

# **Postdoctoral Fellowships**

Marie Skłodowska-Curie Actions Developing talents, advancing research



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

**Supervisor** Jacques Fattacioli

Supervisor page <a href="https://scholar.google.com/citations?user=uArkO5kAAAAJ&hl=en">https://scholar.google.com/citations?user=uArkO5kAAAAJ&hl=en</a>

Host Institution Sorbonne Université

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

Research Lab PASTEUR Laboratory

https://www.chimie.ens.fr/recherche/laboratoire-pasteur/

Research Team NanoBiosciences and MicroSystems

https://www.chimie.ens.fr/recherche/laboratoire-pasteur/nbms/

## **Project Title**

MULTI KINGDOM SCREENING OF OIL-EATING MICROORGANISMS

## **Project Description**

This project explores oil-degrading microorganisms for applications in food systems, gastrointestinal health, and sustainability. By identifying and characterizing bacteria and yeasts like Yarrowia lipolytica and Alcanivorax, we analyze their lipid metabolism using advanced techniques such as confocal microscopy, microfluidics, and RNA sequencing. This interdisciplinary approach aims to enhance microbial applications, supporting sustainable food processing and industrial innovation.

## **Keywords**

microbiology, biophysics, microfluidics

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

The PASTEUR Laboratory (Processus d'Activation Sélectif par Transfert d'Energie Uni-électronique ou Radiative) is a joint CNRS-ENS-SU research unit set up in 2000. Its research activity is centred on a physico-chemical approach to chemical reactivity, with the aim to understand and probe molecular mechanisms in order to develop original systems that exploit these functionalities. To achieve this, the laboratory draws on a wide range of skills in electrochemistry, photochemistry, microfluidics and biological techniques, as well as on theory and simulations. Applications cover a wide range of fields, from materials to in situ interrogation of living systems.