

# **Postdoctoral Fellowships**

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

**Supervisor** Christophe Helary

Supervisor page <a href="https://lcmcp.science/christophe-helary-en/">https://lcmcp.science/christophe-helary-en/</a>

Host Institution Sorbonne Université

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

Research Lab Laboratoire de Chimie de la Matière Condensée de Paris

https://lcmcp.science/

Research Team Materials and Biology

https://lcmcp.science/matbio-en/

## **Project Title**

Macroporous dense collagen/polyester hydrogels as novel implantable biomaterials to deliver antiinflammatory molecules and promote skin wound healing

## **Project Description**

This project focuses on developing an innovative medicated wound dressing to modulate inflammation and promote the healing of chronic cutaneous wounds. This biomaterial will integrate a collagen-based hydrogel with a drug delivery system utilizing the nanoprecipitation of biocompatible polyesters. The controlled release of anti-inflammatory drugs will promote tissue repair. Additionally, a second hydrogel layer, composed of alginate and ZIF-8 nanoparticles, will be designed to combat infections

## **Keywords**

wound dressing, collagen hydrogel, drug delivery

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

The LCMCP is a well-known figure in the development of inorganic or organic-inorganic hybrid functional materials, and in the evaluation of their physico-chemical properties at different scales. These materials target applications with high societal impact, particularly in the fields of energy, health and the environment.

To submit your application, please send an email with the required documents to  $\underline{\text{msca-pf@sorbonne-universite.fr}}$