OFFER 152

Open Positions: ERC Advanced Grant project "T6S-PoreMech"

- **Location:** Instituto Biofisika (Bilbao, Spain)
- **Principal Investigator:** Prof. David Albesa-Jové
- **Publication Date:** July 27, 2026
- **Contract Duration:** 2-year initial contract, renewable for up to 2 additional years (2+2 years) subject to project needs.
- **Application Deadline:** Applications will be reviewed on a rolling basis starting 1st September 2026, and the positions will remain open until filled.
- **Position starting:** From 2027 (flexible)

About the Project

This project has received funding from the European Research Council (ERC) under the European Union's Horizon Europe research and innovation programme (Grant Agreement No.101265901)

The **T6S-PoreMech** project, funded by a prestigious **ERC Advanced Grant**, aims to establish a new unifying framework for understanding Type VI Secretion System (T6SS) Pore-Forming Toxins (PFTs). By combining cutting-edge single-particle cryo-electron microscopy (cryo-EM), membrane protein biochemistry, and single-channel electrophysiology, the project will resolve the atomic architectures of active, membrane-inserted toxin pores and decipher how bacteria defend themselves against these molecular weapons.

We are seeking three highly motivated and talented team members to join this exciting 5-year initiative at **Instituto Biofisika**:

Open Positions

1. Postdoctoral Researcher – Biophysics & Toxin Function (Postdoc 1)

- **Role:** Lead the in vivo and in vitro functional characterization of T6SS pore-forming toxins and their biophysical molecular mechanisms.
- **Essential qualifications:**
  - Ph.D. in Biophysics, Biochemistry, Molecular Biology, or a related field.
  - Demonstrated expertise in **biophysics**, **membrane proteins**, and/or **pore-forming toxins**.
- **Desirable qualifications:**
  - Experience with single-channel planar lipid bilayer electrophysiology, liposome/nanodisc reconstitutions, or flow cytometry-based cellular assays.

2. Postdoctoral Researcher – Cryo-EM & Structural Biology (Postdoc 2)

- **Role:** Drive high-resolution single-particle cryo-EM structure determination of active, membrane-inserted toxin pores in nanodiscs and toxin-immunity complexes using megabody technologies.
- **Essential qualifications:**
  - Ph.D. in Structural Biology, Biochemistry, Biophysics, or a related field.
  - Demonstrated expertise in **cryo-EM** (sample preparation, grid vitrification, data collection, and processing), **membrane proteins**, or **pore-forming toxins**.
- **Desirable qualifications:**
  - Experience with nanodisc reconstitution, megabodies/nanobodies, or membrane protein purification.

3. Technical Specialist – Protein Biochemistry

- **Role:** Support the day-to-day laboratory operations, manage molecular biology pipelines, and lead the expression and purification of challenging bacterial membrane proteins to support all project pillars.
- **Essential qualifications:**
  - B.Sc., M.Sc., or Ph.D. in Biochemistry, Biotechnology, or a related field.
  - Proven expertise in **protein biochemistry**, specifically **protein expression and purification** (bacterial expression systems, affinity/size-exclusion chromatography).
- **Desirable qualifications:**
  - Prior experience in handling membrane-associated proteins, lab management, and inventory ordering is highly valued.

Selection Process & Evaluation Criteria (OTM-R Aligned)

Recruitment follows an **Open, Transparent, and Merit-based (OTM-R)** process across four stages:

Assessment Stage	Primary Evaluation Criteria	Weighting
1. Eligibility Check	Compliance with formal degree requirements and application completeness.	Pass / Fail
2. CV & Background	Technical expertise alignment based on job description and academic/professional track record.	50%
3. Interview	Presentation of past research, technical competence, problem-solving, English fluency, and project fit.	40%
4. Reference Check	Confidential evaluation of past performance, teamwork, and reliability from 2–3 references.	10%

Notice: Reference checks and interviews form an integral part of evaluation. **Only shortlisted candidates will be contacted for interview.** Equal opportunity principles strictly apply throughout selection.

What We Offer

- Involvement in a high-impact, pioneering European research project.
- Access to state-of-the-art biochemistry, electrophysiology, and high-end cryo-EM facilities.
- A collaborative, international, and stimulating research environment.
- Competitive salaries commensurate with qualifications and experience.

How to Apply

Interested candidates should send a **single PDF** containing a cover letter, a CV with a full publication list, and contact details for 2–3 references to ***davidalbesa@gmail.com*** with the subject line *"ERC T6S-PoreMech – [Position Name]"*. Applications will be evaluated on a rolling basis starting 1st September, 2026