

“OptoDBS 2017” Meeting

Geneva June 22-24th, 2017

Thursday June 22, 2017

11 :00	Welcome - light lunch and refreshments	
12 :00	Opening remarks by Christian Lüscher	
12 :10 Plenary	Karl Deisseroth Discussion leader	“Illuminating next-generation brain therapies” Christian Lüscher

Session 1 : Optogenetic interrogation of BG circuits

Discussion leaders: José Obeso and Jens Kuhn

13 :00 – 13 :30	Rui Costa	“Closed-loop paradigms to investigate action learning and control”
13 :30 – 14 :00	Patricia Janak	“Stimulus triggers for action: Defining contributions of parallel dopamine-striatal circuits in reward”
14 :00 – 14 :30	Ilana Witten	“Insight into optoDBS mechanisms from observing neural dynamics”
14 :30 – 16 :00	<i>Coffee break and poster session</i>	
16 :00 – 16 :20	Anna Beyeler	“Anatomical and functional diversity in the amygdala”
16 :20 – 16 :40	Anna Tchenio	“Limiting habenular hyperactivity ameliorates maternal deprivation-driven depressive-like symptoms »
16 :40 – 17 :10	Aryn Gittis	“Cell-specific pallidal intervention induces long-lasting motor rescue in dopamine depleted mice”
17 :10 – 17 :40	Mark Bevan	“Plasticity of the subthalamic nucleus in Parkinson’s disease”

Speakers dinner

Friday June 23, 2017

Session 2 : Mechanism of DBS/Closed loop systems

Discussion leaders: Paul Krack and Mark Hallett

08 :30 – 09 :00	Andrea Kühn	“Pathological network activity in PD and dystonia”
09 :00 – 09 :30	Hagai Bergman	“Subthalamic synchronized beta oscillations - Don't throw the baby out with the bathwater”

09 :30 – 10 :00	Viviana Gradinaru	“Dorsal Raphe Dopamine Neurons Modulate Arousal and Promote Wakefulness Upon Salient Stimuli”
10 :00 – 10 :30	Coralie De Hemptinne	“Use of electrocorticography to develop closed-loop DBS in Parkinson's disease”
10 :30 – 11 :00	<i>Coffee break</i>	
11 :00 – 11 :30	Christelle Baunez	“Effects of DBS and optogenetic manipulations of STN on addiction criteria in the rat »
11 :30 – 12 :00	Peter Brown	“Circuit dynamics and DBS”
12 :00 – 12 :30	Yann-Suhan Senova	“Assessment of the translational potential of for functional neurosurgery”
12 :30 – 13 :00	Jones Parker	“Probing the Neural Ensemble Signatures of Therapeutic Efficacy in Parkinson's Disease”
13 :00 – 14 :30	<i>Lunch and poster session</i>	

Session 3 : Circuit models of Addiction, OCD, Depression

Discussion leaders: Luc Mallet and Abdelhamid Benazzouz

14:30 – 15 :00	Nicole Calakos	“Striatal Circuit Function in Habit and Compulsion”
15 :00 – 15 :30	Damiaan Denys	“LFP recording in obsessive compulsive disorder with DBS electrodes”
15 :30 – 16 :00	Vikaas Sohal	“Prefrontal gamma oscillations and cognitive flexibility”
16 :00 – 16 :30	<i>Coffee break</i>	
16 :30 – 16 :50	Eric Yttri	“Closed-loop photostimulation reveals bidirectional kinetic control in the basal ganglia »
16 :50 – 17 :10	Chen-Cheng Zhang	“Frontiers of Neuromodulation in China: Addiction, Anorexia Nervosa, Obsessive-Compulsive Disorder and Parkinson's Disease »
17 :10 – 17 :40	Josh Gordon	“Adventures in terminal manipulation: do dynamics matter?”
17 :40 – 18 :10	Clement Hamani	“DBS for depression: Translational aspects and future perspectives”
21 :30	<i>OptoDBS after dinner party at the Brasserie des Halles de l'Ile</i>	

Saturday June 24, 2017

Session 4 : Techniques & Translation

Discussion leaders: John Donoghue and Helen Bronte-Stewart

08 :40 – 09 :00	Jonathan Schor	“Towards a Mouse Model for Investigating STN DBS”
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09 :00 – 09 :30	Polina Anikeeva	“Optoelectronic probing of neural circuits with multifunctional fibers”
09 :30 – 10 :00	Jerry Vitek	“Deep Brain Stimulation Effects on the Basal Ganglia Thalamo-Cortical Circuit”
10 :00 – 10 :30	Meaghan Creed	“Targeting synaptic plasticity in the reward system to treat addiction-relevant behavior”
10 :30 – 11 :00	<i>Coffee break</i>	
11 :00 – 11 :30	Michael Bruchas	“Modern Approaches for Dissecting Neuromodulatory Circuits in Affective Behaviors”
11 :30 Plenary	Andreas Lozano Discussion leader	“Behavioral and biological effects of deep brain stimulation.” Paul Krack
12 :20	<i>Farewell apéro</i>	