

Dr. Eoin McEvoy's SEMINAR
"Theoretical and computational models to investigate stress-dependent cell and tumour growth".



04/05/2023



12:00-13:00



Sala de Juntas Edificio Betancourt

"Theoretical and computational models to investigate stress-dependent cell and tumour growth".

Tumour growth is a force-sensitive process, regulated in part by mechanical feedback from surrounding tissue. Such mechano-responsiveness can govern tissue-specific risk and progression of cancer. However, the underlying biomechanisms by which mechanical loading influences cellular growth and proliferation have not yet been uncovered. I will discuss our efforts in developing coupled finite element and agent-based models to investigate mechanosensitive growth, with broad applications to patient-specific cancer diagnosis.

Bio: Eoin is an Assistant Professor in Biomedical Engineering at the University of Galway, Ireland. His research group focuses on the development of novel theoretical, experimental, and computational models to explore the feedback between cell mechanics and tissue remodelling for the prediction of disease progression, with a specific interest in cancer mechanobiology and autoimmune disease. Eoin completed his PhD in cellular biomechanics at the University of Galway. He subsequently worked as a postdoctoral researcher at the University of Pennsylvania and the Center for Engineering Mechanobiology (CEMB), investigating how the tumour microenvironment guides cancer metastasis.

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