

Reference: FLAD-Life Science 2020

Title of the project: “Characterization of the molecular properties of a potassium transporter”

Internal Code: PR341802

IBMC (Instituto de Biologia Molecular e Celular, Porto, Portugal) is seeking a Research Fellow to development tasks on the above mentioned project, financed by “FLAD” (Fundação Luso-Americana).

The Fellowship will be for 16 months, and is expected to start on September 1st, 2018.

The fellowship amount is 1495 euros, paid by bank transfer, preferentially.

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

Work plan: A fundamental property shared by all cells is that the intracellular concentration of K^+ is higher than that of Na^+ . In bacteria, internal K^+ is linked to regulation of intracellular pH, cell turgor, and adaptation to environmental changes such as high salinity. Importantly, the protein machinery involved in K^+ homeostasis in bacteria is conserved, but we lack both an understanding of the molecular properties of its individual components as well as an integrated view of the machinery. Here we propose to characterize the biochemical and structural properties of a potassium transporter involved in K^+ homeostasis in a model bacterial organism, *Bacillus subtilis*.

Applications are open from 15 to 30th of July 2018.

Requirements:

PhD in Biochemistry or similar, with experience in molecular biology techniques, expression and purification of proteins and determination of protein structures using X-ray crystallography (including crystallization of proteins, data collection at synchrotrons, application of Molecular replacement and SAD/MAD techniques and macromolecular refinement)

The proposals should include a letter of motivation, PhD Certificate and CV and should be submitted on IBMC webpage at:

<http://www.ibmc.up.pt/gestaocandidaturas/index.php?codigo=PR341802>

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

Selection Committee:

João Morais Cabral, PhD

Carol Harley, PhD

Rita Rocha, PhD