

PROF. DR. MED. ANDREAS DRAGUHN

Date of birth: April 12, 1961

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Current position: Professor of Physiology, Director



CURRICULUM VITAE

University education

- 1981 – 1987 Studies of Medicine, University of Bonn, Germany
- 1982 – 1985 Studies of Physics, University of Bonn, Germany
- 1982 – 1987 Studies of Philosophy, University of Bonn, Germany

Scientific degrees

- 1999 Habilitation (venia legendi) for Physiology
Humboldt University Berlin, Germany. Mentor: Prof. Dr. Uwe Heinemann
- 1991 MD (Dr. med.), Subject: “Funktionelle Untersuchungen an heterolog exprimierten GABA-A-Rezeptoren: Beiträge zur Charakterisierung einer Genfamilie.” (Functional analysis of GABA-A receptors in heterologous expression systems: contributions to the characterization of a gene family)
University of Heidelberg, Germany. Supervisor: Prof. B. Sakmann

Professional experience

- 2002 – present Professor of Physiology and Chair, Institute of Physiology and Pathophysiology
University of Heidelberg, Germany
- 1998 – 2002 Senior research assistant, Department of Physiology
Humboldt University Berlin (Charité), Germany
- 1997 Senior Research fellow
University of Birmingham, UK, Prof. John G.R. Jefferys
- 1994 – 1998 Research Assistant/ Senior Research Assistant, Department of Physiology
Humboldt University Berlin (Charité), Germany
- 1992 – 1994 Scientific Assistant, Department of Physiology
University of Cologne, Germany, Prof. U. Heinemann
- 1990 – 1991 Internship (Elective: Neurology)
Städtisches Krankenhaus Remscheid, Germany
- 1987 – 1990 MD student
Max-Planck-Institute for Biophysical Chemistry, Göttingen, Germany, and Max-Planck-Institute for Experimental Medicine, Heidelberg, Germany. Supervisor: Prof. B. Sakmann

Awards and Honors

- 1996 European Research Grant
1980 – 1990 Fellowship by Studienstiftung des Deutschen Volkes

Editorial boards

- 2008 – present Contributing Editor of European Journal of Neuroscience
2011 – present Contributing Editor of IBRO's Neuroscience

Memberships and coordinating functions

- 2015 – present Speaker of CRC 1134 “Functional Ensembles: cellular components, patterned activity and plasticity of co-active neurons in local networks”
2014 – present Vice Dean for Studies of the Medical Faculty Heidelberg
2014 – present Treasurer-elect of the Federation of European Neuroscience Societies (FENS)
2008 – present Vice Director of the Interdisciplinary Center for Neuroscience at Heidelberg University
2009 – 2016 Member and spokesman (since 2012) of the Review Board for Neuroscience of the DFG (Deutsche Forschungsgemeinschaft)
2011 – 2014 Board Member of German Physiological Society
2002 – present Member of Interdisciplinary Center for Biomedical and Cultural Sciences at Heidelberg University
2010 – 2012 Fellow at the Marsilius Kolleg (Center for Advanced Study) at Heidelberg University
2004 – 2015 Board member and Treasurer of the NWG (Neurowissenschaftliche Gesellschaft) German Society for Neuroscience
2001 – 2015 Member of Expert Commission “Physiology” at the National Institute for Medical Exams (IMPP)
1996 – present Member of Society for Neuroscience, USA
1993 – present Member of German Society for Epileptology

Key publications

- Thome C, Kelly T, Yanez A, Schultz C, Engelhardt M, Cambridge SB, Both M, Draguhn A, Beck H, Egorov AV (2014) Axon-Carrying Dendrites Convey Privileged Synaptic Input in Hippocampal Neurons. *Neuron*, 83:1418-1430.
- Yanovsky Y, Ciatipis M, Draguhn A, Tort AB, Brankačk J (2014) Slow oscillations in the mouse hippocampus entrained by nasal respiration. *J Neurosci*. 34:5949-5964.
- Traub RD, Schmitz D, Maier N, Whittington MA, Draguhn A. (2012) Axonal properties determine somatic firing in a model of in vitro CA1 hippocampal sharp wave/ripples and persistent gamma oscillations. *Eur J Neurosci* 36:2650-2660.
- Bahner F, Weiss EK, Birke G, Maier N, Schmitz D, Rudolph U, Frotscher M, Traub RD, Both M, Draguhn A. (2011) Cellular correlate of assembly formation in oscillating hippocampal networks in vitro. *Proc Natl Acad Sci U S A* 108:E607-616.
- Lopantsev V, Both M, Draguhn A (2009) Rapid plasticity at inhibitory and excitatory synapses in the hippocampus induced by ictal epileptiform discharges. *Eur J Neurosci* 29:1153-1164.
- Hartmann K, Bruehl C, Golovko T, Draguhn A (2008) Fast homeostatic plasticity of inhibition via activity-dependent vesicular filling. *PLoS One* 3:e2979.
- Buzsaki G, Draguhn A (2004) Neuronal oscillations in cortical networks. *Science* 304:1926-1929.
- Maier N, Nimrich V, Draguhn A. (2003) Cellular and network mechanisms underlying spontaneous sharp wave-ripple complexes in mouse hippocampal slices. *J Physiol* 550:873-887.
- Draguhn A, Traub RD, Schmitz D, Jefferys JG. (1998) Electrical coupling underlies high-frequency oscillations in the hippocampus in vitro. *Nature* 394:189-192.
- Draguhn A, Verdorn TA, Ewert M, Seeburg PH, Sakmann B. (1990) Functional and molecular distinction between recombinant rat GABA-A receptor subtypes by Zn²⁺. *Neuron* 5:781-788.