The Laboratory of Cellular and Molecular Immunology is seeking for a Post Doctoral fellow to join the team of Thomas Marichal, studying the biology of lung myeloid cells in the context of mucosal homeostasis and allergic diseases.

**The GIGA institute**

Established in 2007 at the University of Liege, Belgium, GIGA is an interdisciplinary research center in biomedical sciences whose mission is advanced medical innovation. The institute encompasses more than 500 members with expertise in medical genomics, in silico medicine, neuroscience, cancer, infection and immunity, and cardiovascular sciences. GIGA offers state-of-the-art technological platforms (Imaging/Flow cytometry, Animal facilities, Geno-transcriptomics, Bioinformatics, etc) and an extraordinary range of services on the same site, where researchers, clinical doctors, doctoral students, students and private sector actors meet.

**The Laboratory of Cellular and Molecular Immunology (LCMI)**

The LCMI focuses mainly on the cellular and molecular mechanisms at the interface between innate and adaptive immunity that underlie lung immune homeostasis, allergy development or protective immunity, using animal models of health and disease. The lab is composed of 4 PIs and 18 members with varied professional experience (biologists, veterinarians, pharmacists), creating a young, dynamic and international research environment. The candidate will join the team of Thomas Marichal on a project focusing on lung interstitial macrophages, a cell population that is crucial for lung homeostasis.

**The Project**

Entitled "High resolution molecular mapping of lung interstitial macrophage (IM) and study of the influence of nerve-derived signals in imprinting their identity and homeostatic functions", the project will use groundbreaking single cell technologies combined with novel transgenic tools that selectively target IM in order to achieve the following aims: (1) define IM identity and the specific transcriptional programs governing their differentiation, phenotype and function; (2) investigate how such identity is imprinted by nerve-derived signals to fulfill the functional needs of the lung.

**Main duties and responsibilities**

The candidate will first be in charge of characterizing newly generated transgenic animals in which interstitial macrophage (IM) can be targeted and depleted by a diphtheria toxin receptor-mediated approach. He/she will then use these tools in combination with unbiased single-cell RNA seq technologies to dissect the intrinsic transcriptional programs that govern their differentiation and function and to decipher the mechanisms by which IM are imprinted by nerve-derived signals. This project requires a strong expertise in cellular and molecular immunology and particularly in work with mouse models, flow cytometry, FACS, confocal microscopy and cell culture. Experience with R bioconductor and analysis of (single cell) RNA Seq data would be considered as a plus.

The candidate must be highly motivated, dynamic, proactive and team-oriented and must have excellent communication and multi-tasking skills.

**Offer**

Financial support is available for a post-doctoral position during 2 years, starting on 1st of March, 2018. The candidate may not have obtained his/her PhD graduate for more than 8 years and must be in situation of international mobility, i.e. may not have resided, studied or worked in Belgium during more than 24 months during the last 3 years preceding the initiation of the grant. The successful candidate will be encouraged and will receive support to obtain an independent fellowship during this time.

**How to apply?**

Please send your detailed CV (including grades and class ranking), a full publication list, a motivation letter and names and contact of 3 referees to t.marichal@uliege.be.


**Recent PI's publications**


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