Call reference number	(2026-30)
Call name	Predoctoral researcher to work on cardiac stimulation using electroactive materials
Application Deadline	2026/12/13

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.

The laboratory of Biomaterials and Biomedicine at BCMaterials is seeking a highly motivated Predoctoral Researcher for the project "Channelopathies on chip to decipher the link between plasmatic lipid profiles and cardiac failure (PATHOS)" PID2025-173286OB-C31, funded by the Ministry of Science, Innovation and Universities.

The PhD candidate will work on the stimulation of cardiac cells (wild-type and carrying mutations in the ion channels) using electro- and magnetoactive composites. To this end, the PhD candidate will define the cell response to the physical stimulation in terms of functionality and lipid metabolism. The candidate will also participate in the optimization of the stimulation materials and devices.

We offer a one-year contract. After an evaluation of the candidate's performance, if the results are positive, the researcher will be hired for three more years. It is estimated that four years are enough to develop a PhD thesis.

Skills and Requirements

Essential qualifications and skills:
* Master Thesis in Biochemistry, Biology, Materials Science, Engineering or a related field.
* Motivation to join a life sciences project focused on tissue regeneration.
* Competitive academic records.

Desirable qualifications and experience:
* Capacity for teamwork in an interdisciplinary and international environment.
* Self-motivation and willingness to perform independent research.
* Proficiency in speaking and writing in English.
* Presentation skills.

Work Program / Duties / Responsibilities

* Processing of electro- and magnetoactive biomaterials
* Perform experiments under static and dynamic stimulation to characterize the response of cardiac cells, including immunostaining, live imaging and functional assays.
* Perform and analyze lipidomic experiments.
* Participate in group meetings and collaborate with other laboratory members.
* Follow BCMaterials' laboratory safety, quality and data-management procedures.

Application Procedure

Apply by submitting a motivation letter and a CV (in English), besides a recommendation letter and/or a list of referees (if possible), 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.