

'Subcortico-cortical loops in sensory processing and perception'

Location: Berlin, Charité Campus Mitte, Großer Hörsaal Hautklinik, Rahel-Hirsch-Weg 4

Monday, 16 March 2020

09:00 Opening Remarks

09:20 Max Happel *Leibniz Institute for Neurobiology, Magdeburg, Germany*
'Recurrent corticothalamic feedback in the auditory system:
perceptual salience and dopaminergic modulation'

10:00 Patrik Krieger *Dept. Medicine, Ruhr-University, Bochum, Germany*

10:40 Huizhong Tao *Keck School of medicine, USC, Los Angeles, USA*
'Modulation of Visual Cortical Processing by a Higher-Order Thalamic Nucleus'

11:20 Break

11:50 Markus Rothermel *Dept. Chemosensation, RWTH Aachen University, Germany*
'Influence of cortical and neuromodulatory loops on sensory information processing
and perception in the mouse olfactory system'

12:30 Mathieu Wolff *Aquitaine Inst. for Cognitive and Integrative Neurosc., Bordeaux Univ., France*
'Thalamocortical circuits from neuroanatomy to cognitive processes'

13:10 Lunch

15:00 Marcel Oberlaender *Research Center caesar, Bonn, Germany*
'Top-down modulation of cortical output is gated by the thalamus'

15:40 Victoria Bajo *Department of Physiology, Anatomy and Genetics, University of Oxford, UK*
'Targeting Neural Plasticity by Optogenetic Silencing in the Auditory Cortex'

16:20 Alexander Groh *Institute of Physiology and Pathophysiology, Heidelberg University, Germany*

17:00 Break

17:30 Dan Polley *Eaton-Peabody Laboratories, Harvard Medical School, Boston, USA*
'New insights into organizing principles of the ascending and descending auditory pathways'

18:10 Alain Destexhe *ICN Integrative & Computational Neuroscience, CNRS, Paris, France*

18:50 Dinner/Discussion

Tuesday, 17 March 2020

09:00 Sonja Hofer *Sainsbury Wellcome Centre, University College London, UK*
'Higher-order thalamocortical interactions during visual processing'

09:40 Ehud Ahissar *Department of Neurobiology, Weizmann Institute of Science, Rehovot, Israel*

'Coordination of thalamo-cortical loops and global motor-sensory-motor loops in perception'

10:20 Laura Busse *Division of Neurobiology, Ludwig-Maximilians-Universität München, Germany*
'Effects of Corticothalamic Feedback on Geniculate Responses to Naturalistic and Artificial Visual Stimuli'

11:00 *Break*

11:30 Emmanuelle Court *Lyon Neuroscience Research Center, CNRS, Lyon, France*
'Thalamic contribution to olfactory processing'

12:10 Anita Luthi *Dept. of Fundamental Neurosciences, University of Lausanne, Switzerland*
'A thalamic reticular circuit for head direction cell tuning and spatial navigation'

12:50 Fleur Zeldenrust *Donders Inst. for Brain, Cog. & Behav., Radboud Univ., Nijmegen, Netherlands*
'Information transfer in (barrel) cortex: from single cell to network'

13:30 *Lunch*

15:30 Livia de Hoz *Neuroscience Research Center, Charité - Medical University, Berlin, Germany*

16:10 James Poulet *Max-Delbrück-Center of Molecular Medicine, Berlin, Germany*
'Neural circuits of thermal perception'

16:50 Wolfgang Kelsch *Central Institute of Mental Health, Mannheim, Germany*
'Cortical top-down control of social olfactory encoding'

17:30 *Break*

18:00 Alexander Heimel *Netherlands Institute for Neuroscience, Amsterdam, the Netherlands*

18:40 Tatyana Sharpee *Salk Institute for Biological Studies, La Jolla, USA*

19:20 *Dinner/Discussion*

Wednesday, 18 March 2020

09:00 Ziad Hafed *Werner Reichardt Centre for Integrative Neuroscience, Tübingen, Germany*

09:40 Ann Marie Oswald *Department of Neuroscience, University of Pittsburgh, USA*

10:20 Julio Hechavarria *Inst. for Cell Biology and Neuroscience, Goethe Univ., Frankfurt, Germany*
'Neural correlates of vocal control in the fronto-striatal network'

11:00 *Break*

11:30 Jens Kremkow *Neuroscience Research Center, Charité-Universitätsmedizin Berlin, Germany*

12:00 Rebecca Mease *Inst. für Physiologie und Pathophys., Med. Fakultät Heidelberg, Germany*

'Multiplexed coding in the higher-order thalamus'

12:30 Valery Grinevich *Zentralinstitut für Seelische Gesundheit, University of Heidelberg, Germany*
'Sensory modalities driving social behavior via the central oxytocin system'

13:00 Torfi Sigurdsson *Institute of Neurophysiology, Goethe University, Frankfurt am Main, Germany*
'Prefrontal-subcortical interactions during memory-guided navigation'

13:30 Closing remarks, farewell and lunch

15:30 round table discussion for loops network members

17:30 Conference closure