

IBEC (Institute for Bioengineering of Catalonia) is an interdisciplinary research center focused on Bioengineering and Nanomedicine based in Barcelona. IBEC's mission is to develop international high quality interdisciplinary research that, while creating knowledge, contributes to making a better quality of life, improving health and creating wealth. A close link with key universities, reference hospitals and corporations, are assets that facilitate achieving the mission.

IBEC was founded in 2005 by the Generalitat de Catalunya, the University of Barcelona (UB) and the Polytechnic University of Catalonia (UPC).

IBEC is located within the **Barcelona Science Park**, with premises of 2.500 square meters, 16 research groups and a team of researchers and support services of 250 people from 20 different countries. www.ibecbarcelona.eu



Marie Curie Postdoc Position in the Biomechanical quantification of the cancer progression (Ref. MC-VC)

The **Mechanics of Development and Disease** group at the **Institute for Bioengineering of Catalonia (IBEC)** is looking for **Postdoctoral candidates** to apply for the **2016 calls** of the **European Commission Marie Curie Individual fellowship**.

Tasks and responsibilities:

- Tissue culture, cell manipulation, microfabrication and micropatterning [1,2,3].
- Quantification of cell and tissue biomechanics through in vitro and in silico experimental techniques [1,2,3].
- Prediction of cell and tissue biomechanics through computational models (optional) [2].

Requirements for candidates:

- PhD Degree in cell and tissue biophysics/biomechanics or, alternatively, in cell molecular biology.
- Unreserved openness to work at the interface between engineering, biology and physics.
- Ideal previous experience in at least two of the following:
 - i) Molecular biology techniques [3].
 - ii) Microfabrication and micropatterning [1,2,3].
 - iii) Quantification algorithms based on Matlab/ImageJ or computer programming (e.g. Fortran, C++) [1,2,3].
- Self-critical, capacity to learn and bring knowledge.
- High level of English.
- High motivation and ability to be involved in an international multidisciplinary team.
- Excellent team working and communication skills.
- **Transnational Mobility Requirement: researchers must not have resided or carried out their main activity (work, studies, etc.) in Spain for more than 12 months in the 3 years immediately prior to the call deadline (14/09/2016).**

Selected references:

- [1] [Serra-Picamal et al.](#) – *Mapping forces and kinematics during collective cell migration* – Biophysical Methods in Cell Biology. Elsevier (2015).
- [2] [Bruqués et al.](#) – *Forces driving epithelial wound healing* – Nature Physics (2014).
- [3] [Bazellieres et al.](#) – *Control of cell-cell forces and collective cell dynamics by the intercellular adhesion* – Nature Cell Biology (2015).

