POSTDOCTORAL POSITION AT THE PASTEUR INSTITUTE

Clonotypic characterization of high avidity CD4+ T cells directed against HIV

We are studying immune responses in HIV Controllers, who are patients who spontaneously control HIV replication in the absence of antiretroviral therapy. Studying these rare patients provides the unique opportunity to understand how the immune system can mount an efficient response against HIV, and may help determine the type of immune responses that should be induced by candidate HIV vaccines. We have obtained evidence that HIV controllers harbor virus-specific memory CD4+ T cells with the capacity to rapidly proliferate and secrete IL-2. Importantly, these cells can recognize HIV Gag antigen with high avidity, indicating that HIV Controllers can mount a recall immune response against minute amounts of Gag antigen.

The project will be based on the molecular and functional characterization of the high avidity CD4+ T cell population in HIV Controllers. HIV-specific cells will be characterized by MHC class II tetramer binding and intracellular cytokine staining. A major objective will be to identify TCRs associated to a high avidity response against HIV Gag, and to evaluate the dynamics of these TCRs in vivo by clonotypic analysis.

Laboratory
The group of Lisa Chakrabarti is located within the Unité d'Immunogénétique Cellulaire headed by Jaques Thèze at the Pasteur Institute, Paris, France. We have access to state of the art technical platforms and core facilities (http://www.pasteur.fr).

Relevant publications
- Vingert B. et al. (2010) HIV Controllers CD4+ T cells respond to minimal amounts of Gag antigen due to high TCR avidity. PLoS Pathogens 6(2): e1000780

Qualifications
The candidate should have a PhD in the field of immunology or virology, with a strong experience in the analysis of T cell responses or TCR structure / function. Knowledge and practice in molecular biology and flow cytometry will be appreciated. Strong motivation, autonomy and ability to carry out collaborative work with other teams on site are essential.

Salary
1900-2000 € net/month according to experience, with full benefits (CDD contract paid by an ANRS grant). The postdoctoral position is currently available and is programmed for 2 years.

Application
Applicants should sent a CV with publication list, a statement of past and present research interests, and the names and addresses of at least two referees to Dr L.A. Chakrabarti (chakra@pasteur.fr).