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Postdoctoral Fellowships



CALL FOR APPLICATIONS 2025 – FELLOWS

Supervisor	Cécile Sykes
Supervisor page	http://www.lpens.ens.psl.eu/laboratoire/annuaire/?id=926
Host Institution	Centre National de la Recherche Scientifique (CNRS) https://www.cnrs.fr/en
Research Lab	Laboratoire de Physique de l'École Normale Supérieure https://www.lpens.ens.psl.eu/
Research Team	Matière Cellulaire Active https://www.lpens.ens.psl.eu/recherche/biophys/equipe-19/

Project Title

Inferring cell nucleus translocation through a Langevin equation analysis

Project Description

This project aims at elucidating how forces are orchestrated during confined cell motility. Microfluidic experimental devices will mimic the physiological situations of cells and their nuclei moving through narrow spaces in the body. The equation of motion of nuclei will be derived using a Langevin equation approach through observables of nuclear shape and molecular assemblies. This approach aims at deciphering which part of nuclear molecular self-organisation is active or passive.

Keywords

physics of living systems, Langevin equation, cell motility

Description of the Host Research Lab

The Laboratoire de Physique de l'École Normale Supérieure is an interdisciplinary fundamental research laboratory in physics and its interfaces. The laboratory's scientific activities cover a vast exploratory field in fundamental or applied physics, experimental or theoretical, and are organized into six axes: Astrophysics, Biophysics, Fluids and Interfaces, Fundamental Interactions, Quantum Materials and Devices, Statistical Physics.

To submit your application, please send an email with the required documents to
msca-pf@sorbonne-universite.fr