

Dynamical Neuroscience XIX

Deep Brain Stimulation in Mental Illness, Neurological Disorders and Cognitive Impairment

Thursday, November 10, 2011

8:00 Registration, Continental Breakfast

9:00 Opening Remarks and Welcome
Thomas R. Insel, Director, NIMH

Mechanisms and Theory

9:15 *Fast Scan Cyclic Voltammetry Recordings in Animal Models and in Human Patients to Elucidate Mechanisms of DBS*
Kendall H. Lee, Mayo Clinic

10:00 *Parkinsonian Basal Ganglia Activity Patterns: A Computational View of Downstream Implications*
Jonathan E. Rubin, University of Pittsburgh

10:45 *Characterizing Neuropsychiatric Deep Brain Stimulation with Computational Models*
Cameron C. McIntyre, Cleveland Clinic Foundation

11:30 Poster session and lunch on your own

Neuropsychiatric Disorders

2:00 *DBS for Depression: Mapping Critical Circuits Toward Treatment Optimization*
Helen S. Mayberg, Emory University School of Medicine

2:45 *DBS or Ablation for OCD: Effects and Neurocircuitry*
Benjamin D. Greenberg, Brown University — Butler Hospital

3:30 Coffee Break

3:45 *'Not So Deep' Brain Stimulation: Non-Surgical Alternatives for Treatment Resistant Depression (TRD)*
Sarah H. Lisanby, Duke University School of Medicine

Keynote Address

4:30 Recipient of the 4th Annual
Swartz Prize in Computational Neuroscience

5:30 Reception - Sponsored by The Swartz Foundation

Poster room will be available until 9 p.m.

Friday, November 11, 2011

8:00 Registration, Continental Breakfast

9:00 Meeting Announcements

Movement Disorders

9:15 *The Effect of Deep Brain Stimulation on Abnormal Neural Oscillations and Hypersynchrony in Parkinson's Disease and Dystonia*
Helen M. Bronte-Stewart, Stanford University School of Medicine

10:00 *DBS for Dystonia: Symptomatic Treatment or Disease Modification?*
Michele Tagliati, Cedars-Sinai Medical Center

10:45 Coffee Break

11:00 *Acute Effects of Basal Ganglia Stimulation on the Primary Motor Cortex*
Philip A. Starr, UCSF School of Medicine

11:45 *Exploring Mechanisms of DBS with Optogenetics*
Jaimie M. Henderson, Stanford University School of Medicine

12:30 Poster session and lunch on your own

Future Directions

2:00 *The NeuroPace RNS® System: Responsive Cortical Stimulation for Epilepsy*
Martha J. Morrell, Stanford University, and NeuroPace

2:45 *Central Thalamic Deep Brain Stimulation for Modulation of Arousal Regulation in Non-Progressive Brain Injuries: Moving Toward Generalizability Through Conceptual Analysis and Empirical Data*
Nicholas D. Schiff, Weill Cornell Medical College

3:30 *Neuroethics, Regulation and the Mosaic Deep Brain Stimulator*
Joseph J. Fins, Weill Cornell Medical College

4:15 Wrap-up and comments
Main Meeting Adjourns

Poster room will be available until 7 p.m.