Dietmar Schmitz

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Curriculum vitae

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
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

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

Beed P, Gundlfinger A, Schneiderbauer S, Song J, Bö hm C, Burgalossi A, Brecht M, Vida I, Leibold C, Schmitz D. Inhibitory gradient along the dorso-ventral 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. 2012; 336(6087), 1458-61.

Schmeisser MJ*, Ey E*, Wegener S*, Bockmann J, Stempel AV, Kuebler A, Janssen AL, Udvardi PT, Shiban E, Spilker C, Balschun D, Skryabin BV, Dieck St, Smalla KH, Montag D, Leblond CS, Faure P, Torquet N, Le Sourd AM, Toro R, Grabrucker AM, Shoichet SA, Schmitz D, Kreutz MR, Bourgeron T, Gundelfinger ED, Boeckers TM. Autistic-like behaviours and hyperactivity in mice lacking ProSAP1/Shank2. Nature. 2012; 486(7402), 256-60. | *equal contribution

Liu KS*, Siebert M*, Mertel S*, Knoche E*, Wegener S*, Wichmann C, Matkovic T, Muhammad K, Depner H, Mettke C, Bückers J, Hell SW, Müller M, Davis GW, Schmitz D+, Sigrist SJ+. RIM-binding protein, a central part of the active zone, is essential for neurotransmitter release. Science. 2011; 334(6062), 1565-9. | *equal contribution; **corresponding authors

Maier N*, Tejero-Cantero A*, Dorrn AL, Winterer J, Beeds PS, Morris G, Kempter R, Poulet JFA*, Leibold C*, Schmitz D*. Coherent phasic excitation during hippocampal ripples. Neuron. 2011; 72(1), 137-52. | *equal contribution

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, 1059-66. | *equal contribution

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, 1222-35. | *equal contribution

Schuchmann S*, Schmitz D*, Rivera C, Vanhatalo S, Salmen B, Mackie K, Sipila ST, Voipio J, Kaila K. Experimental febrile seizures are precipitated by a hyperthermia-induced respiratory alkalosis. Nat Med. 2006; 12, 817-23. | *equal contribution

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, 1058-63.

Mellor J, Nicoll RA, Schmitz D. Mediation of hippocampal mossy fiber long-term potentiation by presynaptic Ih channels. Science. 2002; 295, 143-7.