaching Award, Graduate Program Medical Neurosciences, Charité

2002 Junior research group, Emmy Noether Program  
1998 Humboldt Award for Best Thesis, Humboldt-Universität zu Berlin

### Selected publications

Stempel AV, Stumpf A, Zhang HY, Ozdogan T, Pannasch U, Theis AK, Otte DM, Wojtalla A, Racz I, Ponomarenko A, Xi ZX, Zimmer A, Schmitz D. Cannabinoid Type 2 Receptors Mediate a Cell Type-Specific Plasticity in the Hippocampus. *Neuron*. 2016;90(4):795-809.

Johenning FW, Theis AK, Pannasch U, Ruckl M, Rudiger S, Schmitz D. Ryanodine Receptor Activation Induces Long-Term Plasticity of Spine Calcium Dynamics. *PLoS Biol*. 2015;13(6):e1002181.

Beed P, Gundlfinger A, Schneiderbauer S, Song J, Bohm C, Burgalossi A, Brecht M, Vida I, Schmitz D. Inhibitory gradient along the dorsoventral axis in the medial entorhinal cortex. *Neuron*. 2013;79(6):1197-207.

Dugladze T, Schmitz D, Whittington MA, Vida I, Gloveli T. Segregation of axonal and somatic activity during fast network oscillations. *Science (New York, NY)*. 2012;336(6087):1458-61.

Maier N, Tejero-Cantero A, Dorn AL, Winterer J, Beed PS, Morris G, Kempter R, Poulet JF, Leibold C, Schmitz D. Coherent phasic excitation during hippocampal ripples. *Neuron*. 2011;72(1):137-52.

Liu KS, Siebert M, Mertel S, Knoche E, Wegener S, Wichmann C, Matkovic T, Muhammad K, Depner H, Mettke C, Buckers J, Hell SW, Muller M, Davis GW, Schmitz D, Sigrist SJ. RIM-binding protein, a central part of the active zone, is essential for neurotransmitter release. *Science (New York, NY)*. 2011;334(6062):1565-9.

Beed P, Bendels MH, Wiegand HF, Leibold C, Johenning FW, Schmitz D. Analysis of excitatory microcircuitry in the medial entorhinal cortex reveals cell-type-specific differences. *Neuron*. 2010;68(6):1059-66.

Trimbuch T, Beed P, Vogt J, Schuchmann S, Maier N, Kintscher M, Breustedt J, Schuelke M, Streu N, Kieselmann O, Brunk I, Laube G, Strauss U, Battefeld A, Wende H, Birchmeier C, Wiese S, Sendtner M, Kawabe H, Kishimoto-Suga M, Brose N, Baumgart J, Geist B, Aoki J, Savaskan NE, Brauer AU, Chun J, Ninnemann O, Schmitz D, Nitsch R. Synaptic PRG-1 modulates excitatory transmission via lipid phosphate-mediated signaling. *Cell*. 2009;138(6):1222-35.

Schmitz D, Mellor J, Breustedt J, Nicoll RA. Presynaptic kainate receptors impart an associative property to hippocampal mossy fiber long-term potentiation. *Nat Neurosci*. 2003;6(10):1058-63.

Mellor J, Nicoll RA, Schmitz D. Mediation of hippocampal mossy fiber long-term potentiation by presynaptic Ih channels. *Science (New York, NY)*. 2002;295(5552):143-7.

\* corresponding author/equal contribution