Call reference number	(2026-03)
Call name	Postdoctoral position on Tissue Regeneration based on biodegradable materials
Application Deadline	2026/02/08

Introduction and main description

BCMaterials – the Basque Center for Materials, Applications and Nanostructures (Leioa, Spain, www.bcmaterials.net) – is an autonomous research center belonging to Ikerbasque, the Basque Foundation for Science, and the University of the Basque Country (UPV/EHU).

The laboratory of Biomaterials and Biomedicine at BCMaterials is seeking a highly motivated Postdoctoral Researcher for a project on Mesenchymal Stem Cell (MSCs) stimulation using novel biodegradable electroactive materials. The selected candidate will work on the development of biodegradable materials, specifically focusing on medium-chain polyhydroxyalkanoates and micro-nano-cellulose reinforcements derived from waste sources.

The project aims to process these biobased materials into functional substrates and scaffolds to study their biological interaction. A critical component of the research will be evaluating MSCs and their response to these sustainable matrices.

Candidates with experience in both processing of materials for cell culture and biological characterization (cell culture/tissue engineering) are particularly welcome.

This post-doctoral position is to work in the BIOWIN2 project, funded under the Elkartek program by the Basque Government, with a finishing estimated date on 31/12/2026.

Skills and Requirements

PhD in Biotechnology, Materials Science, Biomedical Engineering, or related areas.

Experience in the processing (electrospinning, protein coating) and physicochemical characterization (AFM, FTIR) of materials for cell culture.

Experience in cell culture techniques, specifically with human (adipose and bone marrow-derived) MSCs, and the evaluation of cell-material interactions (adhesion, proliferation, and differentiation).

Experience in immunolabelling and microscopic fluorescence image quantification.

Expertise in monitoring cellular activity using biochemical assays.

Demonstrated ability in technical writing for scientific publications.

Work Program / Duties / Responsibilities
Development of processes to fabricate and coat biodegradable cell culture surfaces. In vitro culture of mesenchymal stem cells on the developed materials to assess biocompatibility and functional response. Determination of the mechanotransduction and differentiation pathways of MSCs in response to the properties of the scaffolds.

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.