

PhD student position in vascular biology and mitochondrial metabolism

Location: UMR1011, Institut Pasteur de Lille, France

We are seeking a highly motivated PhD student to join our research team at UMR1011 - Institut Pasteur de Lille - University of Lille. Our research focuses on unraveling the metabolic and signaling pathways that drive endothelial cell dysfunction in cardiovascular diseases. To know more visit: <https://u1011.univ-lille.fr/en/>

Project Overview

Mitochondria are central to cellular metabolism and signaling, playing a key role in vascular homeostasis. CHCHD4 is a mitochondrial intermembrane space protein with emerging roles in redox regulation and cellular stress responses. However, its specific contribution to endothelial function and associated disease remains poorly understood.

This PhD project aims to:

- Decipher the molecular mechanisms by which CHCHD4 regulates endothelial cell function, focusing on metabolic adaptations, oxidative stress, and mitochondrial dynamics.
- Employ state-of-the-art technologies such as multi-omics approaches (proteomics, transcriptomics, metabolomics), live-cell imaging, and transgenic *in vivo* models to explore CHCHD4-dependent pathways.
- Investigate the impact of CHCHD4 alterations in vascular diseases, including atherosclerosis.

What We Offer

- A 3-year fully funded PhD position within a prestigious research institute with access to cutting-edge technologies.
- A highly collaborative and stimulating research environment, with opportunities to interact with leading experts in metabolism and cardiovascular research.
- Training in advanced experimental techniques and scientific writing, with opportunities to present at international conferences.
- The chance to be part of an interdisciplinary and international team, with potential collaborations across Europe.

Candidate Profile

We are looking for a **curious**, **dedicated**, and **ambitious candidate** who is passionate about endothelial cell biology and mitochondrial research.

Required qualifications:

- Master's degree (or equivalent) in **biomedical sciences, molecular biology, cellular biology** or a **related field** with a ranking of at least 12/20.
- **Strong interest in vascular biology, metabolism, and mitochondrial function.**
- Experience in basic molecular and cellular biology techniques (qPCR, Western blotting, cell culture, immunofluorescence, etc.).
- Excellent analytical skills, independence, and problem-solving ability.
- Excellent communication skills in spoken and written English.



Desirable skills (not mandatory but a plus):

- Experience with gene editing, metabolic assays or live-cell imaging.
- Familiarity with bioinformatics tools.

How to Apply

If you are excited about this opportunity, please send your **CV**, **cover letter**, and contact details of at least **two referees** to: anna-rita.cantelmo@univ-lille.fr and louay.bettaieb@inserm.fr



Application deadline: Applications will be reviewed on a rolling basis until the position is filled. Early applications are encouraged!