



**Postdoctoral position available in the « pathogen/host cell interactions » team  
 at the Centre of Immunology of Marseille-Luminy (CIML).**

**Our team is seeking a postdoctoral research associate to investigate the  
 Role of Peyer's patch phagocytes in mucosal immunity and gut homeostasis**

**Project:** The initiation of the mucosal immune response in Peyer's patch (PP) relies on the sampling, processing and efficient presentation of foreign antigens by phagocytes to effector cells. The successful applicant will study the impact of immunomodulators and bacterial pathogen infection on mouse PP phagocyte stimulation and on the initiation of the mucosal immune response. He will study the interaction between the gut flora and PP phagocytes and see how it can modulate this response. Finally, when possible he will translate the results to humans. This work will have implications for mucosal vaccine targeting approaches and for the development of new strategies to dampen inflammation in inflammatory bowel diseases.

**Candidate qualification:** Applicants should have a PhD for less than 2 years with good skills in mucosal immunology and microbiology. Knowledge of bioinformatics would be appreciated. The project will require a wide variety of techniques including flow cytometry, scRNA-seq, microbiology, confocal microscopy and animal experimentation.

**Application:** Appointment starts from October 1, 2018. Interested candidates should send a CV with a cover letter and contact for two referees to Hugues Lelouard ([lelouard@ciml.univ-mrs.fr](mailto:lelouard@ciml.univ-mrs.fr)) and J.P Gorvel ([gorvel@ciml.univ-mrs.fr](mailto:gorvel@ciml.univ-mrs.fr)).

**Selected publications from the host lab:**

- 1- Wagner, C., Bonnardel, J., Da Silva, C., Martens, L., Gorvel, J.P., and Lelouard, H. (2018). Some news from the unknown soldier, the Peyer's patch macrophage. **Cell Immunol.** *In press*.
- 2-Da Silva, C., Wagner, C., Bonnardel, J., Gorvel, J. P., and Lelouard, H. (2017) The Peyer's Patch Mononuclear Phagocyte System at Steady State and during Infection. **Front. Immunol.** 8, 1254.
- 3-Bonnardel, J., Da Silva, C., Wagner, C., Bonifay, R., Chasson, L., Masse, M., Pollet, E., Dalod, M., Gorvel, J. P., and Lelouard, H. (2017) Distribution, location, and transcriptional profile of Peyer's patch conventional DC subsets at steady state and under TLR7 ligand stimulation. **Mucosal. Immunol.** 10, 1412-1430.
- 4-Bonnardel, J., Da Silva, C., Henri, S., Tamoutounour, S., Chasson, L., Montanana-Sanchis, F., Gorvel, J.P., and Lelouard, H. (2015) Innate and Adaptive Immune Functions of Peyer's Patch Monocyte-Derived Cells. **Cell reports** 11, 770-784.
- 5-Lelouard H., Fallet M., de Bovis B., Meresse S., Gorvel J.P. (2012) Peyer's Patch Dendritic Cells Sample Antigens by Extending Dendrites Through M Cell-Specific Transcellular Pores. **Gastroenterology**, 142: 592-601.