Thursday May 7, 2015

11:00 Welcome

12:00 Opening remarks
Henri Bounameaux, Dean of Medical Faculty
Bertrand Levrat, Director of University Hospital

Followed by refreshments

Session 1: Optogenetic characterization of disease relevant brain circuits

13:30 – 14:00 Anatol Kreitzer Insights into basal ganglia function from optogenetics
14:00 – 14:30 Rui Costa Shaping actions with basal ganglia circuits
14:30 – 15:00 Susanne Ahmari Understanding the OCD brain: using new technologies to build bridges between humans and mice

15:00 – 15:40 Coffee break

15:40 – 16:00 Oded Klavir Controlling fear associations through optogenetic modulation of amygdala to prefrontal connectivity

16:00 – 16:20 Arto Nurmikko Optoelectronic Toolkit for DBS

16:20 – 16:50 Cheng Xiao Tonic activity of pedunculopontine cholinergic neurons governs locomotion and reward

16:50 – 17:20 Christian Lüscher An optogenetic model of addiction

17:20 – 17:50 Paul Krack From neurological to psychiatric disorders

Friday May 8, 2015

08:15 – 08:40 Welcome Café & Croissant

Session 2: Basic mechanisms

08:40 – 09:00 André Zacharia Effect of STN-DBS frequency on cortical excitability and motor performance in Parkinson’s disease

09:00 – 09:30 Suzanne Haber Neuroanatomy of deep brain structure

09:30 – 10:00 Ann Graybiel Selective effects of optogenetic manipulation of the medial prefrontal cortex

10:00 – 10:30 Cameron McIntyre Biophysics of optogenetic and electrical stimulation

10:30 – 11:00 Coffee break

11:00 – 11:20 Damien Benis Electrophysiological correlates of emotional prosody recognition in the nucleus accumbens of patients with depression

11:20 – 11:50 Lydia Kerkerian Neuroadaptive changes under prolonged subthalamic nucleus DBS
11:50 – 12:20 Abdelhamid Benazzouz
Effects of DBS on the basal ganglia function

12:20 – 12:50 Hagai Bergman
Closed loop DBS

12:50 – 14:00 Lunch

Session 3: Neuromodulation in non-motor disease

14:00 – 16:30 Posters session and visit of the Campus Biotech / Wyss Institute

16:30 – 16:50 Sina Kohl
Effects of DBS on prepulse inhibition in obsessive compulsive disorder

16:50 – 17:10 Alister Rogers
Deep brain stimulation of the internal pallidum for patients with Huntington disease

17:10 – 17:40 Damiaan Denys
DBS in OCD

17:40 – 18:10 Christelle Baunez
DBS and optogenetic manipulation of STN on motivational processes and addiction

18:10 – 18:40 Meaghan Creed
Optogenetically inspired DBS for addiction

18:40 – 19:10 Jens Kuhn
First clinical results of DBS of the Nucleus accumbens in severe addiction

20:30 Geneva Boat
“Buvette du Bateau” - Get together

Saturday May 9, 2015

08:00 – 08:20 Welcome Café & Croissant

Session 4: Neuromodulation in motor disorders

08:20 – 08:40 Huiling Tan
Physiological functions of beta oscillations in cortico-basal ganglia network in motor error evaluation

08:40 – 09:00 Daniel Côté
Optimal illumination and collection with microoptical fiber-based devices

09:00 – 09:30 Peter Brown
Closed loop stimulation in patients

09:30 – 10:00 Claudio Pollo
Directional DBS improves therapeutic window: from computer model to human application

10:00 – 10:30 Maria Fiorella Contarino
Directional stimulation: recording possibilities and clinical implications

10:30 – 11:00 Coffee break

11:00 – 11:20 Léonie Asboth
Uncovering and enhancing cortical contribution to motor recovery after spinal cord injury

11:20 – 11:50 Helen Bronte-Stewart
Electrical recordings under DBS

11:50 – 12:20 Pierre Pollak
The many ways to stimulate deeply in the brain: lessons from the PPN

12:20 – 13:00 Farewell apéro