Opening position at **Université Paris-Cité**

24-month POST-DOCTORAL FELLOWSHIP

Research

We are pleased to announce the opening of a postdoc position in the Matière et Systèmes Complexes laboratory at Université Paris Cité, starting January 2025. The project's goal is to develop sensitive, high-resolution optical techniques based on holography to measure the rheological properties of living cells and tissues, with a focus on mechanobiology applications. There is a pressing need to accurately map intracellular viscosity and elasticity in 3D tissues and to track how these properties evolve throughout the cell life cycle and in different pathologies. Recent research suggests that mechanical heterogeneities and rheological properties in multicellular tumor aggregates play a crucial role in the dynamics of tumor invasion, highlighting the importance of this work.

Context

The post-doctoral position is funded from the Agence Nationale de la Recherche in France for 24 months. The work will be performed at the Université Paris-Cité at the Laboratoire Matière et Systèmes Complexes (MSC) laboratory*. The postdoc will have the opportunity to work in a consortium including the Institut de la Vision (with Gilles Tessier and Robert Kuszelewicz) and the Institut Jacques Monod (with René-Marc Mège and Benoit Ladoux), both located in Paris. The postdoctoral work will focus on improving the synthesis of magnetic probes used for holographic detection, and for distribution to other consortium members. The postdoc will also work on the application of the optical techniques developed to rheological measurements on multicellular tissues in the context of tumor cells. Motivated candidates should have strong background in soft condensed matter, as well as in cell and tissue biomechanics. The candidate must have good writing and communication skills, be able to work independently and coordinate with other researchers in the group/consortium.

If you are interested in this position, please contact Dr. Myriam Reffay (myriam.reffay@u-paris.fr) and Dr. Jean-François Berret (jean-francois.berret@u-paris.fr). You can also visit the MSC lab website https://msc.u-paris.fr/.

Please send applications to the above email addresses, including a CV with the names and contact information of two referees. A motivation letter is also required.

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