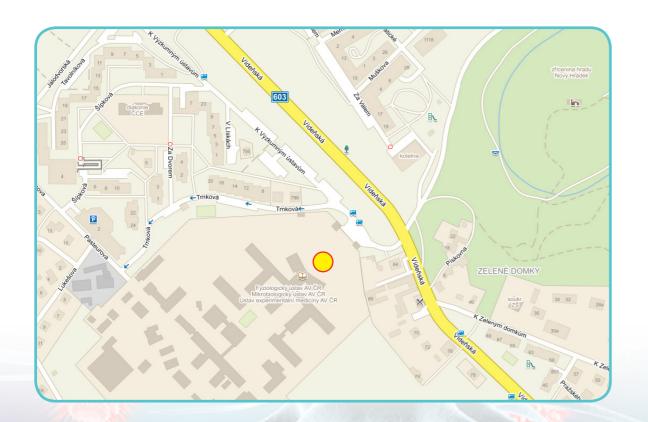
More information Contact and registration: No registration fee Free attendance For special requests contact Ales Stuchlik, ales.stuchlik@fgu.cas.cz Address: Institute of Physiology (Lecture hall, building A) Vídeňská 1083, Prague 4

Car: Parking is available on campus.

Public transport: bus 193, stop: Zelené domky



Neuropsychiatric Disorders

- From Basic Systems to Clinical Applications:

Czech and Slovak Neuroscience Alumni Workshop

> 24th and 25th June 2016 Institute of Physiology CAS, Prague

Organizers:

Tomáš Hromádka (Slovak Academy of Sciences, Axon Neuroscience, Bratislava, SK) Aleš Stuchlík (Institute of Physiology, Czech Academy of Sciences, Prague, CZ)













24th June

9:00 Conference start, welcoming remarks - Aleš Stuchlík 9:05

Czech and Slovak Neuroscience: An overview – Josef Syka

Plenary 1 9:10 - 10:10

Eva Paštalková (Janelia Research Campus, USA)

• The role of oscillations in neuronal sequential firing and memory

10:10 Coffee break

10:30 - 12:30 **Symposium 1**

Chairman: David Hansel

Hynek Wichterle (Columbia University)

 Decoding and debugging motor neurons: modeling neural development and disease with pluripotent stem cells

Robert Guetig (Max Planck Institute for Experimental Medicine, Goettingen, Germany)

Spiking neurons can discover predictive features by aggregate-label learning

David Hansel (CNRS & Hebrew University)

Theory of orientation selectivity without map

Andrej Kráľ (Hannover, Germany)

 Bottom-up and Top-down Integration and Sensory Deprivation: The Decoupling Theory

12:30 Lunch

13:30 – 15:30 **Symposium 2**

Chairman: Tomáš Hromádka

Ondřej Novák (Institute of Experimental Medicine, Czech Academy of Sciences, Prague, CZ)

Associative plasticity and adaptive population coding in the auditory cortex

Martin Zápotocký (Institute of Physiology, Czech Academy of Sciences, Prague, CZ)

The dynamics of axon bundling and its biophysical mechanisms

Jan Kubánek (Stanford University)

• Ultrasonic neuromodulation as a new non-invasive way to stimulate specific regions of the brain

Ľubica Beňušková (Comenius University, Bratislava, SK)

• The age-related posterior-anterior shift as revealed by voxelwise analysis of functional brain networks

15:30 Coffee break

15:45 - 17:45 **Symposium 3**

Chairman: Eva Paštalková

Peter Jedlička (Johann Wolfgang Goethe-University, Frankfurt)

 Computational modeling of homeostatic synaptic and dendritic plasticity in the hippocampus

Peter Hubka (Hannover, Germany)

• Cortical connectivity without experience: an auditory system perspective

Jan Bím (Italian Institute of Technology, Italy)

What do neurons communicate to each other?

Tomáš Hromádka (Slovak Academy of Sciences, Axon Neuroscience, Bratislava, SK)

• From molecules to cognition - Systems neuroscience in Alzheimer's disease

17:45 Transfer to Campfire

18:00 Party at the Campfire

25th June

10:00 - 11:00 Plenary 2

Pavel Osten (CSHL, USA)

• The unknown unknowns of the mammalian brain: unbiased screening of neural function and anatomy

11:00 Coffee break

11:25 - 13:25 Symposium 4

Chairman: Aleš Stuchlík

Petr Telenský (Faculty of Sciences, Charles University Prague, CZ)

 Repeated binge-like eating of an energy dense diet alters responsiveness to stress in mice.

Karel Ježek (Medical Faculty Pilsen, Charles University, CZ)

Memory circuits and their temporal dynamics

Eduard Kelemen (National Institute of Mental Health, Klecany, CZ)

 Organization of hippocampal representations (memories) in wakefulness and sleep

Karel Blahna (Institute of Science and Technology, Vienna, Austria)

• Hunting the remote memory: Dynamics of the goal-specific neurons in the prefrontal cortex and hippocampus

13:25 **Closing remarks**

Informal get-together with attendees and students and lunch in the lobby 13:35 of Institute of Physiology CAS