

Postdoctoral Fellowships

Marie Skłodowska-Curie Actions Developing talents, advancing research



CALL FOR APPLICATIONS 2025 - FELLOWS

Supervisor Martine Ben Amar

Supervisor page https://martinebenamar.fr/

Host Institution Sorbonne Université

https://www.sorbonne-universite.fr/en

Research Lab Laboratoire de Physique de l'Ecole Normale Supérieure

https://www.lpens.ens.psl.eu/

Research Team Theoretical neuroscience and biophysics

https://www.lpens.ens.psl.eu/research/biophys/equipe-10/?lang=en

Project Title

Patterning regeneration mechanisms after a wound.

Project Description

Some animal species show an amazing ability to regenerate an amputated body, such as hydra polyps, jellyfish and even fish. Recently, this topic has attracted a lot of attention from biologists to understand how these species can regain their geometry. This is the case of Ephyra Aurelia and the zebrafish fin. The aim of the project is a biophysical/biomechanical modelling, including growth, actomyosin and smooth or striated muscle activity, to elaborate a strategy to restore a living being.

Keywords

biomechanical and biophysical model, active matter modelling, tissue regeneration

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.