

# **Postdoctoral Fellowships**

Marie Skłodowska-Curie Actions Developing talents, advancing research



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

**Supervisor** Nicolas Biais

Supervisor page <a href="https://www.labojeanperrin.fr/?nbiais">https://www.labojeanperrin.fr/?nbiais</a>

Host Institution Sorbonne Université

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

Research Lab Laboratoire Jean Perrin

https://www.labojeanperrin.fr/?lang=en

Research Team Micro-organisms biophysics

https://www.labojeanperrin.fr/?article7

## **Project Title**

Mechanobiology of Bacterial Aggregates.

# **Project Description**

This project explores how physical forces influence early formation of the bacterial communities known to shape the world as we know it, the bacterial biofilms . By studying both pathogenic and commensal species, the candidate will use molecular biology, genetics, biophysics, and live microscopy to investigate the impact of mechanical cues in bacterial physiology. Understanding these interactions could lead to new strategies for controlling bacterial spread and combating antibiotic resistance.

## **Keywords**

biofilms, antiobiotic resistance, type IV pili

#### **Description of the Host Research Lab**

LJP research activities consist in Physics at the interface of with Biology and Medicine. We develop new experimental approaches to probe complex biological systems at different scales, and we develop bioinspired systems to develop new concepts or to improve our understanding of given biological mechanisms. A large part of our research aims at exploring the response of a biological system to external perturbations. Finally, the LJP includes a theoretical component closely interacting with experimenters.