



## PHD POSITION IN ION CHANNELS BIOPHYSICS AND MOLECULAR NEUROSCIENCE

Instituto de Tecnologías Biomédicas – ULL, Tenerife, Spain

We are seeking a **motivated PhD candidate** with a **4-year, fully-funded Predoctoral Contract** (FPI program-AEI), to join the [MOLCAN-NANOPDICS group](#) to work on the funded project BIOCAN (PID2024-156894NB-I00), focused on understanding how BK channels nanodomains regulate neuronal excitability, synaptic function, and disease mechanisms.

*The position is expected to start in April/May 2026.*

### Project summary

The PhD student will investigate the **structure, regulation, and physiological role of BK-Ca<sup>2+</sup> nanodomains**, with emphasis on NMDAR-BK macrocomplexes, their molecular composition, and their dysfunction in Fragile X Syndrome, GRIN-related encephalopathies and KCNMA1-linked channelopathies. ([LINK TO FULL PUBLICATIONS LIST](#))

### Your tasks

Depending on interest and background, work may include:

- Patch-clamp electrophysiology in cells or brain slices
- Super-resolution/STORM and TIRF microscopy
- Proximity assays (BioID, PLA) and interactome analysis
- CRISPR-based generation of cell models
- Structure-function studies and collaboration with national/international labs

### Requirements

- Master in Biology, Biomedicine, Neuroscience, Biotechnology, or related fields
- Eligible to sign a predoctoral contract under Spanish Law (14/2011, Art.21)
- Good English communication skills
- Strong motivation for molecular neuroscience/biophysics
- Previous experience in any of the following is a plus (not required): electrophysiology, imaging, molecular biology, programming/data analysis

### We offer

- 4-year salaried FPI contract, fully funded by the Spanish Ministry of Science
- Training in cutting-edge methodologies
- Supportive and collaborative research environment
- International collaborations and attendance to international meetings and courses
- Research stays abroad (minimum 3 months)

### How to apply

- ✓ The official FPI call will be published in the ULL webpage at the start of 2026.
- ✓ If you are interested in this position, please contact [giraldez@ull.edu.es](mailto:giraldez@ull.edu.es) as soon as possible!