



OLLSCOIL NA GAILLIMHE
UNIVERSITY OF GALWAY



European
Research
Council



HR EXCELLENCE IN RESEARCH

PhD Positions in Cancer Mechanobiology

Biomedical Engineering

University of Galway, Ireland

Applications are invited from suitably qualified candidates for multiple full-time, fully-funded positions that will investigate the mechanobiology of tumour growth and therapy resistance. These positions are funded by a **European Research Council Starting Grant** and will be under the supervision of **Dr Eoin McEvoy**, Assistant Professor in Biomedical Engineering. The researcher will join Dr McEvoy's group, which brings together expertise in biophysical modelling, active cell biomechanics, and *in-vitro* tumour models. The group's overall focus is to develop advanced computational and experimental models that provide a mechanistic understanding of cell and tissue remodelling in cancer and disease, motivating novel mechano-therapeutics and treatment strategies. For further information, see www.mechanomodel.ie.

University of Galway: The University of Galway has world-recognized expertise in biomedical science and engineering, with a particularly strong track-record of developing innovative diagnostic and therapeutic solutions to healthcare challenges. Located in the vibrant cultural city of Galway in the west of Ireland, with over 18,000 students and more than 2,400 staff, the university has a distinguished reputation for teaching and research excellence (<https://www.universityofgalway.ie/our-research/>). Dr McEvoy is also an investigator at CÚRAM, the Science Foundation Ireland Research Centre for Medical Devices, which is embedded in Galway's vibrant Med-Tech ecosystem.

Project Description: Personalised medicine presents an exciting frontier in healthcare that tailors disease mitigation and intervention to an individual patient. This project will develop integrated experimental and computational models for the prediction of cancer patient outcomes, leveraging the biophysical forces that underpin cell behaviour. PhD research topics will bridge subcellular remodelling, single cell mechanobiology, and macroscale tumour evolution to provide a new and fundamental understanding of tumour growth and therapy resistance in breast cancer. As part of the PhD programme (project dependent), you will receive training in computational and experimental cell mechanics, patient-derived tumour organoid generation, microfluidic cell culture, advanced microscopy, agent-based modelling, and/or advanced finite element analysis.

Stipend: Fully-funded four-year scholarship - €22,000 per annum (tax-exempt award). University fees are fully covered by the scholarship. You will also receive a high-end laptop or desktop computer for your research. Travel expenses are included to attend frontier international conferences.

Academic entry requirements: Applicants must hold a Bachelor's degree in Biomedical Engineering, Biomedical Science, Applied Maths or a related field. Prospective candidates should be enthusiastic, motivated, and willing to learn new skills.

Start Date: From January 2024 onwards; positions will remain open until filled.

How to Apply: Interested candidates should send their CV (including the names of two referees) and a one-page cover letter outlining their motivation to work on these projects to Dr Eoin McEvoy at eoin.mcevoy@universityofgalway.ie. Please use the email subject line "PhD Application" to ensure that applications are processed. You are also welcome to reach out for an informal discussion on the available projects and positions.

Application Deadline: Applications will be reviewed periodically until January 31st, 2024.

For more information on moving to Ireland, please see www.euraxess.ie