

2-3-year postdoctoral position in osteoimmunology in Nice, France



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Université
Nice SOPHIA ANTIPOLIS
Member of UNIVERSITÉ CÔTE D'AZUR

Host laboratory: The team "*Osteoimmunology, niches and inflammation*" in the Laboratory of Molecular PhysioMedicine, Nice, France (<http://unice.fr/lp2m/fr/les-equipes/osteoimmunologie-niche-inflammation-c-blin>) is depending on the CNRS, the main research body in France, and the University of Nice labeled as "University of Excellence". Located in the Faculty of Medicine in the heart of Nice, it provides a high-quality scientific environment with access to all required core facilities as well as interaction with clinicians.

Project:

The research activities of the team are focused on the cellular interactions between immune and non-immune cells in the bone marrow. Among these cells, osteoclasts are the bone-resorbing cells responsible for bone destruction in many chronic inflammatory diseases. We have recently shown that their function is not limited to bone resorption and that depending on their origin and environment, they induce immunosuppressive or inflammatory responses.

The post-doc will participate to the ORIOS project "*Origin and role of inflammatory osteoclasts, novel therapeutic targets in rheumatic diseases*" recently founded by the French National Research Agency (ANR). The objectives of this project are an in-depth characterization of inflammatory and tolerogenic osteoclasts in terms of their origin, function and specific markers to understand their contribution to inflammatory responses and to modifications of the bone marrow integrity. The project combines analysis in vitro, in vivo in murine models of chronic diseases associated with bone destruction and in patients. The aim is to identify new clues for diagnosis and therapeutic strategies as well as novel information on a neglected aspect of osteoclast biology.

Requirements:

We are seeking a highly motivated and talented post-doc with a strong background in osteoimmunology, immunology or bone biology, assessed by publications. She/ he must have a strong experience in cell biology, flow cytometry and animal experimentation. Ability to work independently, and excellent team, communication and organization skills are essential. French or English practice is mandatory. The salary is according to the rules of the French public service

and depends on the experience.

The position is founded for 2 years with a possibility to extend for 1 more year depending on the results. It represents an excellent opportunity for a young scientist to develop/extend expertise in osteoimmunology. In addition to an excellent scientific production, if independent thinking and capacity to undertake responsibility as project leader are proven, the postdoc will be supported to apply for a permanent position in the team.

To apply:

Applicants should submit (in French or in English) their CV and publication list, the name and e-mail of 3 references and a brief statement of past achievements and research interests to Dr Blin-Wakkach (blin@unice.fr). Deadline for application: no later than October 30, 2017.

Starting: January 2018.

Related publications from the team

1. Ibáñez L, et al. Inflammatory osteoclasts prime TNF α -producing CD4⁺ T cells and express CX3CR1. **J Bone Miner Res.** 2016 Oct;31(10):1899-1908.
2. Wakkach A et al. Osteoimmune interactions in inflammatory bowel disease: central role of bone marrow Th17 TNF α cells in osteoclastogenesis. **Frontiers in Immunology.** 2015. Dec 18;6:640.
3. Ciucci T, et al. Bone marrow Th17 TNF α cells induce osteoclast differentiation, and link bone destruction to IBD. **Gut.** 2015 Jul;64(7):1072-81
4. Blin-Wakkach C, et al. Roles of osteoclasts in the control of medullary hematopoietic niches. **Arch Biochem Biophys.** 2014 Nov 1;561C:29-37.
5. Mansour A, et al. Osteoclasts promote the formation of hematopoietic stem cell niches in the bone marrow. **J Exp Med.** 2012 Mar 12;209(3):537-49.
6. Mansour A, et al. Osteoclast activity modulates B-cell development in the bone marrow. **Cell Res.** 2011 Jul;21(7):1102-15.
7. Wakkach et al. Bone marrow microenvironment controls the in vivo differentiation of murine dendritic cells into osteoclasts. **Blood.** 2008 Dec 15;112(13):5074-83