
PhD position: multicolour single molecule dynamics of adhesion proteins involved in Nano-Mechanobiology

ICFO is offering a PhD position to a self-motivated candidate and curiosity-driven candidate who wishes to enhance his/her scientific career in the field of **Quantitative Cell Biology and Mechanobiology** applying novel biophysical approaches based on multi-colour single-molecule imaging & dynamics.

Candidates with a strong background in experimental physics, biophysics, or biology with a strong interest in the bourgeois field of Nano-Mechanobiology are invited to apply. The candidate will work on a collaborative project investigating the nanoscale organization and dynamics of multi-molecular adhesion proteins in living cells with cutting-edge microscopy approaches.

The successful candidate will work at ICFO under the supervision of **Prof. Dr. Maria Garcia-Parajo** as part of the **Single Molecule Biophotonics (SMB)** research group. The SMB group focuses on development of advanced optical techniques to the study of biological processes on living cells at the nanoscale.

Project description:

The project aims at the application of multi-colour single molecule imaging approaches to investigate the dynamic nano-architecture of adhesion complexes involved on mechanosensing and mechanotransduction at the nanoscale in living cells. These cutting-edge approaches will be combined with simultaneous mechanical stimulation of cells aiming at quantifying the role of mechanical forces on membrane tension and dynamic-remodelling of adhesion nanoclusters on living cells. The project will be carried out in collaboration with worldwide leading groups in cell biology and biophysics, offering the successful candidate the opportunity to benefit by a multidisciplinary and international environment.

Eligibility criteria:

- Candidates should have a background in biophysics, biology, biotechnology or experimental physics
- Positively valued will be experience in advanced fluorescence microscopy, single molecule biophysics and data & image analysis (ImageJ, Matlab, Python etc...).

Contact details/applications:

In case of interest, applications should be submitted through our Jobs Opening site <https://jobs.icfo.eu/>. You may contact as well **Prof. Dr. Maria Garcia-Parajo** (maria.garcia-parajo@icfo.eu).