









## Post-doctoral position in INSERM UMR1011 in Lille, France Project Fat10MaSH: "FAT10 as a new driver of hepatocyte suffering and resistance to PPAR $\alpha$ agonist therapy during MASH severity"

**Project overview:** We are seeking a highly motivated postdoctoral fellow to participate in an original project combining systems biology approaches, state-of-the-art molecular technologies, preclinical models and human translational studies to decipher the role of the ubiquitin-like modifier FAT10 in hepatocyte injury and Mallory-Denk body (MDB) formation during metabolic-associated steatohepatitis (MASH), and its interplay with PPARα signaling.

The postdoctoral researcher will be in charge of performing experiments on cellular and mouse MASH models and analyzing molecular signature of hepatocyte injury associated to FAT10 and PPAR $\alpha$  signaling using state-of-the-art techniques (OMICS data analysis).

The project will be performed in UMR1011, a 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 January and March 2026 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 have a PhD in any biological science with experience in animal experimentation. Excellent written and spoken English are also important. A background in physiology, liver metabolism and/or OMICS data analysis would be highly appreciated.

## Your responsibilities will include:

- 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**

Please send your CV, a cover letter, and contact information for two referees to Bart Staels (<u>bart.staels@pasteur-lille.fr</u>) and Réjane Paumelle (<u>rejane.lestrelin@univ-lille.fr</u>).

## Selected publications of the team:

- Clavreul L, Bernard L, .....<u>Staels B</u>, <u>Paumelle R</u>. The ubiquitin-like modifier FAT10 is induced in MASLD and impairs the lipid-regulatory activity of PPARa. Metabolism. 2024 Feb:151:155720.
- <u>Staels B</u>, Butruille L, Francque S. Treating NASH by targeting peroxisome proliferator-activated receptors. J Hepatol. 2023 79:1302–1316. https://doi.org/10.1016/j.jhep.2023.07.004
- <u>Paumelle R</u>, Haas JT, Hennuyer N, ...., Guillou H, Dombrowicz D, <u>Staels B</u>: Hepatic PPARα is critical in the metabolic adaptation to sepsis. J.Hepatol., 2019;70, 963-973
- Francque S, Verrijken A, Caron S, Prawitt J, <u>Paumelle R</u>, ....., <u>Staels B.</u> PPARα gene expression correlates with severity and histological treatment response in patients with non-alcoholic steatohepatitis. J Hepatol, 2015. 63:164–173. https://doi.org/10.1016/j.jhep.2015.02.019