

**Laboratório de Farmacologia e Neurobiologia**

**Unidade Multidisciplinar de Investigação Biomédica (UMIB)**

## **POST-DOCTORAL FELLOW POSITION**

A **post-doctoral fellow position** is available at the **Unit for Multidisciplinary Investigation in Biomedicine (UMIB)** to study functional and structural aspects of cell dynamics, using a combination of **electrophysiology and live imaging techniques** (confocal laser scanning microscopy). The post-doctoral fellowship, **in exclusivity**, is for a period of at least **one year** starting on 1st April 2008, and is **renewable** for a further 24 months. The annual allowance of the fellowship is **€18.000,00**, co-financed by Instituto de Ciências Biomédicas de Abel Salazar da Universidade do Porto (ICBAS-UP) and Olympus Portugal, S.A., through the scientific collaboration protocol signed between the two parties.

**Project:** The primary focus of our research is to understand the biological significance of cell-to-cell dynamics unraveling the mechanisms by which neurons and non-excitabile cells modulate intracellular calcium oscillations and exocytosis in response (1) to endogenous mediators, (2) to the pattern of cell activation, and (3) to pathophysiological conditions. We will also combine long term fluorescence imaging with intrinsic signal optical imaging, local field potential recordings, and cell photo-activation *in vitro*, to investigate the relationship between structural changes and functional changes in cell signaling.

**Job Description:** Development of independent research as well as coordination and advise of projects dealing with functional confocal laser scanning microscopy. Collaborate on pos-graduate training and participate in workshops of technology transfer. Evaluate and development of Olympus innovative software and hardware products in the confocal microscopy field.

**Place of Work:** Laboratory of Electrophysiology and Cell Signalling – Unit for Multidisciplinary Investigation in Biomedicine (UMIB), ICBAS/UP. The host laboratory masters a large panel of techniques ranging from cell biology techniques to live imaging, laser micro-dissection, cellular electrophysiology, biochemistry and molecular biology analysis, *in vivo* and *in vitro* animal models of disease. The institution has strong research and training programs, and has access to state-of-the-art core facilities in cellular imaging, cell culture and human tissues bank. The successful candidate will have extensive opportunities for interdisciplinary collaboration, as the laboratory benefits from the extremely dynamic environment of the Unit for Multidisciplinary Investigation in Biomedicine (UMIB) merging basic science to clinical investigation topics.

### **Candidate Profile:**

- Candidates should have a PhD degree in Biomedicine, Bioengineering, Biology, Biochemistry, Molecular Biology or related areas with at least three years of experience, and an outstanding publication record.
- We are looking for highly motivated candidates with expertise in isolation and processing live cells/tissues, immunohistochemistry/immunofluorescence, advanced confocal microscopy synchronized with microinjection and electrophysiology.

Applications should be received between **January 21st, 2008 and February 8th, 2008**. The proposals should include a letter of motivation, detailed CV (plus copies of the major publications), 2 reference letters, a summary of major research accomplishments and future research plan, and they should be addressed to:

Professor Paulo Correia de Sá

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