Call reference number	(2025-07)
Call name	IKUR Quantum Technologies-QProt Postdoctoral position on synthesis and characterization of protein-based biomaterials for spintronics and quantum technologies
Application Deadline	2025/05/28

Introduction and main description

BCMaterials, Basque Center for Materials, Applications and Nanostructures, is an autonomous research center launched in June 2012 by Ikerbasque, the Basque Foundation for Science and the University of the Basque Country (UPV/EHU) as a research center for Materials, Applications and Nanostructures. The center is included in the BERC's (Basque Excellence Research Centers) network and its mission is to generate knowledge on the new generation of materials, turning this knowledge into (multi)functional solutions and devices for the benefit of society.

We are looking for a post doctorate level researcher in the area of the protein-based biomaterials for bioelectronics and quantum technologies. The hired researcher will optimize the synthesis, structural properties of self-assemblies made of designer protein systems. Protein-based biomaterials are candidates for next-generation bioelectronic and quantum devices due to their inherent biocompatibility, sustainability and biodegradability. The work will be carried out at BCMaterials, in collaboration with CIC biomaGUNE and UPV/EHU.

The ideal starting date is 01/07/2025, and for experienced researchers competitive salary will be paid which are at par with other EU scientific establishments.

Skills and Requirements

The candidate must have a PhD in Biophysics, Chemistry, Nanosciencie and Nanotechnology, Materials Science or related areas, with a marked interdisciplinary character, bridging Biology/Biochemistry with BioEngineering.
Other important requirements are:
- A strong background on protein enginering, bionanotechnoloy, self-assembly, and biomaterials.
- Experience with multiple characterization techniques such as AFM, TEM, cryo-TEM, SEM, and multiple spectroscopies including circular dicroism, fluorescence, FTIR, NMR, and mass spectrometry.
- Proficiency in speaking and writing in English.
- Capacity for teamwork in an interdisciplinary and international environment.
- Self-motivation and willingness to perform independent research.
- Supervision skills.
- Creativity in problem solving. Ability and eagerness to learn new skills outside own discipline.
-Presentation skills and ability to meet the deadline are also required

Work Program / Duties / Responsibilities

The research will be carried in the context of the IKUR Quantum Technologies QProt project, involving electrical and spin conductivity characterization of designer protein-based biomaterial assemblies. The researcher will be in charge of developing repeat protein systems based on consensus tetratricopeptide repeats (CTPR) by sequence design to encode selected assemblies with different dimensionality and geometry, including protein 1D fibers, protein 2D assemblies, and protein crystalline assemblies. The estimated duration of the tasks realization within the project is 6 months.

Application Procedure

Apply by submitting a motivation letter and a CV (in English) using the "Contact" button at the corresponding offer, at the "Join Us" area on BCMaterials' portal (https://www.bcmaterials.net/join-us).
Your name and email address will be required for furher contact too.

Other Relevant Information

We provide a highly stimulating environment with state-of-the-art infrastructures, and unique professional career development opportunities. We offer and promote a diverse and inclusive environment and welcomes applicants regardless of age, disability, gender, nationality, ethnicity, religion, sexual orientation or gender identity.