



Consolidator
Grant

**CIPITRIA
LAB**
Bioengineering in
Regeneration and
Cancer

ikerbasque
Basque Foundation for Science



Postdoctoral researcher on advanced 3D imaging European Research Council Consolidator Grant - DORMATRIX

in the field of Bioengineering, Biophysics, Biology, Biomedical Eng, Computer Science or similar

The **Cipitria Lab – Bioengineering in Regeneration and Cancer** at **Biogipuzkoa Health Research Institute**, San Sebastián-Donostia, Spain (<https://cipitrialab.com>) is looking for a **postdoctoral 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. Biogipuzkoa is 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 develop advanced 3D imaging to visualize collective cancer dormancy and early bone microdamage.**

Your tasks:

- Develop advanced 3D imaging workflows, primarily light sheet fluorescence microscopy (LSFM)
- Correlative 3D imaging of tissue structure and biology combining LSFM with high resolution X-ray computed tomography
- Optimize sample preparation protocols for imaging of 3D bioengineered systems and biological samples from *in vivo* models
- Collaborate in additional projects that require advanced 3D imaging 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:

- PhD in Bioengineering, Biophysics, Biology, Biomedical Eng, Computer Science or similar
- Previous experience on advanced 3D imaging, in particular with LSFM
- Previous experience in the biomedical field, cell biology or cancer biology labs will be an asset
- Excellent ability to conduct experiments independently and collaboratively within our group
- Collaborative mindset and motivation to work in an international and 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: Young et al, Science Advances 10, eadj0975 (2024); Young et al, Bone 161, 116432 (2022); Bakhshandeh, Heras et al, Science Advances, 10, eadr3997 (2024); Taieb et al, Lab on a Chip 23, 92–105 (2023).

Starting date and duration: March-May 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 – Postdoc advanced 3D imaging**” in the subject line. **The position will remain open until filled.**



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DE ECONOMÍA
Y COMPETITIVIDAD



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