



Opening position at **Université Paris-Cité**

18-month POST-DOCTORAL FELLOWSHIP

Research

The MucOnChip project, funded by the Agence Nationale de la Recherche (ANR), is dedicated to advancing our understanding of mucociliary clearance for the treatment of inflammatory lung diseases. Our primary goal is to design and assess a microfluidic device that faithfully replicates the clearance mechanisms within the bronchial region of the human lung. This innovative device comprises soft elastomer micropillars, remotely actuated to mimic the motion of cilia. As a next step, this technology will play a crucial role in screening new drug nanocarriers for the treatment of inflammatory lung conditions, including chronic obstructive pulmonary disease and the later stages of COVID-19 infection.

Context

This postdoctoral position, sponsored by the Agence Nationale de la Recherche, is available for an 18-month term, starting in January 2024. The research will be conducted at the Laboratoire Matière et Systèmes Complexes (MSC) at Université Paris-Cité*. The MucOnChip project is a collaborative effort involving Professor Sandra Lerouge from the MSC laboratory, as well as the research groups of Dr. Jérôme Fresnais at Sorbonne University and Dr. Nicolas Tsapis at Institut Galien Paris-Saclay. In this postdoctoral role, we will primarily focus on investigating the structure and rheological properties of mucus, particularly in its interaction with drug particles. We are looking for candidates with a strong background in soft condensed matter, microfluidics, and/or the hydrodynamics of viscoelastic materials, as well as a genuine interest for pulmonary biophysics. The ideal candidate will possess excellent writing and communication skills, the ability to work independently, and a talent for collaborating with fellow researchers in our group. We hope to welcome a highly motivated and talented individual who shares our passion for pioneering research and making a meaningful impact in the field of pulmonary science.

If you are interested in this position, please contact Dr. Jean-François Berret (jean-francois.berret@u-paris.fr) and Prof. Sandra Lerouge (sandra.lerouge@u-paris.fr). You can also visit the website: <https://www.jean-francois-berret-website-pro.fr> for more information.

Please forward your application to the provided email addresses. Include your CV, with the names and contact details of two referees. We kindly request a motivation letter as part of your application.

***Université Paris-Cité**

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