



**MSCA**

Marie Skłodowska-Curie Actions

*Developing talents,  
advancing research*

## Postdoctoral Fellowships



### CALL FOR APPLICATIONS 2025 – FELLOWS

<b>Supervisor</b>	Cécile Sykes
<b>Supervisor page</b>	<a href="https://scholar.google.fr/citations?user=reHPc-UAAAAJ&amp;hl=en">https://scholar.google.fr/citations?user=reHPc-UAAAAJ&amp;hl=en</a>
<b>Host Institution</b>	Centre National de la Recherche Scientifique (CNRS) <a href="https://www.cnrs.fr/en">https://www.cnrs.fr/en</a>
<b>Research Lab</b>	Laboratoire de Physique de l'École Normale Supérieure <a href="https://www.lpens.ens.psl.eu/">https://www.lpens.ens.psl.eu/</a>
<b>Research Team</b>	Matière Cellulaire Active <a href="https://www.lpens.ens.psl.eu/recherche/biophys/equipe-19/">https://www.lpens.ens.psl.eu/recherche/biophys/equipe-19/</a>

#### 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  
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