



Neurochemical Conference 2015

Neuropsychimmunological mechanisms in the pathology of neurodegenerative diseases. From biomarkers to therapeutics.

October 22-23, 2015

Mossakowski Medical Research Centre Polish Academy of Sciences
Warsaw, Poland



Thursday, October 22, 2015

9.00 - 9.05 **Opening ceremony**

9.05 - 9.45 **Opening Lecture**

Paweł Grieb (Poland) *Tissue stress phenomena in the brain in the context of mechanism of neurological diseases and therapeutic neuroprotection*

9.45 - 10.30 **Plenary Lecture**

TBC. *M1 muscarinic agonists and a novel and highly potent activator of the M1R/sigma-1R complex: Future therapeutics of Alzheimer's (AD) and Parkinson's Disease (PD)*

10.30 - 10.45 **Coffee break**

10.45 - 12.50 **Session 1: Novel insights in Parkinson's disease – targets for neuroprotection**

Chairpersons: Krystyna Ossowska and Anna R. Carta

10.45 - 11.10 Joanna Motyl (Poland) *Sphingolipid signalling in experimental model of Parkinson's disease*

11.10 - 11.35 Grzegorz Kreiner (Poland) *Noradrenergic signaling in Parkinson's disease*

11.35 - 12.00 Klemencja Berghauzen-Maciejewska (Poland) *A search for mechanisms of Parkinson's disease (PD)-associated depression in an animal model*

12.00 - 12.25 Anna R. Carta (Italy) *PPAR-gamma: therapeutic prospects in Parkinson's disease*

12.25 - 12.50 Carsten Culmsee (Germany) *Regulated cell death pathways converging at mitochondria are promising therapeutic targets for neuroprotection*

12.50 - 14.00 **Lunch**

14.00 - 14.30 **Poster session – part I**

14.30 - 16.10 **Session 2: Recent advancements and future perspectives in neurodegeneration and neuroregeneration**

Chairpersons: Barbara Zabłocka and Nadežda Lukáčová

14.30 - 14.55 Joanna Klimaszewska-Łata (Poland) *Differential susceptibility of microglial cells and cholinergic neurons to neurodegenerative signals*

14.55 - 15.20 Małgorzata Beręsewicz (Poland) *PKCβII in mitochondria as a potential neuroprotective factor. Proteomics strategy to elucidate protein-protein interactions involved in PKCβII signaling*

15.20 - 15.45 Joanna Sypecka (Poland) *Neuroprotective and immunomodulatory properties of oligodendrocyte progenitors as a tool for neuroregenerative strategies*

15.45 - 16.10 Nadežda Lukáčová (Slovakia) *Therapeutic relevance of local hypothermia after spinal cord compression: A characterization of neurofilaments in white matter pathology*

16.10 - 16.40 **Coffee and posters – part II**

Friday, October 23, 2015

9.00 - 10.30 Session 3: Emerging signalling pathways in Alzheimer's disease – part I

Chairpersons: Joanna B. Strosznajder and Anne Eckert

9.00 - 9.30 Andrzej Szutowicz (Poland) *Cholinergic hypothesis of dementia*

9.30 - 10.00 Grażyna Niewiadomska (Poland) *Dangerous Liaisons: tau interaction with muscarinic receptors*

10.00 - 10.30 Grzegorz A. Czapski (Poland) *Cyclin-dependent kinase 5 signalling in neuroinflammation and neurodegeneration*

10.30 - 11.00 Coffee break

11.00 - 12.30 Session 3: Emerging signalling pathways in Alzheimer's disease – part II

Chairpersons: Joanna B. Strosznajder and Anne Eckert

11.00 – 11.30 Anne Eckert (Switzerland) *Neurosteroids and Alzheimer's disease. Mitochondria at the interface*

11.30 - 12.00 Walter Lukiw (USA) *Pathogenic microRNA (miRNA) signaling in Alzheimer's disease (AD) and age-related macular degeneration (AMD) target common genetic pathways leading to amyloidogenesis and inflammatory neurodegeneration*

12.00 – 12.30 Grace Sun (USA) *Insights for botanical polyphenols to target signaling pathways and regulate microglial activation*

12.30 – 13.30 Lunch

13.30 - 14.00 Poster session - part I

14.00 - 16.00 Session 4: Synaptic biology: New targets for therapy in Autism Spectrum Disorders

Chairpersons: Agata Adamczyk and David Beversdorf

14.00 - 14.30 David Beversdorf (USA) *Effects and mechanisms of prenatal stress on neuro-development: applications to autism*

14.30 - 15.00 Agata Adamczyk (Poland) *Synaptic Shank proteins alterations in rat offspring following maternal immune activation: implications for autism spectrum disorders*

15.00 - 15.30 Ksenia Meyza (Poland) *Synaptic plasticity impairments in a BTBR T⁺lpr3^{tf}/J mouse model of idiopathic autism*

15.30 - 16.00 Anna Wilkaniec (Poland) *α -Synuclein and its role in synaptic function*

16.00 - 16.30 Coffee and posters - part II

16.30 Closing ceremony