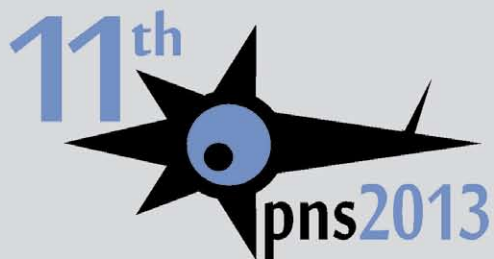


11th
**INTERNATIONAL
CONGRESS
OF THE POLISH
NEUROSCIENCE SOCIETY**

Poznań, Poland, September 15-17

www.ptbun.org.pl



Organizer: Polish Neuroscience Society (PNS)

Co-organizers: Department of Neurobiology, University School of Physical Education in Poznań
 Committee of Neurobiology of Polish Academy of Sciences
 Committee of Rehabilitation, Physical Education and Social Integration of Polish Academy of Sciences
 Faculty of Physical Education, Sport and Rehabilitation, University School of Physical Education in Poznań
 Faculty of Animal Breeding and Biology, Poznań University of Life Sciences
 Poznań University of Medical Sciences
 Adam Mickiewicz University in Poznań
 International Institute of Molecular and Cell Biology, Warszawa
 Nencki Institute of Experimental Biology, PAS, Warszawa
 Institute of Pharmacology, PAS, Kraków
 Mossakowski Medical Research Centre, PAS, Warszawa

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**SAMORZĄD WOJEWÓDZTWA
WIELKOPOLSKIEGO**

11TH INTERNATIONAL CONGRESS OF THE POLISH NEUROSCIENCE SOCIETY

PROGRAMME

Sunday, September 15th

12:00 PM – 06:00 PM	Registration
02:00 PM – 04:00 PM	General Assembly of the Polish Neuroscience Society
04:30 PM – 05:00 PM	Opening ceremony
05:00 PM – 06:45 PM	Opening lectures Bogdan Dreher (University of Sydney, Australia) Primary visual cortex – receptive field properties and feedforward and feedback inputs Introduced by: Wioletta Waleszczyk Robert F. Schmidt (University of Würzburg, Germany) From nociceptor to chronic pain Introduced by: Maciej Pawlak
06:45 PM – 09:00 PM	Welcome reception

Monday, September 16th, 2013

(Morning sessions)

08:15 AM – 08:45 AM	Konorski Award presentation Marcin P. Mycko, Maria Cichalewska, Agnieszka Machlańska, Hanna Ćwiklińska, Magdalena Mariasiewicz, Krzysztof W. Selmaj microRNA-301a regulation of a T-helper 17 immune response controls autoimmune demyelination Introduced by: Jolanta Zawilska
08:45 AM – 09:30 AM	Plenary lecture Marc D. Binder (University of Washington, Seattle, USA) The role of voltage-gated calcium channels in regulating the excitability and discharge behavior of motoneurons Introduced by: Jan Celichowski
09:30 AM – 10:00 AM	Coffee break
10:00 AM – 10:45 AM	Special lectures Caroline Blanchard (University of Hawaii at Manoa, USA) Autism and the SVZ: A site for mechanism? Introduced by: Ksenia Meyza Erik De Schutter (Okinawa Institute of Science and Technology, Japan) Data sharing and data publication Introduced by: Daniel Wójcik
11:00 AM – 01:00 PM	SYMPOSIA S1. Neurophysiological and molecular mechanisms of pain Chairperson: Joanna Mika (Kraków, Poland) Hans-Georg Schaible (Jena, Germany) The bidirectional joint – brain connection: Pain mechanisms and neuronal control of inflammation Katarzyna Starowicz (Kraków, Poland) Novel pharmacotherapy of osteoarthritis: TRPV1 and CB1 receptors as targets for pharmacological intervention

Joanna Mika (Kraków, Poland)

Spinal microglia activation – importance for chronic pain

Karl Messlinger (Erlangen, Germany)

Neurobiological mechanisms in migraine

Maciej Pawlak (Poznań, Poland)

Aspects of pain in sport and physiotherapy

S2. Synaptic plasticity and neuronal environment

Chairperson: Jerzy Mozrzymas (Wrocław, Poland)

Enrico Tongiorgi (Trieste, Italy)

BDNF proteolytic products: Diversity of effects on cellular plasticity

Leonard Khiroug (Helsinki, Finland)

Activity-dependent motility of perisynaptic astrocytic processes: Links to functional synaptic plasticity

Leszek Kaczmarek (Warszawa, Poland)

MMP-9, an extracellular protease in control of synaptic plasticity

Jerzy Mozrzymas (Wrocław, Poland)

Impact of metalloproteases on synaptic and E-S plasticity in the hippocampal mossy fiber-CA3 and AC pathways

S3. Across experimental and clinical neurophysiology

Chairperson: Juliusz Huber (Poznań, Poland)

Barbara Emeryk-Szajewska (Warszawa, Poland)

Electrophysiological diagnostics of myasthenia and myasthenic syndromes

Ryszard Kinalski (Białystok, Poland)

Interhemispheric asymmetry of the N20 subcomponent latency: New parameter of median nerve somatosensory evoked potentials in healthy adults

Juliusz Huber (Poznań, Poland)

Application of surface electromyography in diagnostics of muscles motor units dysfunction during overloading and in standing positions

01:00 PM – 02:30 PM

Lunch

Monday, September 16th, 2013

(Afternoon sessions)

02:30 PM – 04:30 PM

SYMPOSIA

S4. Cortico-subcortical interactions in different behavioural states

Chairperson: Andrzej Wróbel (Warszawa, Poland)

Andrzej Wróbel (Warszawa, Poland)

Introduction

Daniel Świąjkowski (Oxford, UK)

Brain state-related activity of septo-hippocampal neuronal network

Björn Granseth (Linköping, Sweden)

Cortico-thalamic modulatory pathway

Wioletta Waleszczyk (Warszawa, Poland)

Cortical determination of temporal structure of spike trains in the cat's lateral geniculate and perigeniculate nuclei

Ewa Kublik (Warszawa, Poland)

State related changes of information flow in thalamo-cortical pathways

S5. Bioactive lipids and mitochondria: Key players in the pathogenesis of Alzheimer's disease (AD)

Chairperson: Joanna B. Strosznajder (Warszawa, Poland)

Kristina Leuner (Erlangen, Germany)

Mitochondrial dysfunction – the missing link between aging and sporadic AD?

Anne Eckert (Basel, Switzerland)

Targeting mitochondria in Alzheimer's disease: Effects of omega 3 fatty acids

Walter Lukiw (New Orleans, USA)

Micro-RNA-125b (miRNA-125b) regulation of 15-lipoxygenase (15-LOX) expression and the generation of NPD1 from DHA: A potential contributor to the pathogenesis of Alzheimer's disease (AD)

Robert P. Strosznajder (Warszawa, Poland)

Ceramide/sphingosine-1-phosphate in cells survival and death: Implication in Alzheimer's disease

S6. Neurobiology of invertebrates

Chairperson: Joanna Śliwowska (Poznań, Poland)

Nathan Tublitz (Eugene, USA)

Neural control of body patterning in cephalopods: From behavior to genomics

Elżbieta Pyza (Kraków, Poland)

The role of BRP protein in synaptic plasticity in the visual system of *Drosophila*

Dick Nässel (Stockholm, Sweden)

Neurotransmitters and other factors regulating insulin producing cells in the *Drosophila* brain

Christian Wegener (Würzburg, Germany)

Biology of neuropeptide processing and production in the fruitfly *Drosophila*

Bruno Lapied (Angers, France)

Regulatory mechanisms of *Periplaneta americana* nervous system functions

Coffee break

04:30 PM – 05:00 PM

05:00 PM – 05:15 PM

Young Investigator Award presentation

Paulina Kaźmierska (Łódź, Poland)

5-HT_{1A} receptors are involved in the development of theta oscillations in hippocampal formation *in vitro*

Introduced by: Małgorzata Skup

05:15 PM – 06:00 PM

Plenary lecture

Laszlo Acsady (Hungarian Academy of Sciences, Budapest, Hungary)

Building blocks of the thalamus

Introduced by: Andrzej Wróbel

06:00 PM – 08:00 PM

POSTER SESSION I

Tuesday, September 17th, 2013

(Morning sessions)

09:00 AM – 09:15 AM

Young Investigator Award presentation

Magdalena Smyk (Kraków, Poland)

Old rhythm, new methodology: Differential temporal organization of sleep-wake states in the light and dark phase

Introduced by: Małgorzata Skup

09:15 AM – 10:00 AM

Plenary lecture

Giacomo Rizzolatti (University of Parma, Parma, Italy)

The mirror neuron system

Introduced by: Grzegorz Króliczak

10:00 AM – 10:30 AM

Coffee break

10:30 AM – 12:30 PM

SYMPOSIA

S7. Higher order motor control and recovery of functions

Chairperson: Ferdinand Binkofski (Aachen, Germany)

Ferdinand Binkofski (Aachen, Germany)

Action observation as a tool for neurorehabilitation of motor deficits following stroke

Giovanni Buccino (Catanzaro, Italy)

The mirror system in humans, motor learning and recovery of function

Leonardo Fogassi (Parma, Italy)

Encoding motor intention in monkey parietal and premotor cortex

Grzegorz Króliczak (Poznań, Poland)

Task-dependent dissociations between transitive and intransitive gesture representations:

The prospects of recovery following right vs. left hemisphere lesions

S8. Neurobiology of autism

Chairperson: Ewelina Knapska (Warszawa, Poland)

Alena Savonenko (Baltimore, USA)

Mutations of Shank3 in autism and mouse models

Markus Wöhr (Marburg, Germany)

Autism as a synaptopathy: Behavioral studies in genetic mouse models

Ksenia Meyza (Warszawa, Poland)

Extracellular matrix alterations in BTBR mouse model of autism

Tomasz Schneider (Oxford, UK)

Animal model of autism induced by prenatal exposure to valproic acid: Translational validity

Lunch

12:30 PM – 02:00 PM

Tuesday, September 17th, 2013

(Afternoon sessions)

02:00 PM – 04:00 PM

SYMPOSIA

S9. RNA binding proteins, microRNAs and local protein synthesis in nervous system function

Chairperson: Jacek Jaworski (Warszawa, Poland)

Gary Bassell (Atlanta, USA)

Dynamic regulation of mRNA translation in neurons by FMRP and microRNAs

Clive Bramham (Bergen, Norway)

Persistent TrkB signaling to MNK activates a two-stage translational switch underlying *in vivo* LTP maintenance

Gerhard Schratt (Marburg, Germany)

microRNA function in synapse development and plasticity

Jacek Jaworski (Warszawa, Poland)

Ribonucleoparticles in dendritic arbor development

S10. Recovery of the brain function after stroke

Chairperson: Wioletta Waleszczyk (Warszawa, Poland)

Turgut Tatlisumak (Helsinki, Finland)

Visual field defects in patients with ischemic stroke: Characteristics, consequences, and acute management

Carolin Gall (Magdeburg, Germany)

Non-invasive brain stimulation in vision impairment after stroke: The REVIS network

Monika Liguz-Leczna (Warszawa, Poland)

Attenuation of inflammatory response after stroke allows to retain brain plasticity

Paolo M. Rossini (Roma, Italy)

Neurophysiological techniques testing brain connectivity

S11. A CARE lecture

Krzysztof Turlejski (Warszawa, Poland)

Ethical and legal aspects of experimenting on animals

04:00 PM – 04:30 PM

Coffee break

04:30 PM – 04:45 PM

Young Investigator Award presentation

Patrycja Orłowska (Kraków, Poland)

Melanopsin modulation of slow oscillatory activity in the subcortical visual system

Introduced by: Małgorzata Skup

04:45 PM – 05:30 PM

Plenary lecture

Bernhard Sabel (Otto-v.-Guericke Universität Magdeburg, Germany)

Vision restoration after brain and retina damage: The “residual vision activation” theory

Introduced by: Wioletta Waleszczyk

05:30 PM – 05:45 PM

Closing Ceremony

05:45 PM – 07:45 PM

POSTER SESSION II

08:30 PM – 12:00 AM

Gala dinner