

## IBMC - Instituto de Biologia Molecular e Celular

**Internal Code PostDoctoral Fellowship:** ON2201411

**Title:** Host-Pathogen Interactions – NORTE-07-0124-FEDER-000002

IBMC, a leading and dynamic research institution in the field of Life and Health Sciences is opening **1 (one) Postdoctoral Fellowship** to join its Research Program in Host-Pathogen Interactions. We are looking for a Fellow holding a PhD in Microbiology, Biology, Biochemistry or related fields with experience and full autonomy in working in Molecular and Cellular Microbiology, Microscopy, Cytometry, and with a license to work with animals (FELASA B). English language, both spoken and written, and good inter-personal relationships in the context of a multidisciplinary research team are essential attributes. Preference will be given to candidates with these characteristics.

### Work Plan:

The interaction between pathogens and their hosts is a complex and dynamic event, with each player having to recognize, respond and adapt to the other. Pathogens have evolved strategies to manipulate and evade host defences to optimize their survival and/or transmission. Meanwhile, the host defence system must balance the requirement to control the pathogen with the potential for damaging its own tissues. An infection is thus accompanied by responses from both the pathogen and the host and it is the balance between these responses that defines the infection outcome.

The project aims at identifying and studying the molecules and pathways that play critical roles during the interaction of pathogens with their hosts. We examine host-pathogen interactions from both angles: the virulence mechanisms employed by pathogens to infect, colonize and persist in their hosts, and the mechanisms engaged by the host to resist infection at the cellular and organism levels. In addition, we analyze the mechanisms of pathology induction and investigate potential therapeutic and preventive strategies. The research uses *in vivo* and *in vitro* experimental models of host-pathogen interactions.

The specific objective of this Postdoctoral Fellowship is the identification of new host factors/pathways hijacked by *Listeria monocytogenes* to promote and establish infection.

The Postdoctoral Fellowship is for 8 months, not renewable.

The selected candidate will benefit from an excellent research environment, and have access to state of the art facilities including Advanced Light Microscopy, Flow Cytometry, Gene expression, Animal House, Electron Microscopy, Protein Production and Purification (<http://www.ibmc.up.pt/research/research-facilities>).

Fellowships at IBMC are regulated by current laws relating to the Statute of Science Research Fellows, namely Law 40/2004 of August 18, amended and republished by Decree-Law No. 202/2012 of 27 August and the Regulation of Scientific Research Studentships of the IBMC approved by Fundação para a Ciência e Tecnologia ([www.ibmc.up.pt/fellowships.php](http://www.ibmc.up.pt/fellowships.php))

The fellowship amount is 1495 euros, paid by bank transfer, preferentially.  
(<http://alfa.fct.mctes.pt/apoios/bolsas/valores>)

Applications should be received from October 10th until October 23<sup>th</sup>, 2014. The Postdoctoral Fellowship is expected to start in November 1<sup>st</sup> 2014.

**Selection Comitte:**

Didier Cabanes, PhD

Sandra Sousa, PhD

Francisco Mesquita, PhD

To apply for the Postdoctoral Fellowships interested candidates must hold a PhD degree and submit the following documents a) Complete CV; b) Letter of Motivation; and c) Referee Letter, *via* the online application system: <http://www.ibmc.up.pt/gestaocandidaturas/index.php?codigo=ON2201411>