

Open position: Post-doctoral fellow

“Origin and function of B cell zone reticular cells”

Duration: 3 years, starting January 1, 2027 (full time position)

Under the supervision of Dr. Christopher G. Mueller

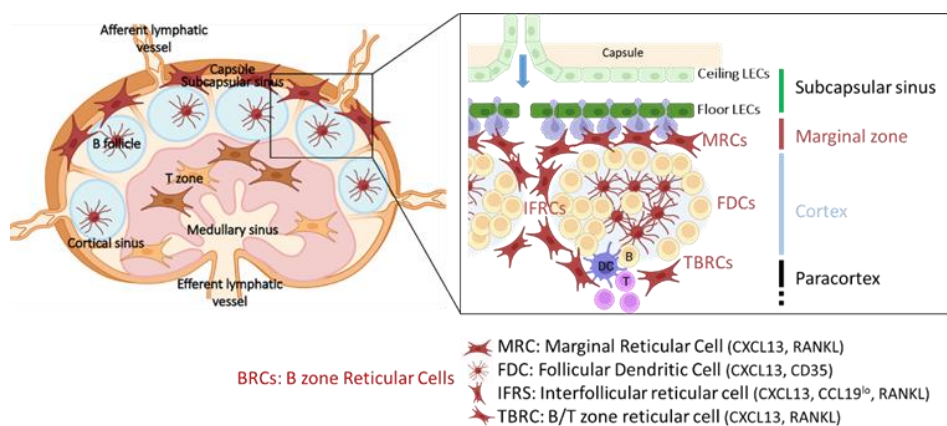
Location: Institut de Recherche Saint-Louis, 75010 Paris (team 9, directed by Dr. Karl Balabanian)

Collaboration with Dr. Eric Camerer, INSERM U970/PARCC, 75015 Paris

Funded by the ANR.

Introduction: Lymphoid tissue comprises mesenchymal (reticular) cells that organize the hematopoietic cells into specific compartments and regulate the immune response. B zone reticular cells (BRCs) include the follicular dendritic cells (FDCs) within the center of the B cell follicle and the marginal zone (MRCs), the interfollicular (IFRCs) and the T/B zone reticular cells (TBRCs).

Although the different BRC subsets share common features, the cellular origin, differentiation and functions are distinct and remain incompletely understood.



Scientific questions: Using different genetically modified mouse models and in collaboration with INSERM U970/PARCC, we have found that a bioactive lipid is required for the differentiation of FDCs (manuscript in preparation). The project now aims to determine the identity of the receptor(s) involved, their cell-type specificity and the signaling pathway engaged. Secondly, using a newly generated mouse model to target the peripheral BRCs, we will question the role of these BRCs in the humoral immune response using mice genetically modified to ablate these cells. The findings will be translated to humans using primary lymphoid tissue and organoid cell culture models.

Technical/methodological aspects: The project involves mouse experimentation, flow cytometry, immuno-fluorescence and transcriptome data generation and analysis.

Environment: The institute provides state-of-the-art instrumentation platforms for flow cytometry, fluorescent microscopy and single cell library generation and an animal facility. The lab is staffed with 9 principal investigators, 6 research assistants and 9 doctoral candidates studying the molecular and cellular aspects of lymphoid cells with their environment in health and disease. The Institut de Recherche Saint-Louis (<https://irsl.fr/>) is located in the vibrant 10th arrondissement of Paris, close to the train stations Gare de l'Est and Gare de Nord. It hosts research labs in hematology, immunology and oncology with direct links to the clinics.

Required expertise: The successful candidate must master mouse experimentation, immuno-fluorescent labelling on tissue and cell suspension with the required analytical software. A big plus would be expertise in the R software for transcriptome analyses.

Post-doctoral fellows (max. 1-2 years post-PhD experience) are invited to apply. Contract will initially be for 1 year and can then be renewed.

If interested, please contact Christopher G. Mueller (c.mueller@ibmc-cnrs.unistra.fr) with CV and a letter of motivation.

DEADLINE July 31, 2026