

PROGRAM

January 17 – Thursday

08.30 – 09.30 Registration

09.45 – 10.00 Opening ceremony

10.00 – 10.45 **Plenary lecture I.** (Buzsáki Lecture)
The agony of choice
Alex Pouget (*University of Geneva, Geneva, CH*)

10.45 – 11.00 Break

11.00 – 12.45 **Symposium I.**
Astrocytic regulation of neuronal functions
Organizer: Balázs Pál
(*University of Debrecen, Debrecen, Hungary*)

The functional consequences of tripartite synapses on cortical circuits

Gertrudis Perea

Neuron-glia Networks Lab, Functional and Systems

Neurobiology Department, Cajal Institute, Madrid, Spain

Do astrocytes conduct the neuronal symphony?

László Héja

Hungarian Academy of Sciences, Research Centre for Natural Sciences, Functional Pharmacology Research Group, Budapest, Hungary

The contribution of astrocytes to the recovery from spreading depolarization

Ákos Menyhárt, Eszter Farkas

University of Szeged, Faculty of Medicine, Faculty of Science and Informatics, Department of Medical Physics and Informatics, Szeged, Hungary

Astrocyte-dependent changes of neuronal excitability in cellular mechanisms of sleep homeostasis

Balázs Pál

University of Debrecen, Faculty of Medicine, Department of Physiology, Debrecen, Hungary

12.45 – 15.45 **Poster session I. & Lunch**

14.30 – 15.30 **Bio-Science WORKSHOP**

15.45 – 16.30 **Plenary lecture II.**

Contribution of an individual synapse on a dendritic spine to electrical signaling in a single neuron - a voltage imaging study

Dejan Zecevic (Yale University, New Haven, USA)

16.30 – 17.00 Coffee break

17.00 – 18.45 **Symposium II.**

A dishful of a troubled mind: pluripotent stem cell models in neurological and psychiatric research

Organizers: András Lakatos (*University of Cambridge, Cambridge, UK*) and János Réthelyi (*Semmelweis University, Budapest, Hungary*)

Glia-neuron communication in health and its disruption in human stem cell-derived 2D/3D neurodegenerative disease platforms

András Lakatos

University of Cambridge, Cambridge, UK

Transplantation of human brain organoids in the mouse brain as an in vivo model of neuronal differentiation

Tiago Goncalves

Albert Einstein College of Medicine, Bronx, New York, USA

Direct reprogramming to study healthy and pathological aging and bipolar affective disorder

Jerome Mertens

University of Innsbruck, Innsbruck, Austria

Can we get closer to schizophrenia by means of in vitro disease modelling?

János Réthelyi

Semmelweis University, Budapest, Hungary

19.00 – 19.45 General Assembly of the Hungarian Neuroscience Society

20.00 Gala dinner

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09.30 – 10.15 **Plenary lecture III.**

From patients to basic neurobiology and back

Gaia Novarino (Institute of Science and Technology, Wien, Austria)

10.15 – 10.30 Break

10.30 – 12.15 **Symposium III.**

Degeneration and regeneration in the injured peripheral nerves – new insights into the regeneration of long nerves

Organizer: Antal Nógrádi (*Department of Anatomy, Histology and Embryology, University of Szeged, Szeged, Hungary*)

Molecular mechanism of axon degeneration

Robert Adalbert

John van Geest Brain Repair Centre, Department of Clinical Neuroscience, University of Cambridge, Cambridge, UK and Department of Anatomy, Histology and Embryology, University of Szeged, Szeged, Hungary

Neuromuscular function and synaptic degeneration imaged by confocal endomicroscopy

Richard Ribchester

Euan MacDonald Centre for MND Research and Centre for Discovery Brain Sciences, Biomedical Sciences, University of Edinburgh, Edinburgh, UK

Equine recurrent laryngeal neuropathy – a highly prevalent disease of domestication?

Richard Piercy

The Royal Veterinary College, Hatfield, United Kingdom

Fostering regeneration in the injured peripheral nerve: Is mechanotransduction the key solution?

Antal Nógrádi

Department of Anatomy, Histology and Embryology, University of Szeged, Szeged, Hungary

12.15 – 15.15 **Poster session II. & Lunch**

15.15 – 16.00 **Plenary lecture IV.**

BETA: Biological and Experience-based Trajectories in Adolescent brain development

Ilona Kovács (Hungarian Academy of Sciences – Pázmány Péter Catholic University, Adolescent Development Research Group, Budapest, Hungary)

16.00 – 16.30 **Coffee break**

16.30 – 18.15 **Symposium IV.**

Stress adaptation and maladaptation: the hotbed of health and disease

Organizer: Dóra Zelena (Institute of Experimental Medicine, Hungarian Academy of Sciences, Budapest, Hungary)

Regulation and dysregulation of the hypothalamic-pituitary-adrenocortical axis: the importance of stress-coping strategies

Antonio Armario García

Head of the Neurobiology of stress and addiction laboratory, Animal Physiology Unit, School of Biosciences, Universitat Autònoma de Barcelona, Barcelona, Spain

The significance of early life factors in the development of disorders

Balázs Gaszner

*Department of Anatomy, Medical School, University of Pécs,
Pécs, Hungary*

Stress, sleep and depression - new factors in an old circuit

Zsuzsanna Várnainé Tóth

*Department of Anatomy, Histology and Embryology,
Semmelweis University, Budapest, Hungary*

Stress adaptation in the brain

Dóra Zelena

*Institute of Experimental Medicine, Hungarian Academy of
Sciences, Faculty of Medicine, Semmelweis University, Budapest,
Hungary*