

IBMC - Instituto de Biologia Molecular e Celular
BIM fellowship (f/m)

Internal Code: Norte2020NEURO58

Project: NORTE-01-0145-FEDER-000008 – Porto Neurosciences and Neurologic Disease
Research Initiative at i3S

Title: Characterization of Ataxin-3 macromolecular interactions

IBMC/i3S is opening **1 (one) BIM** to join its Research Program in “Novel therapeutic tools for Machado-Joseph Disease: Lessons from molecular interactions”

We are looking for a fellow with a Master degree in Biochemistry, Biology, or related fields with a final score ≥ 16 . The candidate should have full autonomy in working in Molecular Biology and Biochemistry. Preference will be given to candidates with previous experience in cloning, recombinant protein production and purification, and analysis of protein interactions by ITC. Previous experience in the field of amyloid kinetics studies will be valued. Applicants should be fluent in English and be capable of establishing good inter-personal relationships in the context of a research team. The candidate should be available to join the team immediately.

Group: Protein Crystallography

PI: Sandra de Macedo Ribeiro

Work Plan:

Ataxin-3, the protein whose mutation causes Machado-Joseph disease, is a multidomain protein containing a globular cysteine protease domain (a.k.a. Josephin domain) followed by a flexible linker with the expandable polyglutamine tract. Multiple experimental evidences show that the globular catalytic domain contains aggregation-prone regions involved in the initial steps of aggregation, a mechanism that is independent of the polyQ region. Recently, we identified ataxin-3 interacting proteins that bind to the Josephin domain and delay protein aggregation. Based on this hypothesis, specific protein binders were developed with the aim to bind to aggregation prone regions and prevent ataxin-3 aggregation. This project aims to determine the binding specificity of these molecules as well as their effect on both “normal” and polyQ-expanded ataxin-3, using biochemical and biophysical methods.

The work will be developed at Instituto de Investigação e Inovação em Saúde - i3S, Porto, Portugal.

Selection of candidates:

Candidates will be selected according to their CVs and, if necessary, through an interview.

The BIM Fellowship will be for 3 months, renewable up to 6 months and it is expected to start in November 15th, 2017.

The fellowship amount is 980 euros, paid by bank transfer, preferentially.

(<http://alfa.fct.mctes.pt/apoios/bolsas/valores>)

Fellowships 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 IBMC approved by Fundação para a Ciência e Tecnologia

(<http://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2015.pdf>)

Selection Committee:

Sandra Macedo Ribeiro, PhD

Pedro J. B. Pereira, PhD

Alexandra Silva, PhD

Applications are open from October 15 to 31st 2017.

To apply for the Research Fellowship interested candidates must submit a complete CV *via* the online application system at:

<http://www.ibmc.up.pt/gestaocandidaturas/index.php?codigo=Norte2020NEURO58>

The ranking list of candidates will be published at IBMC website, and the selected candidate will be notified by email.