



MÁSTER EN INVESTIGACIÓN BIOMÉDICA
Research Project Proposal
Academic year 2022-2023

Project Nº 50
Title: Project title: 3D Bioengineered matrices for tumor models
Department/ Laboratory Laboratory where the project will be carried out indicating Department, Area, Faculty, CUN, CIMA etc.
Group Bioengineering in Regeneration and Cancer (https://cipitrialab.com)
Bioengineering Area at Biodonostia Health Research Institute, San Sebastián
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Summary
The cell microenvironment includes the extracellular matrix, biochemical factors and neighbor cells, and the interaction between them regulates cell function in healing processes as well as in pathological alterations. We use hydrogels and scaffolds to mimic such microenvironments and allow spatial control of mechanical properties, degradability and presentation of polymer-bound biomolecules.
In your project, you will:
- Synthesize and characterize various engineered 3D matrices.
- Develop 3D in vitro tumor models with weakly and highly metastatic breast cancer cell lines to investigate cell-cell and cell-matrix interactions.
- The project could involve the use of patient-derived breast cancer cells and/or patient-derived tissue biopsies.
For more information, please visit our website https://cipitrialab.com.
yes no x
Does the project include the possibility of supervised animal manipulation to complete the training for animal manipulator?