



ANNOUNCEMENT OF AN INTERNATIONAL CALL FOR THE SELECTION OF A RESEARCH TECHNICIAN (MSc)

Internal code: MSc_Technician/FCT_Kmachinery/0907/2025

A call is opened for the position of a Research Technician with Master's Degree, for an unfixed term work contract, to carry out technical duties within the project **"The cellular organization and molecular function of the K⁺ machinery in a bacterium"**, reference Programa ERC-Portugal-Kmachinery, funded by the FCT – Fundação para a Ciência e Tecnologia IP.

Scientific Area: Biochemistry

1. Project summary and work plan

Despite their importance for cell viability, the physiological function of ion channels in bacteria is unclear, in part because the molecular properties of many of these membrane proteins have not been characterized. The aim of this project is to characterize the functional and structural properties of a cation channel from *Bacillus subtilis*, a Gram-positive model organism. The project involves the expression and purification of the cation channel and its reconstitution in liposomes. After optimization of a fluorescence-based ion flux assay, the candidate will assess the modulation of channel activity by different molecules. In parallel, the functional properties of amino acid mutants increase the activity of the one the channels. Several properties of the selected mutants will be evaluated. Including levels of expression, activity and regulation.

2. Jury

Chairman: João Henrique Morais Cabral; Other Members: Carol Harley, Tatiana Cereija. Substitutes: Katharina Weinhaeupl, Isabel Matas.

3. Workplace

i3S - Rua de Alfredo Allen, 208 Porto, research group Structural Biochemistry.

4. Professional category and monthly remuneration

Research Technician, €1.565,37, subject to taxes and other mandatory deductions.

5. Obligatory requirements for admission

- a) Master's degree in Biochemistry or related scientific area;
- b) Solid laboratory experience with DNA purification and cloning, expression and purification of membrane proteins, membrane protein reconstitution in liposomes and functional characterization with flux assays;
- c) Ability to communicate proficiently in English (written and spoken).

Preferential:

- a) Laboratory experience in the analysis of protein structure, in the generation of random mutant libraries and in library selection using functional assays;

- b) Immediate availability to start the contract (to be mentioned in the motivation letter).

6. Evaluation of the applications and publication of the results

Weight of the different curricular valuation criteria

- a) Research experience and its relevance for this project work plan, considering the points highlighted above in Admission Requirements (80%);
- b) Motivation letter (10%);
- c) Interview – *optional* (10%).

If needed, the evaluation panel may invite the most highly ranked candidates (up to 2) for an interview. The final classification system for candidates is expressed on a scale from 0 to 100. Candidates who are not interviewed will receive a maximum score of 90%.

Candidates are excluded from admission to this call if they do not fill out their application correctly or do not meet the obligatory admission requirements. If in doubt, the jury may ask any candidate for additional documents in support of their statements.

False statements made by candidates will be sanctioned in accordance with the law.

The jury will take minutes of their meetings, which may be consulted by candidates upon request.

The jury deliberates by means of a justified vote according to the evaluation criteria, with no abstentions allowed, and draws up a list of excluded and admitted candidates, ranked by the respective classification after the curricular evaluation. Candidates will be notified of the results by email.

After publication of the ranking list, if their wish to do so, the candidates have 10 working days to submit comments.

In the 90 days following the deadline for submission of applications, the institute Director, who is also responsible for the final decision of hiring, will ratify the decision of the jury.

This call is intended exclusively to fill the indicated position on offer and may be canceled before the final ranking list of candidates is ratified by the Director. Accordingly, the position will no longer be available.

7. Submission of applications

Applications must include all the documents proving that they fulfill the admission requirements, namely:

- a) Copy of certificate or diploma;
- b) Detailed *Curriculum Vitae*;



- c) Motivation letter (stating availability to start duties on 01/09/2025);
- d) Other relevant documents.

The submission of applications is digital, in pdf format, from 09/07/2025 a 22/07/2025, in the following link:

<https://dozer.i3s.up.pt/applicationmanagement/#/addapplications/92fe5fa3a8d28f33e98ecf07594f224>

8. Start and duration of the contract

The anticipated start date of the contract is 1/09/2025 and is subject to budget availability. The maximum duration of the contract will be 12 months.

9. Non-discrimination and equal access policy

i3S actively promotes a policy of non-discrimination and equal access. No applicant shall be privileged, benefited, prejudiced, or deprived of any right or exempted from any duty on the basis of ancestry, age, gender, sexual orientation, marital status, family situation, economic situation, education, origin or social condition, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic origin or race, territory of origin, language, religion, political or ideological beliefs, or trade union membership.

Within the framework of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, i3S adopts the Open, Transparent and Merit-based (OTM-R) principles for the recruitment of researchers, with the aim of conducting fair and transparent recruitment processes, bringing equal opportunities to all candidates.

10. Applicants with disabilities

Under the terms of Decree-Law 29/2001, of February 3, the candidate with a disability is given preference in equal ranking, which takes precedence over any other legal preference. Candidates must declare under oath their degree of disability, the type of disability and the means of communication/expression to be used in the selection process, under the terms of the aforementioned decree.