

## Andrea Kühn

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### Curriculum vitae

Since 2016	Full professor (W3), head of Movement Disorders and Neuromodulation Unit, Department of Neurology, Charité, Berlin
Since 2015	Member, board of directors, NeuroCure – Cluster of Excellence, Berlin
Since 2012	Associate professor (W2), Movement Disorders, Department of Neurology, Charité, Berlin
Since 2012	Head, Movement Disorder Section, Department of Neurology, Charité, Berlin
Since 2010	Consultant, Department of Neurology, Charité, Berlin
Since 2007	Research group leader, Motor Neuroscience Group, Department of Neurology, Charité, Berlin
Since 2007	Assistant professor, Movement Disorders, Department of Neurology, Charité, Berlin
2006	Neurology board exam (Facharzt)
2002 – 2007	Research fellow, Sobell Department of Motor Neuroscience and Movement Disorders, University College London, UK
1998 – 2002	Resident, Department of Neurology, Charité, Berlin
1998	Doctoral degree (MD), Charité, Berlin, Humboldt-Universität zu Berlin

### Research fields

Our research program focuses on:

- Pathophysiology of movement disorders (Parkinson's disease, dystonia)
- Action mechanism of deep brain stimulation (invasive recording from the human basal ganglia and use of deep brain stimulation as a lesion model)
- Clinical studies: deep brain stimulation for movement disorders
- Functional role of neuronal oscillatory activity of the human basal ganglia
- Invasive recordings from human basal ganglia: multiunit activity and local field potentials, EEG, and transcranial magnetic stimulation

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

2017	Dingebauer Award, German Neurological Society (DGN)
2015	Richard Jung Award, Deutsche Gesellschaft für Klinische Neurophysiologie
Since 2014	Principal investigator, German Center for Neurodegenerative Diseases (DZNE), Berlin
Since 2011	Faculty member, Berlin School of Mind and Brain
2008	Organizer, International Mini-Basal Ganglia Symposia (London-Oxford-Berlin), Charité, Berlin
2004 – 2006	Rahel-Hirsch-Habilitationsstipendium, Career Advance Grant, Charité, Berlin
2002 – 2004	Postdoctoral fellow scholarship, German Academic Exchange Service (DAAD)

## Selected publications

- Lofredi, R., G. C. Auernig, F. Irmen, J. Nieweler, W. J. Neumann, A. Horn, G. H. Schneider, and A. A. Kuhn. 2021. 'Subthalamic stimulation impairs stopping of ongoing movements', *Brain*, 144: 44-52.
- Irmen, F., A. Horn, P. Mosley, A. Perry, J. N. Petry-Schmelzer, H. S. Dafsari, M. Barbe, V. Visser-Vandewalle, G. H. Schneider, N. Li, D. Kubler, G. Wenzel, and A. A. Kuhn. 2020. 'Left Prefrontal Connectivity Links Subthalamic Stimulation with Depressive Symptoms', *Ann Neurol*, 87: 962-75.
- Horn, A., G. Wenzel, F. Irmen, J. Huebl, N. Li, W. J. Neumann, P. Krause, G. Bohner, M. Scheel, and A. A. Kuhn. 2019. 'Deep brain stimulation induced normalization of the human functional connectome in Parkinson's disease', *Brain*, 142: 3129-43.
- Al-Fatly, B., S. Ewert, D. Kubler, D. Kroneberg, A. Horn, and A. A. Kuhn. 2019. 'Connectivity profile of thalamic deep brain stimulation to effectively treat essential tremor', *Brain*, 142: 3086-98.
- Neumann, W. J., A. Horn, S. Ewert, J. Huebl, C. Brucke, C. Slentz, G. H. Schneider, and A. A. Kuhn. 2017. 'A localized pallidal physiome marker in cervical dystonia', *Ann Neurol*.
- Accolla, E. A., M. Herrojo Ruiz, A. Horn, G. H. Schneider, T. Schmitz-Hubsch, B. Draganski, and A. A. Kuhn. 2016. 'Brain networks modulated by subthalamic nucleus deep brain stimulation', *Brain*, 139: 2503-15.
- Horn, A., and A. A. Kuhn. 2015. 'Lead-DBS: a toolbox for deep brain stimulation electrode localizations and visualizations', *Neuroimage*, 107: 127-35.
- Barow, E., W. J. Neumann, C. Brucke, J. Huebl, A. Horn, P. Brown, J. K. Krauss, G. H. Schneider, and A. A. Kuhn. 2014. 'Deep brain stimulation suppresses pallidal low frequency activity in patients with phasic dystonic movements', *Brain*, 137: 3012-24.
- Herrojo Ruiz, M., M. Rusconi, C. Brucke, J. D. Haynes, T. Schonecker, and A. A. Kuhn. 2014. 'Encoding of sequence boundaries in the subthalamic nucleus of patients with Parkinson's disease', *Brain*, 137: 2715-30.
- Neumann, W. J., J. Huebl, C. Brucke, L. Gabriels, M. Bajbouj, A. Merkl, G. H. Schneider, B. Nuttin, P. Brown, and A. A. Kuhn. 2014. 'Different patterns of local field potentials from limbic DBS targets in patients with major depressive and obsessive compulsive disorder', *Mol Psychiatry*, 19: 1186-92.