Tuesday, November 29, 2016

Session 5 ***DBS Innovations***

16.10–16.45	**Models to program DBS** *C. McIntrye*
16.45–17.10	**Electrode localization and first experience with LEAD-DBS programming** *A. Horn*
17.10–17.35	**Directional DBS: clinical experience** *L. Timmermann*
17.35–17.50	Break
17.50–18.25	**Adaptive DBS in tremor and Parkison's disease** *P. Brown*
18.25–18.50	**Direct visualization of DBS targets using 7T MRI** *N. Harel*
18.50–19.00	Session wrap-up, Discussion
19.00	End of symposium

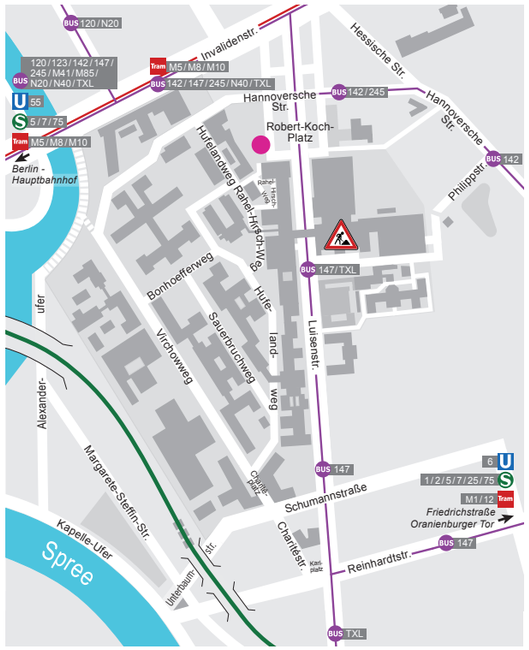
Supported by DFG Deutsche Forschungsgemeinschaft Medtronic

15.000,- €

How to get there:

Charité – Universitätsmedizin Berlin
Campus Charité Mitte | Charitéplatz 1 | 10117 Berlin

● Kaiserin Friedrich-Haus | Robert-Koch-Platz 7 | 10115 Berlin



Public transport:

Bus	Robert-Koch-Platz	142, 245
	Invalidenpark	142, 147, 245, TXL
	Berlin Hauptbahnhof	120, 123, 142, 147, 245, M41, M85, N20, N40 TXL
U-Bahn	Naturkundemuseum	U6
S-Bahn	Friedrichstraße	S1, S2, S5, S7, S25, S75
	Berlin Hauptbahnhof	S5, S7, S75

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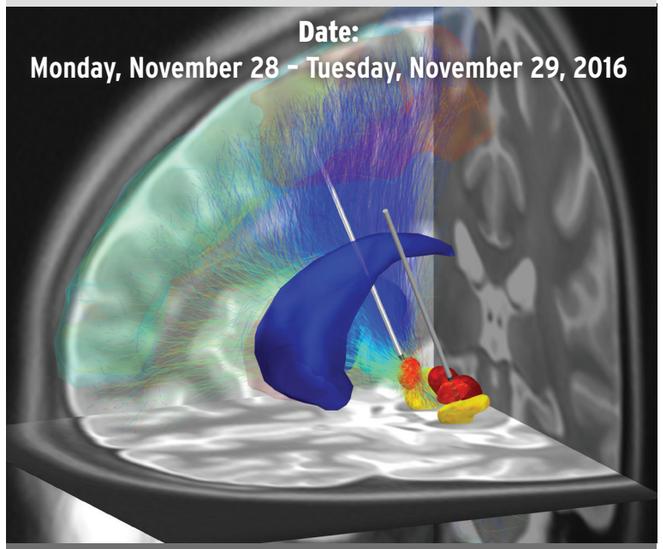
CHARITÉ
UNIVERSITÄTSMEDIZIN BERLIN

Movement Disorders and Neuromodulation Unit
Department of Neurology

Scientific Program

International DBS Symposium
Clinical Research Group KFO 247



Location:
Kaiserin Friedrich-Haus | Robert-Koch-Platz 7 | 10115 Berlin

http://www.kfo247.de

Charité – Universitätsmedizin Berlin

Dear colleagues and friends,

It is our great pleasure to invite you to the International Symposium on Deep Brain Stimulation hosted by the Clinical Research Group „Deep Brain Stimulation" on November 28-29, 2016 in Berlin. Our clinical research group was the first collaborative research effort on DBS mechanisms in Germany funded by the German Research Council (DFG) for 6 years fostering successful interdisciplinary research and the foundation of the Movement Disorder and Neuromodulation Unit at the Charité. We would like to mark this event with an international symposium focussed on the main aspects of DBS from animal work and computational models to human neurophysiology and recent technical DBS innovations. The two-day symposium will present the scientific results of our research group that was supported by the German Research Foundation grant KFO247. Moreover, talks and discussions with international key-note speakers and experts of the field will address current hot topics in DBS research directed at the basal ganglia circuitries, network effects of DBS, animal models and potential biomarkers in movement disorders as well as recent innovations in technology and methodology. To promote young researchers we will select short oral communications and poster presentations of innovative projects from submitted abstracts. The symposium strives to trigger off future collaborative research efforts by providing a platform for intense discussion between basic neuroscientists and clinicians in the field of DBS. It will be followed by the jointly organized first DBS expert summit in Würzburg, Bavaria from November 30-December 2, 2016 where the future of DBS shall be discussed in broader terms among leading international expert teams.

We cordially invite you to Berlin and hope that you will enjoy your stay in the vibrant capital of Germany, a metropolis for art and lifestyle, history and business. We look forward to an inspiring scientific event, sharing new research data and discussing new ideas for joint future projects on DBS.

Cordially,

Andrea Kühn, MD
Head of Clinical Research Group and Movement Disorder and Neuromodulation Unit

Matthias Endres, MD
Speaker of Clinical Research Group Director of Dept. of Neurology

Monday, November 28, 2016

13.00–13:20 Opening

Opening Lecture

13.20–13.55 **The future of DBS - New treatment strategies or better targets for DBS?**
A. Lozano

Session 1 – Parallel basal ganglia motor, cognitive and limbic circuits

14.05–14.30 **Basal ganglia loops – segregation or overlap?**
B. Draganski

14.30–14.50 **How the STN-GPe loop may include prior knowledge during the exploration in re-learning**
F.H. Hamker

14.50–15.10 **Basal ganglia-cerebellar interactions**
A. Quartarone

15.10–15.20 Abstract presentation 1

15.20–15.30 Abstract presentation 2

15.30–15.40 Session wrap-up, Discussion

15.40–16.00 Coffee Break

Session 2 – Local and distant effects of DBS on network function

16.00–16.35 **Network effects of DBS assessed by MEG**
V. Litvak

16.35–17.00 **Can we improve speech by STN DBS?**
S. Pinto

17.00–17.20 **Effects of thalamic and basal ganglia DBS on language-related functions – Conceptual and clinical considerations**
F. Klostermann

17.20–17.30 Session wrap-up, Discussion

17.30–17.45 Break

17.45–18.10 **Mechanisms of tremor reduction and ataxia in thalamic DBS**
J. Volkmann

18.10–18.30 **The role of the STN in adaptive motor control**
W.-J. Neumann

18.30–18.40 Abstract presentation 3

18.40–18.50 Session wrap-up, Discussion

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Session 3 – Animal models – Basal ganglia physiology

09.00–09.35 **Neuronal signature in progressive models of Parkinson's disease – are oscillations enough?**
J. L. Vitek

09.35–09.55 **Oscillation models in vitro**
J. Geiger

09.55–10.15 **Temporal development of oscillations in experimental Parkinsonism**
C. van Riesen

10.15–10.25 Session wrap-up, Discussion

10.25–10.40 Break

10.40–11.15 **Neurobiological and neurophysiological correlates of mental disorders**
A. Grace

11.15–11.40 **Behavioral and neurophysiological characterization of the DAT model**
C. Winter

11.40–11.50 Abstract presentation 4

11.50–12.00 Abstract presentation 5

12.00–12.10 Session wrap-up, Discussion

12.10–13.10 Poster Session

13.10–14.00 Lunch

Session 4 – Biomarker in movement disorders

14.00–14.35 **EEG biomarker integration for accurate decision making in clinical research**
K. Linkenkaer-Hansen

14.35–14.55 **Cortico-subcortical interactions and metastable neural dynamics in Parkinson's Disease**
V. Nikulin

14.55–15.15 **Are LFP useful chronic bio-markers for motor behaviour?**
A. Kühn

15.15–15.40 **The role of high frequency oscillations in movement disorders**
A. Schnitzler

15.40–15.50 Session wrap-up, Discussion

15.50–16.10 Coffee break