

## **JOB DESCRIPTION**

The Centre de Recherche Saint-Antoine (CRSA) at Sorbonne Université is offering a post-doctoral position in the Department of Metabolism & Inflammation.

- The applicant will be working in the laboratory of **Jérémié Gautheron** on experimental introduction of necroptosis inhibitors into the field of organ transplantation.
- **Background research topic:** Liver transplantation represents the only therapeutic option for patients with end-stage liver disease. Steatotic liver grafts are increasingly proposed, but the presence of steatosis in more than 30% of hepatocytes is a major cause of immediate liver graft dysfunction. Among different mechanisms, steatosis promotes ischemia reperfusion injury (IRI), which compromises the success of liver transplantation. Necroptosis, a novel regulated form of cell death, contributes to IRI. Our team also identified a necroptotic-independent function of the executor of necroptosis, MLKL, in regulating metabolism. We will use necroptosis inhibitors to block IRI and to deplete fat during preservation of the liver grafts. The experimental approaches will combine various study models (*e.g.*, patients-derived liver graft samples, murine models, CRISPR/Cas9-edited cells). This project is supported by Agence Nationale de la Recherche (ANR) and is a high-level collaborative project with a team of transplant surgeons in our University Hospital.
- **The main objectives** are (i) to better characterize the necroptotic-independent function of MLKL in metabolism with the use of cellular and rodent models; and (ii) to rescue fatty liver grafts by depleting them in fat, restoring their metabolic function and protecting them from ischemic injury during perfusion.
- Next to experimental research, the applicant will write project reports on a regular basis, scientific manuscripts and will participate in grant writing.

### **Profile and requirements**

- The candidate should hold a doctorate degree (PhD) in Cell Biology, Biochemistry, Molecular Biology, Immunology, or Physiology.

- Prior hands-on experience with cell culture and molecular biology technologies is required.
- Expertise in metabolism and/or ischemia reperfusion injury/cell death would be an asset.
- The applicant will collaborate with PhD students and technicians to increase the impact of the research efforts.

### **Key personal characteristics**

- The applicant should be highly motivated and passionate in driving and performing research and associated laboratory tasks and should be able to work independently.
- Excellent skills in writing, communication, collaboration with other staff in the unit and other units.

### **We offer**

- A postdoctoral research position for a period of two years, with a possibility of renewal for an additional year.
- Approximate date of appointment: January 1st, 2022.
- Salary is calculated according to the pay scale for contractual researcher at INSERM.
- The applicant will benefit from multidisciplinary and highly stimulating and supporting international research environment.
- He/she will have access to state-of-the-art tools and infrastructure.
- Various training opportunities are organized at CRSA to broaden young scientists' expertise and skills.
- A high degree of freedom and strong discussion culture.

### **How to apply?**

- Please send a detailed CV, a motivation letter describing your interests, and contact details of 2 referees to: [jeremie.gautheron@inserm.fr](mailto:jeremie.gautheron@inserm.fr) - no later than October 31.
- Interviews of selected candidates will take place the first week of November (exact date will be communicated).