Post-Doctoral Researcher Position in Immunology, Paris, France

Open position
2 years postdoctoral fellowship (starting January 2022), funded by the French National Research Agency (ANR)
Date posted : February 2022

Project
Deciphering a genetic control of Human Thymopoiesis at the *TCRA/D* Locus (Hu-Thy-L).

Location and context
The project will be developped at INSERM U.1160, Université de Paris, Institut de Recherche Saint-Louis (IRSL), Hôpital Saint-Louis, Paris, France (irsl.u-paris.fr).
IRSL is a leading research center in Hematology, Immunology and Oncology. It includes 12 academic research units (100 full-time researchers). Technological platforms are fully equipped in Genomics (10X, Biomark), spectral flow cytometry (AURORA), imaging and animal facility. It is located in the center of Paris, close to the “Canal Saint-Martin”, a lively and trendy area.

Laboratory
The team (A. Toubert group) has a long-standing interest in T-cell repertoire and thymic function analysis in human immunology and immunopathology, developing T cell Receptor Excision Circles (TRECs) quantification as surrogate markers of thymic function.
Team website : https://irsl.u-paris.fr/umrs-1160-ecotaxie-micro-environnement-et-developpement-lymphocytaire
The laboratory is a partner of the The *Milieu Intérieur* Consortium.
(http://www.milieuinterieur.fr/en/)

Research area and job description
We have shown in a population immunology approach with genome-wide association studies in 2 independent cohorts that age, gender and a single-nucleotide polymorphism (SNP) within the *TCRA/D* region (rs2204985 A/G) can influence the level of thymopoiesis. This translates in about 40% increase in thymopoiesis estimated by TRECs amounts in GG *vs*. AA homozygotes (Clave *et al*., *Sci. Transl. Med.* **10**, eaao2966 (2018)).
link :http://stm.sciencemag.org/content/10/457/eaao2966
The project aims to unravel how this genetic variation impacts on chromatin accessibility, epigenetic modifications and/or transcription factors binding, leading to differences in thymocyte differentiation. The understanding of a “fine tuning” of thymopoiesis may improve our basic knowledge of human T cell development with a broad impact in the setting of immune responses and vaccines. It could also provide an insight into the mechanisms of oncogenic translocation in T acute lymphocytic leukemias.
The ANR grant Hu-Thy-L (2021-2023) secures the budget to run the project. There will be close interactions with other project partners (V. Asnafi *et al*. U1151 Hôpital Necker, S. Spicuglia *et a*l. U.1090 Marseille and J. Di Santo *et al*., U1223 I. Pasteur).

Qualifications
Candidates will have a PhD in Immunology with at least one first-author publication. We seek a highly motivated candidate able to quickly develop projects in interaction with the group leader and collaborators. Skills in single-cell and -omics analysis would be appreciated.

To apply : send CV, list of publications and 2 letters of reference as a single pdf file to antoine.toubert@u-paris.fr and to emmanuel.clave@u-paris.fr. Selected candidates will be contacted for an on-site or video interview.