



SCIENTIFIC PROGRAMME

11:30–13:10

Room Pacific

SY35 SATELLITE SYMPOSIUM OF NEUROTOXICITY SOCIETY

New potential therapeutic targets in case of neurodegenerative disorders and age-related degenerative processes

Organizers: Andrea Tamas (Pécs, Hungary) and Maria Trinidad Herrero (Murcia, Spain)

1. Erika Pintér (Pécs, Hungary): Critical role of TRPA1 receptor in the mouse basal fore-brain cholinergic neurons *in vivo*
2. María-Trinidad Herrero (Murcia, Spain): Gut inflammation exacerbates dopaminergic degeneration and perpetuates neuroinflammation
3. Andrea Tamas (Pécs, Hungary): Examination of PACAP in blood samples of patients with Parkinson's disease
4. Sheela Vyas (Paris, France): Cell and context specific actions of glucocorticoids in Parkinson's disease pathology

11:30–13:10

Room Atlantic 1

SY36

Transcriptional mechanisms: from neural fate decisions to circuit assembly

Organizers: Nissim Ben-Arie (Jerusalem, Israel) and Panagiotis Politis (Athens, Greece)

1. Panagiotis Politis (Athens, Greece): The role of long non-coding RNAs in mammalian brain development
2. Stavros Taraviras (Patras, Greece): Geminin superfamily members are critical switch for adult NSC and ependymal cell specification
3. Nissim Ben-Arie (Jerusalem, Israel): Ventral spinal cord development: from transcriptional regulation to patterning to behaviour
4. Avihu Klar (Jerusalem, Israel): Deciphering spinal neuronal circuit for refined locomotion and wing flapping in chick: genetic targeting, functional organization and behavioural analysis

Wednesday, July 10, 2019

Thursday, July 11, 2019

Friday, July 12, 2019

Saturday, July 13, 2019

EXAMINATION OF PACAP IN BLOOD SAMPLES OF PATIENTS WITH PARKINSON'S DISEASE

Andrea Tamas^a, Beata Polgar^b, Zalan Szanto^c, Adel Jungling^a, Norbert Kovacs^d, Istvan Balas^e, Endre Pal^d, Daniel Pham^a, **Tunde Toth^a, Balazs Fazekas^a, Balazs Daniel Fulop^a, Attila Gyenesei^f, Dora Reglodi^a**

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In the last few years numerous studies examined the presence and the changes of PACAP level in different human samples to show alterations in various physiological and pathological conditions. A recent study showed that plasma PACAP concentrations were significantly higher after acute spontaneous basal ganglia hemorrhage than in healthy controls. We have also found correlation between mortality and PACAP levels in severe traumatic brain injury. Han and coworkers demonstrated that PACAP levels were reduced in several brain areas and in postmortem CSF of Alzheimer's disease patients.

The aim of the present study was to examine the PACAP in blood samples of patients with Parkinson's disease (PD) without treatment, with different levodopa treatment from different stages of PD based on Hoehn-Yahr scale and after deep brain stimulation. Sandwich-type ELISA (Mybiosource) was used to measure the PACAP38 level of plasma samples.

Our preliminary results showed elevated PACAP38 levels in numerous plasma samples from patients with PD after deep brain stimulation. These results are similar to earlier experiments where elevated PACAP levels were found after basal ganglia and subarachnoid hemorrhage, after traumatic brain injury, in migraine and posttraumatic stress disorder. The neuroprotective and cytoprotective effect of PACAP is well known, therefore, the role of elevated endogenous PACAP level in these acute severe conditions could provide its protective function to restore the physiological conditions. Our further aim is to increase the number of examined patients to identify the prognostic and/or diagnostic biomarker value of PACAP-38 in case of Parkinson's disease.