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Postdoctoral position in the team « Mechanotransduction: from cell surface to nucleus »

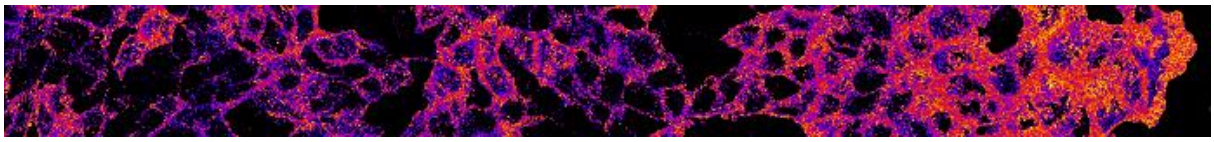
In multicellular organisms, cells generate and experience mechanical forces that are propagated throughout the organism. Ultimately, these forces may shape tissues and organs, and regulate genetic programs by activating transcription factors. The molecular mechanisms of mechanical force transmission and transduction into biochemical signals within and between cells are, however, poorly understood.

Our project focuses on the study of the macromolecular complexes that transmit and transduce mechanical cues within and between cells, and the cell functions that are affected by these cues. Specifically, we are interested in understanding the molecular mechanisms that underlie mechanotransduction through plasma membrane adhesion receptors and transmembrane complexes of the nuclear envelope, and their relationship with cell adhesion, migration, proliferation, and transcriptional activity.

To address this goal, we apply and develop genetically encoded biosensors and advanced microscopy and micromanipulation methods to dynamically and quantitatively control and monitor the behavior of protein complexes and cells in a wide range of time- and length-scales in cell culture model systems.

We are now taking applications for a postdoctoral position that will be fully covered for 2 years by an ANR grant. Prior experience in cell biology or biophysics is a plus but any outstanding application will be considered. The position will remain open until filled.

To apply, please send your CV, a cover letter stating your motivation and contact details of three recommenders to Nicolas Borghi (nicolas.borghi@ijm.fr).



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