



Consolidator
Grant

CIPITRIA
LAB

Bioengineering in
Regeneration and
Cancer

ikerbasque
Basque Foundation for Science



PhD Position as part of ERC CoG project DORMATRIX

in the field of Biotechnology, Chemistry, Biochemistry, Biomedical Eng., Chemical Eng., Materials Science

The **Cipitria Lab – Bioengineering in Regeneration and Cancer** at **Biogipuzkoa Health Research Institute**, San Sebastián-Donostia, Spain (<https://cipitriallab.com>) is looking for a **doctoral researcher**. In our group, we aim to understand how biophysical and biochemical properties of native extracellular matrix and synthetic biomaterials guide cell response in regeneration, cancer dormancy and bone metastasis. We are located within the structure University Hospital Donostia-Onkologikoa.

Funded by an **ERC CoG grant** (<https://doi.org/10.3030/101123883>), the main objective of **DORMATRIX** is to engineer breast cancer dormancy as a collective emergent phenomenon using biomaterials-based dormancy-on-a-chip devices. In this project, you will model in vitro breast cancer micro-units applying biophysical principles with novel biomaterials.

Your tasks:

- Apply biophysical principles with novel biomaterials to model in vitro breast cancer micro-units
- Hydrogel synthesis and development of microparticles with controlled physico-chemical properties
- Culturing breast cancer cells in controlled 2D and 3D microenvironments
- Monitoring breast cancer cell dynamics with advanced microscopy and time-lapse fluorescence life cell imaging
- Collaborate in additional projects and become an integral member of our team
- Our lab maintains an active part in Germany, as well as interaction with partners at the Max Planck Queensland Center (<https://research.qut.edu.au/mpqc/>). You will participate in regular consortium meetings and larger consortium events

Your profile, qualifications, knowledge and skills:

- MSc in Biotechnology, Chemistry, Biochemistry, Biomedical engineering, Chemical engineering, Materials Science or similar
- Previous experience in a biomedical lab working on hydrogel fabrication and cell culture will be an asset
- Excellent ability to conduct experiments independently and collaboratively within our group
- Collaborative mindset and motivation to work in an international, interdisciplinary environment
- Strong organization skills, project management and proactive “getting things done” mentality
- Interest to learn and grow professionally in a young, dynamic and competitive lab
- Have a genuine excitement for science, innovation and creative thinking!
- Good written and oral communication skills in English (Spanish is not required)

Suggested reading: Bakhshandeh, Heras et al, Science Advances, 10, eadr3997 (2024); Taieb et al, Lab on a Chip 23, 92–105 (2023); Young et al, Science Advances 10, eadj0975 (2024); Taieb et al, PLoS One 17, e0268297 (2022).

Starting date and duration: Dec 2024-January 2025, for 3 years with possible extension up to 4 years.

Application: Please send in a single PDF of maximum size 5 MB (i) a motivation letter describing your experience, research interests, expectations and preferred start date, (ii) your CV with a complete list of publications, (iii) transcript of university record and (iv) contact information for three references, to: amaia.cipitriasagardia@bio-gipuzkoa.eus and rrhh@bio-gipuzkoa.eus, indicating “**DORMATRIX - PhD**” in the subject line. **The position will remain open until filled.**

Our funders:



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fundación científica
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contra el cáncer



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