

POST-DOCTORAL POSITION IN IMMUNOLOGY AND TRANSCRIPTOMIC IN LUNG TRANSPLANTATION AT THE CRTI (NANTES, FR)

Deciphering the role of B cells in chronic lung allograft dysfunction after lung transplantation

Chronic lung allograft dysfunction (CLAD) is the main limitation of long-term survival after lung transplantation. Although several risk factors of CLAD have been identified, pathophysiological pathways and molecular triggers remain unknown. Our previous works suggest an association between B cells and the appearance of CLAD. This hypothesis is supported by animal models and recent literature showing *de novo* donor-specific antibodies (DSA) and antibody mediated rejection as a major risk factor for CLAD, with an impact on recipient survival.

The objective of this postdoctoral research position is thus to investigate the role of B cells, DSA and some specific target molecules (Danger R et al, Front Immunol. 2018 Jan 11;8:1841, PMID: 29375549) in CLAD physiopathology. In a first task, multiparametric assays comparing CLAD with patients with stable respiratory function will decipher in details which B cell subset is altered in BOS and whether regulatory B cells are impaired in this setting. Then deeper investigation, using transcriptomic and functional analyses, will highlight whether an altered balance of regulatory B cells /inflammatory B cells or altered targets on B cells trigger CLAD. A second task will be dedicated to the role of these specific targets in B cell biology function and their role in CLAD, a third task will be dedicated to exhibit the direct effect of DSA on the airway epithelium thanks to a culture model previously established. Moreover, this objective has also the potential to reveal molecular targets that can be modulated to favor regulatory B cells in a biotherapy.

The applicant

Applicants should have a PhD or equivalent doctoral degree with proven research experience in cellular biology and immunology. Previous works focused on B cell biology and function (culture and molecular basis) would be an asset.

The current position is open from 1st January 2020 for a 24-month contract with salary depending on candidate's experience.

The Center

The CRTI is a joint research unit (UMR 1064) of the INSERM and the University of Nantes devoted to transplant immunology (<http://crti.univ-nantes.fr/>). The CRTI is located in the Nantes Hospital where it constitutes with several clinical departments the Institute of Transplantation Urology and Nephrology (ITUN), one of the largest French and European kidney transplantation centers. This unique environment fosters interactions between basic scientists and clinicians, and explains the strong commitment of the CRTI to translational research. The main objectives of the CRTI are to improve treatments and patient monitoring in transplantation and immune-mediated inflammatory diseases (IMIDs) through understanding immune responses, developing new immunotherapeutics, biomarkers and tools for personalized medicine and developing alternative strategies for organ or tissue replacement.

To apply :

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