

❖ 8ª Reunião da Sociedade Portuguesa de Neurociências

12-13 de Junho, 2003

Local: Grande Hotel da Curia

Comissão Científica:

- Edgar F. da Cruz e Silva
- Alexandre de Mendonça
- Alexandre Ribeiro
- Ana Sebastião
- Arsélio Pato de Carvalho
- Caetana M. Carvalho
- Catarina Resende de Oliveira
- Deolinda Lima
- João José Malva
- José M. Castro Lopes
- Manuel Paula Barbosa
- Maria João Saraiva
- Odete A. B. da Cruz e Silva

Comissão Organizadora:

- Odete A. B. da Cruz e Silva
- Maria Elena Crespo López
- Sandra Vieira Guerra e Paz
- Ana Gabriela Henriques

Programa:

11th June

18:00 - 20:00 - Registration

12th June

8:30 - 9:00 - Registration

9:00 - 9:15 - Opening Session

Chairperson: E. F. da Cruz e Silva

9:15 - 10:15 - 1st Plenary Lecture

Sex Hormones Protect the Brain

Luis M. Garcia-Segura

10:15 - 10:45 - Coffee break

10:45 - 12:30 - **1st Symposium: Neuronal Signalling**

Chairpersons: A. Sebastião and C. Carvalho

Conference

Moving receptors in and out of synapses: a mechanism for synaptic plasticity in the brain

Gerges, N. et al.

Oral Communications

- *Effects of hypoxia on calcium signaling in presynaptic terminals of rat hippocampal slices*
Coelho, J. E. et al.
- *Synaptic interplay with motoneuronal adenosine A2A receptors favours M2-autoinhibition by braking counteraction mediated by facilitatory muscarinic M1 receptors*
Oliveira, L. et al.
- *Metabotropic dopamine and glutamate receptors regulate AMPA receptor activity through PKA: effect on GLUR4 phosphorylation and surface expression*
Gomes, A. R. et al.
- *Proteolytic events in the neurotoxicity induced by AMPA receptor activation*
Araújo, I. M. et al.

12:30 - 14:00 - Lunch

14:00 - 15:30 - 2nd Symposium: Neuronal Networks and Plasticity

Chairpersons: D. Lima and J. O. Malva

Conference

Neural networks in pain control: plasticity in the integration of nociceptive and cardiovascular signals

Tavares, I.

Oral Communications

- *Brainstem expression of c-fos by mobilization of a chronically inflamed paw*
Pinto, M. et al.
- *Nociception and chronic stress: the role of corticosteroid receptors*
Pinto-Ribeiro, F. et al.
- *Decrease in latency time response of hyperexcited spinal dorsal horn neurons induced by intrathecal administration of strychnine*
Cardoso-Cruz, H. et al.
- *VIP increases GABAergic transmission to both interneurons and pyramidal cells in the CA1 area of the hippocampus*
Cunha-Reis, D. et al.

15:30 - 16:00 - Coffee break

16:00 - 17:30 - Poster Session (Symposia 1 and 2)

Symposium 1

- *AMPA receptor subunits interact with ubiquitinated protein(s)*
Andrade, N. et al.
- *Identification of pre- and postsynaptic AMPA and kainite receptor subunits in the rat hippocampus*
Pinheiro, P. S. et al.

- *Different receptors mediate the inhibitory action of exogenous adenosine and facilitation resulting from the nucleoside generated endogenously in the rat myenteric plexus*
Araújo, M. et al.
- *Different sub-synaptic distribution of adenosine receptors in CNS synapses*
Rebola, N. et al.
- *Voltage-sensitive calcium channels operate nicotinic-induced ⁴⁵Ca uptake by rat brain synaptosomes independently on action potential generation*
Costa, J. et al.
- *Ionic basis of excitability in tonically firing spinal dorsal horn neurons in rat*
Melnick, I. et al.
- *Correlation between effect of opioids and functional properties of spinal substantia gelatinosa neurons of rat*
Santos, S. et al.
- *On the inhibitory effect of brain-derived neurotrophic factor (BDNF) on [³H]GABA release from rat hippocampal synaptosomes*
Pereira, I. T. et al.
- *Endogenous GABA inhibits adenosine A1 mediated action in the hippocampus*
Fragata, I. R. et al.
- *Modulation of [³H]acetylcholine release in Ca3 area of the hippocampus by A1 receptors is regulated by adenosine transporters*
Pinto Duarte, A. et al.
- *Blockade of muscarinic M1 autoreceptors reduce transmitter release without producing titanic fade at the rat neuromuscular junction*
Faria, M. et al.

- *Sub-cellular synaptic distribution of NPY Y2 and Y5 receptor subtypes and NPY levels in rat hippocampal subregions*
Xapelli, S. et al.
- *Modulation of glutamate release by neuropeptide Y receptors activation in hippocampal nerve terminals of control and epileptic rats*
Silva, A. et al.
- *Modulation of glutamate release by ATP in the rat hippocampus*
Rodrigues, R. J. et al.
- *Detection and modulation of nitric oxide in rat hippocampus using modified microelectrodes*
Frade, J. G. et al.
- *Electrochemical measurement of nitric oxide production in rat hippocampal brain slices*
Ledo, A. et al.
- *Evidence for a P2X receptor on pancreatic cells*
Silva, A. M. et al.
- *The role of γ^{687} in APP trafficking and processing*
Rebelo, S. et al.
- *Tauroursodeoxycholic acid prevents E2F-1 activation, Bax up-regulation and apoptosis evoked by amyloid β -peptide in PC12 cells*
Solá, S. et al.

Symposium 2

- *Differential expression of NK1-receptors in nociceptive spinal neurons of normal and monoarthritic rats*
Castro, A. R. et al.
- *Migration of HSV-1 vector from the caudal ventrolateral*
Martins, I. et al.

17:30 - 18:30 - **Special Session**

Young Lectures

Chairperson: C. Oliveira

- *Prospects of antiapoptosis drug therapy for neurological disorders*
Rodrigues, C. et al.
- *Adenosine triggers an excitatory action of brain-derived neurotrophic factor on hippocampal synaptic transmission*
Diógenes, M. J. et al.
- *Extracellular signal-regulated kinases 1 and 2 (ERKs 1,2) activity in the spinal cord under chronic bladder inflammation*
Cruz, C. et al.
- *Excitotoxic pathways coupled to GluR4-containing AMPA receptors activate the AP-1 transcription factor*
Santos, A. E. et al.

18:30 - 19:30 - SPN General Assembly

20:00 - Dinner

13Th June

9:15 - 10:15 - 2nd Plenary Lecture

Biophysical Approaches to Amyloid Characterization

Gennaro Esposito

10:15 - 10:45 - Coffee break

10:45 - 12:30 - **3Rd Symposium: Genes and Neurons**

Chairpersons: J. M. Castro Lopes and O. A. B. da Cruz e Silva

Conference

Modulating gene activity

Mallo, M.

Oral Communications

- *The role of the transcription factor DRG11 in the development of the nociceptive system*
Rebello, S. et al.
- *Brain abnormalities of HSF1 null mouse*
Santos, S. D. et al.
- *Iron and neurodegeneration: study of the ferritin light polypeptide (FTL) gene in Portuguese patients with Huntington-like symptoms*
Pereira, M. C. et al.
- *Differential gene expression in familial amyloid polyneuropathy: implications in pathogenesis*
Sousa, M. M. et al.

12:30 - 14:00 - Lunch

14:00 - 15:30 - **4th Symposium: Neurobiology of Disease**

Chairpersons: A. de Mendonça and M. J. Saraiva

Conference

Contribution of calcineurin and Akt/PKB to neurodegeneration induced by prion and beta-amyloid peptide

Agostinho, P. et al.

Oral Communications

- *Presynaptic adenosine A_{2A} receptors facilitate the evoked release of glutamate in the rat striatum*
Alfaro, T. et al.
- *Memory and metamemory: from the young to the aged*
Mendes, T. et al.
- *Alzheimer's amyloid precursor protein phosphorylation: driving it through traffic?*
Guerra e Paz, S. V. et al.

- *The endogenous TRPV1 ligand, anandamide, increases in the inflamed rat urinary bladder*
Avelino, A. et al.

15:30 - 16:00 - Coffee break

16:00 - 17:30 - Poster Session (Symposia 3 and 4)

Symposium 3

- *Expression of ataxin-3 in the CNS of wild-type mice*
Costa, M. C. et al.
- *Catechol-O-methyltransferase gene and Alzheimer's disease*
Grazina, M. et al.
- *GDNF expression in the nigrostriatal system: effect of damage to dopaminergic neurons*
Saavedra, A. et al.

Symposium 4

- *Glutamate-excitotoxicity in cultured hippocampal neurons: effect on glutamatergic and GABAergic markers*
Armelão, M. G. et al.
- *Novel mGlu1 receptor antagonists are potent antinociceptive agents in animal models involving sensitization of nociception and hyperalgesia: a comparison with reference mGlu1/5 antagonists and morphine*
Caldeira, M. V. et al.
- *Effect of intracellular cAMP in the uptake of lithium by neuronal cells*
Montezinho, L. P. et al.
- *Neuroprotection by adenosine receptors in rat cortical neurons*
Rebola, N. et al.

- *Up-regulation of adenosine A2A receptor in stimulated microglia cells*
Canas, P. et al.
- *Adenosine A2A receptor antagonists prevent beta-amyloid-induced apoptosis in rat cortical neurons*
Candeias, R. et al.
- *Hyperglycemia causes neurodegeneration in rat retinal neurons: involvement of glutamate*
Santiago, R. et al.
- *Mitochondrial dysfunction and caspases activation in the neurotoxicity of heroin, amphetamine and cocaine in cortical cultures*
Oliveira, T. et al.
- *Protein phosphatase 1: a candidate molecular marker for cellular stress*
Amador, F. C. et al.
- *Protein phosphatase 2B and kinases activated by Trk receptors regulate apoptosis induced by 3-nitropropionic acid in cortical cultures*
Almeida, S. et al.
- *Bax, Bcl2 and Fas expression in peripheral blood cells from patients with neurodegenerative disorders*
Laranjeira, P. et al.
- *Neuroprotection of insulin against oxidative stress in cultured cortical neurons - changes in glutathione redox cycle*
Duarte, A. I. et al.
- *Role of the endoplasmic reticulum in the neurotoxic effect induced by the prion peptide*
Ferreiro, E. et al.
- *APP processing pathways can be differentially affected*
Henriques, A. G. et al.

- *4'-iodo-4'-deoxydoxorubicin and tetracyclines disrupt transthyretin amyloid fibrils in vitro producing non- cytotoxic species. Screening for ttr fibril disrupters*
Cardoso, I. et al.
- *Neuroprotection by tauroursodeoxycholic acid in acute hemorrhagic stroke*
Castro, R. E. et al.
- *Effects of IL-10 on bilirubin-induced toxicity in cultured astrocytes*
Silva, R. F. M. et al.
- *Neuronal-like and non-neuronal cell lines respond differently to staurosporine treatment*
Amorim, M. et al.
- *Beta-amyloid toxicity and NMDA receptor subunit expression in neuronal and non-neuronal cell culture models*
Domingues, A. et al.
- *Cortical neuron apoptosis induced by tumor necrosis factor α (TNF- α), staurosporine, thapsigargin and beta-amyloid peptide 1-40 ($A\beta$ 1-40)*
Resende, R. et al.
- *Is the antiestrogen drug tamoxifen a neuroprotective agent?*
Moreira, P. I. et al.

18:00 - 19:00 - 3Rd Plenary Conference

Genetic Dissection of Dementias

John Hardy

19:00 - Closing Session