❖ 5º Reunião da Sociedade Portuguesa de Neurociências

15-17 de Dezembro, 1998

Local: Hotel Estoril-Sol, Cascais

Comissão Científica:

- Fernando Lopes da Silva
- Joaquim Alexandre Ribeiro
- Alexandre Castro Caldas
- João Lobo Antunes
- Eduardo Ducla Soares
- Arsélio Pato de Carvalho
- Catarina Resende Oliveira
- Luís Martinho do Rosário
- Deolinda Lima
- Manuel Paula Barbosa

Comissão Organizadora:

- Ana M. Sebastião
- Rodrigo A. Cunha
- Alexandre de Mendonça

Programa:

Tuesday, 15

18:00 - Registration

18:40 – 19:00 - Opening Session

19:00 – 19:45 - Opening Conference

Chairperson: *João Lobo Antunes*

Origem das neurociências em Portugal

Francisco Pinto

20:00 – 21:30 - Welcome dinner

22:00 – 22:45 - Chamber choir of the University of Lisbon

Wednesday, 16

Session I – Excitotoxicity, Hypoxia and Stroke

Chairpersons: *José Ferro, Catarina Oliveira*

9:00 – 10:00 - Plenary Lecture

Excitotoxicity studied in organotypic brain slice cultures

Jens Zimmer

10:00 – 10:45 – Oral Communications

10:00 - *Metabotropic glutamate receptors mRNA expression is regulated in monoarthritic rats*

F. L. Neto*, J. Schadrack, A. Berthele, W. Zieglgansberger, T. R. Tölle, J. M. Castro-Lopes*

10:15 - *Contribution of muscarinic-Ach and metabotropic glutamate receptors to the depression of synaptic transmission induced by hypoxia*

J. Coelho*, A. de Mendonça, J. A. Ribeiro*

10:30 - *Angiotensin II effects on noradrenaline release in DPSPX (1,3-dipropyl-8-sulfophenyl-xanthine)-hypertensive rats*

A. Albino-Teixeira*, D. Moura, M. Morato, H. Pinheiro, S. Guimarães*

10:45 – 11:15 - Coffee

11:15 – 11:45 - Young Lecture

New tools for the characterization of presynaptic kainate receptors in hippocampal CA3 neurons

João Malva

11:45 – 13:15 - **Poster Session I**

Excitotoxicity, Hypoxia and Stroke

- *Vinpocetine protects synaptosomes from oxidative stress*
  A. I. Duarte*, P. I. Moreira, M. S. Santos, C. R. Oliveira*

- *Endogenous adenosine is responsible for the depression of synaptic transmission induced by mild hypoxia in hippocampal slices of aged rats*
  ***A. M. Sebastião**, J. A. Ribeiro*

- *Indomethacin decreases NO generation by cultured murine microglial cells in response to amyloid β*
  ***F. Simões do Couto**, M. Castro, M. Castro Caldas, C. Garcia, J. M. Toscano Rico, F. Martins do Vale*

- *A role for NMDA glutamate receptors in the modulation of glutamate release by nitric oxide in rat hippocampal nerve terminals*
  *S. M. Sequeira, A. P. Carvalho, **C. M. Carvalho***

- *The synaptosomal susceptibility to Aβ-induced toxicity is decreased in GK (Goto-Kakizaki) diabetic rats*
  ***Claúdia Pereira**, Paula Moreira, Raquel Seiça, Maria Sancha Santos, Catarina R. Oliveira*

- *Effects of prolonged ethanol consumption on neurons of the rat basal forebrain cholinergic projection system*
  ***A. Cadete-Leite**, F. Brandão, A. Ribeiro-da-Silva, A. C. Cuello*

- *Activation of the stress axis by chronic pain in monoarthritic rats*
  ***B. Pan**, J. M. Castro-Lopes, A. Coimbra*

Synaptic and Neuronal Signalling

- *Kinetics of Ca^{2+} currents in maturing CA 1 neurons*
  ***M. A. Ribeiro**, P. F. Costa*

- *Activation of δ opioid receptors inhibits catecholamine release via voltage-sensitive calcium channels in cultured adrenal chromaffin cells*
  ***Francisco J. Deus**, Angelo R. Tomé*

- *Effect of ageing on A_{2A} adenosine receptor modulation on acetylcholine release in different areas of the rat hippocampus*
  ***Luísa V. Lopes**, Rodrigo A. Cunha, J. A. Ribeiro*

- *Age-dependent modification of adenosine modulation by arachidonic acid in the rat hippocampus*
  ***R. A. Cunha**, J. A. Ribeiro*

- *Spatial distribution of interictal and ictal activity in temporal lobe epilepsy using low resolution tomography*
  ***Alberto Leal**, Teresa Palma*

13:15 – 14:30 - Lunch

Session II – Synaptic and Neuronal Signalling

***Chairpersons:** A. Pato de Carvalho, Pedro Costa*

14:30 – 15:30 - Plenary Lecture

Role of adenosine in the brain

Tom V. Dunwiddie

15:30 – 16:15 - Oral Communications

15:30 - *Role of adenosine in the neuromodulatory action of VIP in the hippocampus*

***D. Cunha Reis**, A. M. Sebastião and J. A. Ribeiro*

15:45 - *Inhibition of nicotine-induced catecholamine release by the opioid antagonist naloxone in adrenal chromaffin cells*

***Angelo R. Tomé**, Victor Izaguirre, Luís M. Rosário, Valentín Ceña*

16:00 - *The voltage dependence of Na^+ channels mean open time in rat CA 1 hippocampal neurons*

***P. F. Costa**, J. Fernandes, J. P. Marvão, A. I. Santos*

16:15 – 16:45 - Coffee

16:45 – 17:15 – Young Lecture

The release of acetylcholine and GABA is differentially regulated in cultured chick retina cells

Paulo F. Santos

17:15 – 18:00 - Oral Communications

17:15 - *A_{2A}-adenosine receptors activation facilitates both P- and L-type calcium influx in motor nerve terminals: putative role in Lambert-Eaton myasthenic syndrome treatment*

***P. Correia-de-Sá**, M. A. Timóteo, J. A. Ribeiro*

17:30 - *Aging does not modify modulation of acetylcholine release by endogenous adenosine through A_1 and A_{2A} receptors at the rat neuromuscular junction*

***M. F. Pereira**, R. A. Cunha, J. A. Ribeiro*

17:45 - *Desensitization of bladder afferents by resiniferatoxin: a new treatment for detrusor hyperreflexia*

***F. Cruz**, C. Silva, M. Guimarães, M. Reis*

18:00 – 19:30 - Society General Meeting

20:00 - Party Dinner

Thursday, 17

Session III – Plasticity, Cognition, Sensory and Autonomic Control

***Chairpersons:** Manuel Paula-Barbosa, Luís Silva-Carvalho*

9:00 – 10:00 - Plenary Lecture

Studying the mammalian CNS in vitro optical tools

Peter Saggau

10:00- 10:45 - Oral Communications

10:00 - *L-AP3 blocks long-term but not short term enhancement of calcium signals from hippocampal CA1 neurons*

***C. M. Matias**, P. Foley, M. E. Quinta-Ferreira*

10:15 - *Effects of endogenous adenosine on short- and long-term phenomena of synaptic plasticity in young and old rats*

***A. R. Costenla**, A. de Mendonça, J. A. Ribeiro*

10:30 - *Long-term potentiation in multiple components of field potentials in the hippocampo-prefrontal pathway of rats*

***N. M. da Costa**, A. Kemp, G. R. J. Christoffersen*

10:45 – 11:15 - Coffee

11:15 – 11:45 - Young Lecture

Involvement of the medullary dorsal reticular nucleus in facilitation of pain perception

Armando Almeida

11:45 – 13:00 - Oral Communications

11:45 - *C-fos activation of lamina I neurons projecting to the caudal ventrolateral medulla is differentially modulated by the target*

***A. R. Cobos**, I. Tavares, A. Almeida, D. Lima*

12:00 - *Adrenalectomy alters the anatomy of the paraventricular nucleus of the rat hypothalamus*

***M. M. Paula-Barbosa**, S. Leal, M. D. Madeira*

12:15 - *Convergence properties of nucleus tractus solitarius neurones and the defence reaction*

L. Silva Carvalho

12:30 - *Is there a mismatch between sender and receiver in the acoustic communication of cicadas?*

*P. J. **Fonseca**, D. Münch, R. M. Hennig*

12:45 - *Proper name anomia: a double dissociation*

*L. Farrajota, G. Leal, P. Canhão, **I. Pavão Martins***

13:00 – 14:15 - Lunch

14:15 – 15:30 - **Poster Session II**

Neuronal Plasticity, Cognition and Behaviour

- *Reciprocal connections between the caudal ventrolateral medulla and the spinal cord*
  ***I. Tavares**, A. Almeida, F. Esteves, D. Lima*

- *Temporal and spatial alteration of responses in somatosensory thalamic cells after partial ligation of the sciatic nerve in the rat*
  ***V. Galhardo**, J. Bruegemann, A. V. Apkarian, D. Lima*

- *Gender-related differences and influence of age on the number of estrogen receptor-immunoreactive neurons in the medial preoptic nucleus of the rat*
  ***M. D. Madeira**, S. Leal, J. P. Andrade, M. M. Paula-Barbosa*

- *Effects of age and sex on the number of GHRF-, TH-, β-end- and NPY-immunoreactive neurons in the arcuate nucleus of the rat hypothalamus*
  ***S. Leal**, J. P. Andrade, M. D. Madeira*

- *Sexual dimorphism in the subiculum of the rat hippocampal formation*
  ***J. P. Andrade**, M. D. Madeira*

- *Language acquisition by the isolated right hemisphere: myth and reality. A case report focusing on patient selection*
  ***I. Pavão Martins**, E. Baeta*

- *Subjective estimation of time and immediate recall in Parkinson's disease*
  ***J. J. Ferreira**, M. Coelho, I. P. Martins, A. Castro-Caldas*

15:30 – 16:00 - Coffee

Session IV – Genetics of neurological disorders

Chairpersnons: *Jorge Sequeiros, M. Celeste Lechner*

16:00 – 16:30 - Young Lecture

Expanded $(CAG)_n$/polyglutamine-associated neurological diseases: proposed models of pathogenesis

Patrícia Maciel

16:30 – 17:15 - Oral Communications

16:30 - *Arylamine N-acetyl transferase (NAT2) genotype in sporadic Alzheimer's Disease (AD) patients: potential role of the NAT2 alleles in the individual susceptibility to AD*

Maria Celeste Lechner

16:45 - *Correlation between 5HTR2A genotype and redox status in Alzheimer's disease*

M. M. M. Grazina*, F. M. P. Silva, M. T. Proença, L. M. Oliveira, I. Santana, B. Santiago, I. Cunha, C. R. Oliveira*

17:00 - *Apolipoprotein E genotype of sporadic Alzheimer's Disease patients: marked prevalence of APO ε4 allele and importance of APO ε4 zygosity*

Luísa Rocha, ***Alexandre de Mendonça****, Carlos Garcia, Maria Celeste Lechner*

17:15 - Closing Session