Rosemarie Gantyn

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Curriculum vitae

2010	Senior Professor, Cluster of Excellence NeuroCure & Dept. Experimental Neurology
1995	Professor and Head of Developmental Physiology Group, Institute of Neurophysiology, Charité
1990	Head of BMBF-funded research group at the Max Planck Institute for Psychiatry, in Munich-Martinsried
1989	Privatdozent at the Technical University, Munich
1984	Research associate at CNRS, Paris
1980	Dr. sc. med., University of Leipzig
1969 - 1984	Assistant Professor, Carl Ludwig Institute for Physiology, University of Leipzig
1966 - 1969	PhD thesis (Dir. H. Drischel), Carl Ludwig Institute for Physiology, University of Leipzig
1960 - 1966	Studies in Medicine, Leningrad Medical University, I.P. Pavlov

Research fields

At present our lab is active in the field of neurodegenerative diseases and their cellular and molecular basis focusing on the following topics:

- Role of astrocytes in the regulation of transmitter release
- Functional maturation and plasticity of GABAergic synaptic transmission
- Glutamate-GABA balance in health and disease
- Cellular basis of Huntington's disease
- Electrical stimulation effects in the basal ganglia (DBS)

Activities in the scientific community, honors, awards

2011	CHDI Foundation Research Grant
2011	ZEN-Award of Hertie Foundation
2009	CHDI Foundation Research Grant (jointly with Donald S. Faber, Albert Einstein College, NY)
2009	Initiation of Hertie-funded NWG project "German Neuroscientists" (with H. Kettenmann)
2007	Teaching Award, Graduate Program Medical Neurosciences, Charité
2000 / 2001	Visiting Fellow Award, John Curtin School of Experimental Medicine, Canberra, Australia, for studies in the John C. Eccles Lab
1996 - 1999	Initiation and "Sprecher", DFG-Schwerpunkt "Transgenic animal models in Neurosciences" (with A. Konnerth and C.M. Becker)
1992	Editor, "Practical Electrophysiological Methods: A Guide for In Vitro Studies in Vertebrate Neurobiology"

1980	Visiting Professor, Department of Physiology & Neuroscience (Dir. R. Llinás), New York University Medical Center
1978 - 1980	Council Member, Physiological Society, German Democratic Republic

Selected publications

Dvorzhak A, Vagner T, Kirmse K, Grantyn R. Functional Indicators of Glutamate Transport in Single Striatal Astrocytes and the Influence of Kir4.1 in Normal and Huntington Mice. J Neurosci. 2016;36(18):4959-75.

Rothe T, Deliano M, Wojtowicz AM, Dvorzhak A, Harnack D, Paul S, Vagner T, Melnick I, Stark H, Grantyn R. Pathological gamma oscillations, impaired dopamine release, synapse loss and reduced dynamic range of unitary glutamatergic synaptic transmission in the striatum of hypokinetic Q175 Huntington mice. Neuroscience. 2015;311:519-38.

Wojtowicz AM, Dvorzhak A, Semtner M, Grantyn R. Reduced tonic inhibition in striatal output neurons from Huntington mice due to loss of astrocytic GABA release through GAT-3. Front Neural Circuits. 2013;7:188.

Dvorzhak A, Semtner M, Faber DS, Grantyn R. Tonic mGluR5/CB1-dependent suppression of inhibition as a pathophysiological hallmark in the striatum of mice carrying a mutant form of huntingtin. J Physiol. 2013;591(4):1145-66.

Dvorzhak A, Gertler C, Harnack D, Grantyn R. High frequency stimulation of the subthalamic nucleus leads to presynaptic GABA(B)-dependent depression of subthalamo-nigral afferents. PLoS One. 2013;8(12):e82191.

Grantyn R, Henneberger C, Juttner R, Meier JC, Kirischuk S. Functional hallmarks of GABAergic synapse maturation and the diverse roles of neurotrophins. Front Cell Neurosci. 2011;5:13.

Holtje M, Djalali S, Hofmann F, Munster-Wandowski A, Hendrix S, Boato F, Dreger SC, Grosse G, Henneberger C, Grantyn R, Just I, Ahnert-Hilger G. A 29-amino acid fragment of Clostridium botulinum C3 protein enhances neuronal outgrowth, connectivity, and reinnervation. FASEB J. 2009;23(4):1115-26.

Kirmse K, Dvorzhak A, Kirischuk S, Grantyn R. GABA transporter 1 tunes GABAergic synaptic transmission at output neurons of the mouse neostriatum. J Physiol-London. 2008;586(23):5665-78.