

**Postdoctoral Fellowships** 

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## **CALL FOR APPLICATIONS 2025 – FELLOWS**

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Host Institution	Sorbonne Université https://www.sorbonne-universite.fr/en
Research Lab	Laboratoire de Physique de l'Ecole Normale Supérieure <u>https://www.lpens.ens.psl.eu/</u>
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.