

## FUNDACIÓN BIOFÍSICA BIZKAIA/ BIOFISIKA BIZKAIA FUNDAZIOA

### OFFER – Predoctoral contract (FPI) in Membrane Transport Mechanisms

Publication date: August 5, 2024

**Deadline: November 30, 2024**

The Instituto Biofísica (IBF) is a joint research centre of the University of the Basque Country (UPV/EHU) and the Spanish National Research Council (CSIC). In partnership with Fundación Biofísica Bizkaia (FBB), the centre focuses on advancing knowledge about the physical and chemical processes underlying biology and disease. With the FBB accredited as a Basque Excellence Research Centre (BERC) by the Basque Government, the IBF and FBB partnership enjoys a strong national and international reputation, and provides outstanding shared facilities for advanced biophysical and structural biology approaches in a new research building in the main Leioa campus of the UPV/EHU.

The recently established Basque Resource for Electron Microscopy (BREM) at IBF-FBB houses a Krios G4 (ThermoScientific) with a Gatan's BioContinuum Imaging Filter and K3 direct electron detector for high resolution data collection, as well as comprehensive cryo-specimen preparation equipment. It also includes a focused-ion beam scanning electron microscope (FIB-SEM) Aquilos2 (ThermoScientific). Furthermore, BREM will install a specimen optimization cryo-microscope at the IBF-FBB in 2025.

### Offer and description of the project

We offer a predoctoral position at the Membrane Transport Mechanisms lab (<https://www.biofisika.org/en/research/membrane-transport-mechanisms>) at Instituto Biofísica (Leioa) under the supervision of Dr. Igor Tascón.

The research will focus on the molecular mechanisms of solute transport across cell membranes involved in human disease. This project aims to uncover the structural and functional determinants governing solute transport via active transmembrane carriers. We use a combination of cutting-edge electron cryo-microscopy (cryo-EM) and functional assays to better understand solute homeostasis and the pathologies associated with solute transport dysfunction. Our lab provides training in membrane protein biochemistry, biophysical characterization and high-resolution cryo-EM. In addition, there will be opportunities for short stays in partner international research institutions.

This is a full-time, four-year position funded by The Spanish Ministry of Science, Innovation and Universities. The contract will be part of the grant PID2023-146771NB-I00, funded by MCIU/AEI/10.13039/501100011033 and funded by the FSE+.

### Required background

We seek highly qualified applicants, preferably with MSc in Biochemistry, Molecular Biology, Biotechnology, Chemistry, Physics, Biomedicine or related disciplines

Good written and oral communication in English is required.

Candidates must comply with the corresponding requisites established in the "Proyectos de Generación de Conocimiento 2023" call of the MCIU.

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### Evaluation criteria

Criterion 1 will assess the candidate's academic and scientific track record (up to 50 points), including scientific contributions (up to 45 points) and the impact of stays at prestigious institutions (up to 5 points).

Criterion 2 will evaluate the candidate's suitability for research activities (up to 50 points), considering their prior training, experience, and the added value they will bring to the research project.

### Application procedure

We are an equal opportunity employer committed to diversity. Applications should be addressed through the Biofisika website contact page (<http://biofisika.org/contact/>), adding the following subject: [Job Application: *125\_ITascon FPI*]. It is recommended that applications are made as soon as possible as they will be considered upon arrival. Applications in a single pdf file must include:

- Curriculum Vitae.
- A motivation letter.
- The contact of 2 referees