

Postdoctoral position at the Centre d'Immunologie de Marseille Luminy (CIML), Marseille-France:

Deciphering Macrophage-Stromal cell crosstalk in lymphoid organs

A post-doctoral position is available to study the two-cell circuit established between macrophages (M ϕ) and stromal cells in lymphoid organs. The successful applicant will join the team of Marc Bajénoff at the CIML in Marseille. The position is funded for 2 years by the ANR.

Secondary lymphoid organs such as lymph nodes (LNs) are composed of leukocytes (~95%) and lymphoid stromal cells (~5%) that form the structural framework of these organs. Various specialized stromal cell subsets create dense three-dimensional (3D) cellular networks that control lymphocyte survival and migration, create the backbone of the LNs and provide the nutrients, soluble factors, and antigens to the various immune cells required for 'immunological surveillance' and the development of adaptive immune responses. Indeed, immune cells would not properly function or even survive without these stromal cell networks and a better understanding of their biology appears mandatory to our full comprehension of the immune system.

Generally, M ϕ are endowed with well-known immunological functions. Equally important, but often overlooked, are the roles of M ϕ in tissue development, homeostasis and repair through the regulation of non-hematopoietic stromal cells. These include functions in branching morphogenesis, neuronal patterning, angiogenesis, lymphangiogenesis, bone morphogenesis, adipogenesis, regeneration and fibrosis.

We hypothesize that LN M ϕ regulate the development, function and remodeling of lymphoid stromal cells and that in return, lymphoid stromal cells control the immunobiological properties of LN M ϕ .

Using a combination of imaging techniques and genetic mouse models, the postdoctoral fellow will explore the influence of lymphoid stromal cells on the development and homeostasis of M ϕ as well as the feedback signals provided by M ϕ to lymphoid stromal cells (two-cell circuit).

Qualification/Tasks:

- PhD in Immunology or developmental biology
- Research experience in Immunology, M ϕ or stromal cells supported by a good track record
- Expertise in mouse work, flow cytometry and confocal imaging
- Oral and written communication skills (English)

Candidates should submit their application, CV and cover letter to Marc. Bajénoff :

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