Call reference number	(2026-12)
Call name	Post-doctoral position: Lab on a chip devices
Application Deadline	2026/08/09

Introduction and main description

GREENCHIP is a collaborative research project funded by the Basque Government that aims to develop new materials, manufacturing processes and design strategies for the standardisation and industrial uptake of more sustainable, modular and reproducible microfluidic components and systems.

Within GREENCHIP, BCMaterials leads research on new materials for microfluidic devices and contributes to the development of modular interconnections, piezoelectric micromixers, miniaturised microdialysis systems, sustainable sealing and assembly processes, life-cycle assessment, and microfluidic demonstrators for biotechnological and biomedical applications.

We are seeking a postdoctoral researcher to join the Miniaturized Electrochemical Devices Group at BCMaterials. The successful candidate will contribute to the design, fabrication, integration and experimental validation of functional microfluidic modules, working in close collaboration with the other research centres and universities participating in the GREENCHIP consortium.

We offer a pre-doctoral position in the framework of this project "KK-2026/000078 - GREENCHIP" with a finishing date on 31/12/2027.

Skills and Requirements

ESSENTIAL QUALIFICATIONS and SKILLS
* PhD in Physics, Chemistry, Materials Science, Engineering or a related field.
* Research experience in microfluidics, Lab-on-a-Chip systems or miniaturised devices.
* Hands-on experience in the design, fabrication and characterisation of microfluidic devices.
* Ability to plan experiments independently, analyse data and solve experimental problems.
* Good written and spoken English very desirable, with the ability to prepare scientific reports and publications.
* Ability to work effectively in a multidisciplinary and collaborative research environment.

DESIRABLE QUALIFICATIONS and EXPERIENCE
* Experience with polymeric materials, membranes, bonding or sealing of microdevices.
* Knowledge of protein or enzyme handling, filtration, dialysis or other separation processes.
* Experience with CAD, rapid prototyping, additive manufacturing or microfabrication.
* Experience with biological samples, nanoparticles, nanogels or biosensing.
* Familiarity with life-cycle assessment, ecodesign or tools such as OpenLCA.
* Scientific publications or previous participation in collaborative research projects.

Work Program / Duties / Responsibilities

The postdoctoral researcher will contribute to BCMaterials' activities within the GREENCHIP project. Main responsibilities will include:

* Design, fabricate and test modular microfluidic devices and their fluidic, mechanical and electrical connections.
* Develop and characterise piezoelectric micromixers, optimising their design and operating conditions.
* Support the development of miniaturised microdialysis systems for protein and enzyme purification.
* Investigate sustainable bonding, sealing and assembly methods for polymeric microfluidic devices.
* Evaluate device performance, material compatibility, leakage, mixing efficiency and biomolecule recovery.
* Contribute to the design and validation of a microfluidic demonstrator for nanogel production and protein encapsulation.
* Support environmental and circularity assessments of the developed devices.
* Maintain experimental records and contribute to reports, project deliverables, publications, conferences and potential patents.
* Participate in consortium meetings and collaborate with research partners.
* Follow BCMaterials' laboratory safety, quality and data-management procedures.

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.