

## Rosemarie Grantyn

Charité - Universitätsmedizin Berlin  
Department of Experimental Neurology  
Robert-Koch-Platz 4 | D-10115 Berlin  
Phone: +49 (0)30 450-528101  
E-mail: rosemarie.grantyn@charite.de



### 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, Grantyn R (2016) Functional indicators of glutamate transport in single striatal astrocytes and the influence of Kir4.1 in normal and Huntington mice. *J Neurosci* 16: 4959-4975.

Rothe T, Deliano M, Wojtowicz AM, Dvorzhak A, Harnack D, Paul S, Vagner T, Melnick I, Stark H, Grantyn R (2015) 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. *Neurosci* 311: 519-538.

Dvorzhak A, Semtner M, Faber DS, Grantyn R (2013) Tonic mGluR5/CB1-dependent suppression of inhibition as a pathophysiological hallmark in the striatum of mice carrying a mutant form of huntingtin. *J Physiol* 591: 1145-1166.

Wojtowicz AM, Dvorzhak A, Semtner M, Grantyn R (2013) Reduced tonic inhibition in striatal output neurons from Huntington mice due to loss of astrocytic GABA release through GAT-3. *Front Neural Circuits* 7: 188-199.

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

Grantyn R, Henneberger C, Juettner R, Meier JC, Kirischuk S (2011) Functional hallmarks of GABAergic synapse maturation and the diverse roles of neurotrophins. *Front Cell Neurosci* 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 (2009) A 29-amino acid fragment of Clostridium botulinum C3 protein enhances neuronal outgrowth, connectivity, and reinnervation. *FASEB J* 23: 1115-1126.

Kirmse K, Kirischuk S, Grantyn R (2008) Activity of the GABA transporter 1 regulates GABAergic synaptic transmission in striatal projection neurons. *J Physiol* 586: 5665-5678.