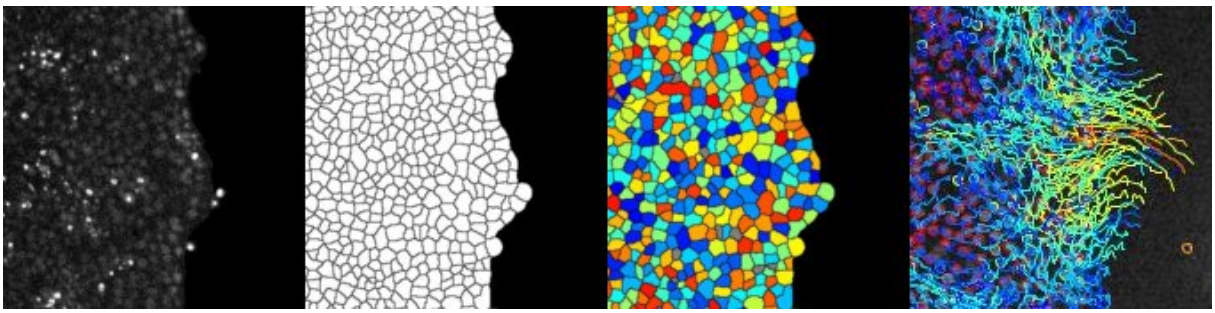
www.ijm.fr/en/860/equipes/mecanotransduction.htm

Two postdoctoral positions in Epithelial mechanotransduction



The “Mechanotransduction: from Cell Surface to Nucleus” team led by Nicolas Borghi at the Institut Jacques Monod (UMR7592 CNRS/Université Paris Cité, Paris, France) is looking for applicants to fill two post-doctoral positions by the end of 2022.

A first position is available right now to investigate mechanotransduction at the cell cortex and to understand how the cortex of epithelial cells transmit mechanical forces form the molecular scale to the tissue scale and back, within the tissue.

A second position will be available by the end of 2022 to investigate how epithelial cells mechanically coordinate their nuclei throughout the tissue and the subsequent impact on nuclear functions.

The projects will make use of a wide range of techniques including advanced live-cell imaging (FRET, FLIM, FCS), genetically encoded biosensors and cell and tissue micromanipulation approaches. They will involve collaborations with other teams at the IJM and from other research institutes in Paris.

The Institut Jacques Monod (IJM), which is housed in a building of 1800 square meters, located on the new campus of the Paris left bank urban project, is one of the main centers of fundamental research in biology in Paris, and offers a multidisciplinary research environment. The IJM brings together thirty research groups working on cell and developmental biology, biophysics and genomics. Successful applicants will benefit from an extremely stimulating scientific environment, and will have access to state-of-the-art core facilities (live-cell imaging, electronic imaging and flow cytometry), located at the IJM.

Applicants should have a PhD (or have it completed before the start of the position), in biology or in soft matter physics with a strong interest in biology. They must be able to work autonomously and have teamwork skills. Previous research experience in an interdisciplinary environment is a plus. Applicants should send a CV and a letter of motivation summarizing their scientific interests, as well as the contact information of two scientists who could provide recommendations to: nicolas.borghi@ijm.fr.