Unit 1011: Nuclear Receptors, Cardiovascular Diseases and Diabetes

Prof. Bart STAELS

Post-doctoral position in INSERM UMR1011 in Lille, France

Project: "Liver-induced Immune-mediated regulation of Cardiac Remodeling"

Project overview: We are seeking a motivated post-doctoral fellow to participate in a terrific project combining systems biology approaches, state-of-the-art molecular technologies, original preclinical models and human translational studies to: 1. Define the role of Metabolic dysfunction-Associated SteatoHepatitis (MASH) in cardiac remodeling in mice; 2. Characterize the immune cell alterations in MASH-induced cardiac remodeling; 3. Determine the functional role of identified immune cells in cardiac remodeling; 4. Translate our findings to the human pathology by analyzing the impact of MASH on heart failure.
The post-doctoral fellow will be in charge of performing experiments on mouse models and analyzing cardiac, metabolic and molecular parameters using state-of-the-art techniques.
The project will be performed in UMR1011, an research unit affiliated to the laboratory of excellence-labeled European Genomic Institute of Diabetes (EGID), INSERM, Institut Pasteur de Lille, CHU de Lille and Lille University. The unit develops interdisciplinary research at the interface of physiology, cell biology, biochemistry and medicine, hosts state-of-the art scientific technological platforms and attracts students from around the world by offering high level training in biomedical sciences.

We offer a (renewable) 1 year contract starting between September and December 2025 depending on the availability of the candidate. This position is supported funds from the French National Research Agency (ANR). Remuneration and social benefits will be based on the salary scale for public-sector employees considering past experience (available here). The applicant will integrate a multidisciplinary group including basic scientists, clinicians and bioinformaticians, and participate in international collaborations.

Requirements. Applicants should hold a PhD in any biological science as well as an EU FELASA C authorization. Authorization for experimental surgery would be a major asset. Excellent written and spoken English are also important. A background in cardiology, metabolism or physiology would be highly appreciated.

Responsibilities will include:
- Performing experimental cardiology experiments in mice (aortic banding and debanding);
- Molecular and biochemical analysis of cells and tissues of genetically modified mice;
- Bioinformatic/statistical analyses;
- Preparation of scientific articles and presentation at local and international meetings.

Application procedure. Candidates should send a CV with a publication list, a short summary of research achievements and mastered techniques, and contact information of at least two references, to: Bart Staels (bart.staels@pasteur-lille.fr) or David Dombrowicz (david.dombrowicz@inserm.fr)

Selected publications of the hosting team:

1-Ninni S[$], Dombrowicz D[$], Kuznetsova T, …, Geissmann F, Staels B*, Montaigne D*: **Hematopoietic somatic mosaicism is associated with an increased risk of postoperative atrial fibrillation**. *JACC,2023,81,1263-1278* (*co-senior authors; [$]co-first authors) (with editorial)

2-Montaigne D, Maréchal X, Modine T, …., Eeckhoute J, …., Edmé JL, Lefebvre P, Staels B: **Daytime variation of perioperative myocardial injury in cardiac surgery and its prevention by Rev-erb-α antagonism: a single-centre propensity-matched cohort and a randomised study**. *The Lancet 2018;391,59-69* (WoS "Hot Paper")

3- Paumelle R, Haas JT, Hennuyer N, …., Guillou H, Dombrowicz D, Staels B: **Hepatic PPARα is critical in the metabolic adaptation to sepsis**. *J.Hepatol., 2019;70, 963-973*

4-Haas JT, Vonghia L, Mogilenko DA, …., Staels B*, Francque S*, Dombrowicz D*: **Transcriptional network analysis implicates altered hepatic immune function in NASH development and resolution**. *Nature Metab., 2019;1,604-614* (* co-senior authors)

5-Mogilenko DA, Haas JT, Lhomme L, …., Aksoy E, Staels B, Dombrowicz D: **Metabolic and innate immune cues merge into a specific inflammatory response via the UPR**. *Cell, 2019;177,1201-1216* (with editorial)