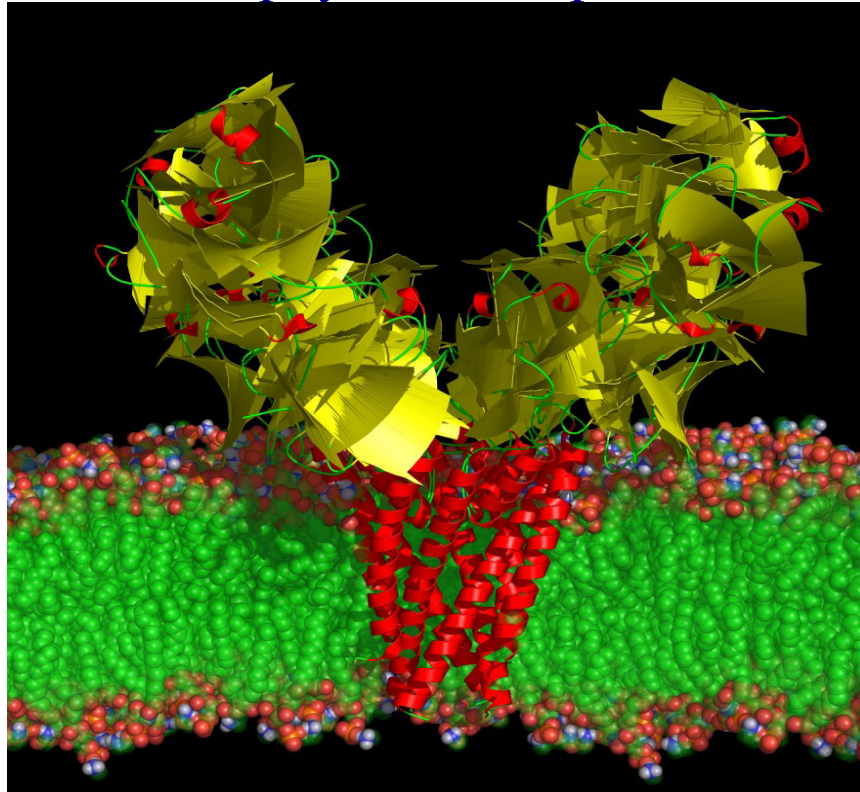


SPB_f

6th short course of the
Portuguese Biophysical Society

From Membrane Transport to Neurosciences: a Biophysical Perspective



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14-16th October 2005, Casa do Brasil, Santarém

Main Organizers: G. Soveral (FFUL , PT) & A. Ferrer-Montiel (UMH , SP)
Organizing Committee : M. A. R. B. Castanho (FCUL , PT), M. M. Pereira (ITQB-UNL
, PT), N. Santos (FMUL , PT), C. M. Soares (ITQB-UNL , PT), B. Victor (ITQB-UNL,
PT)

In association with Sociedad de Biofísica de España (Spanish Biophysics Society)



<http://www.itqb.unl.pt/~biophysics/course.html>

● **Scope:** The aim of this course is to provide a broad introduction to biological transport and neurosciences, seen from a biophysical perspective. The course is oriented towards researchers in the areas of biochemistry, biology, chemistry and related fields. The lectures will cover general aspects of biological transport and its regulation, including the molecular systems responsible for it. The special relationship between cellular transport and signaling with neurosciences will be emphasised, with several lectures covering several topics in neurosciences, from basic research to health aspects.

● **Program**

Friday, October 14th

18:00 Registration and Welcome Reception

Saturday, October 15th

Introductory remarks (Cláudio M. Soares, ITQB-UNL, PT)

09:30-10:30 – Biological transport: an overview (Graça Soveral, FFUL, PT)

10:30-11:00 – Coffee Break

11:00-12:00 – Ion transport in epithelial cells (A. Rebelo da Costa, ICBAS, PT)

12:00-13:00 – Structure and function of aquaporins (Teresa Moura, CQFB/FCT/UNL, PT)

13:00-15:00 – Lunch

15:00-16:00 – Bottom Up dynamic models of biological systems (Hugo Gil Ferreira, CQFB/FCT/UNL, PT)

16:00-16:30 – Coffee Break

16:30-17:30 – Spatial Regulation of Intracellular pH in mammalian cells (Richard Vaughan-Jones, U. Oxford, UK)

18:00 – Guided Tour

20:00 – Course Dinner

Sunday, October 16th

10:00-11:00 – Receptors and signal transduction mechanisms (Luís do Rosário, CNC, PT)

11:00-11:30 – Coffee Break

11:30-12:30 – TRP channels as cellular sensors (Felix Viana, IN-CSIC Alicante, SP)

12:30-14:30 – Lunch

14:30-15:30 – Voltage-gated ion channels structure and function (Antonio Ferrer. IMBC-UMH, Elche, SP)

15:30-16:00 – Coffee Break

16:00-17:00 – Glutamate neurotransmission and excitotoxicity (Jaime Merino, Unex, Badajoz, SP)

17:00-18:00 – Channelopathies (Rosa Planells-Cases, Centro de Investigación Príncipe Felipe Valencia, SP)