



Post-doctoral position in Pasteur, Paris

A two-years postdoctoral position is available in the laboratory of Dr Emmanuel Lemichez.

Description

The project will be conducted in a highly stimulating, interdisciplinary and international environment in the department of Microbiology of the Institut Pasteur, Paris in collaboration with the proteomic facility. The successful candidate will study the interplay of bacterial toxins with the cellular ubiquitin and proteasome systems and consequences in infection.

Post-translational modifications of proteins by ubiquitination are central reactions in the maintenance of cellular homeostasis, quality control of the proteome and innate immune signaling in reaction to the attacks by pathogens, which frequently have acquired the ability to divert ubiquitin-mediated reactions to their advantage. It is therefore essential to define the interplay between bacterial virulence factors and ubiquitin-mediated cellular regulations. The study of the cytotoxic necrotizing factor-1 (CNF1) from pathogenic *Escherichia coli*, a toxin that catalyzes the activation of Rho GTPases, has been instrumental in deciphering the regulation of Rho GTPases by the ubiquitin-proteasome systems. The regulation of Rho GTPases by ubiquitination has emerged these recent years as a critical determinant in their regulatory function on the actin cytoskeleton, on cell growth and fate, and for the control of inflammatory signaling pathways. However, the overall impact of Rho-activating toxins on the dynamics of proteome ubiquitination and its involvement in cell-autonomous anti-microbial functions is less appreciated. This will be studied using cutting edge proteomic and imaging techniques.

We are looking for a highly motivated candidate with good track record, independent thinking and competence in data organization & manuscript preparation. Experience in proteomics and skills in basic molecular biology and protein biochemistry are required, along with interest in cell biology. Previous experience in microbiology would be appreciated but is not mandatory.

The position is founded for 2 years with an additional year that will dependent on the CV of the applicant and advancement of the project.

How to apply : please send a full CV, brief statement of previous research accomplishments (max 1 page) and 2 reference letters : emmanuel.lemichez@pasteur.fr

Job Information

Closing date to submit applications: 18th February 2018

Selected candidates will be contacted: 1st March 2018

Employment start date: May - September 2018

Contract length: 2 (+ 1) years

Institution: Institut Pasteur

Department: Microbiology

Contact Information

Emmanuel LEMICHEZ

Laboratory of Bacterial Toxins

Institut Pasteur

25 rue du Dr Roux

75015 Paris

email : emmanuel.lemichez@pasteur.fr

<https://research.pasteur.fr/fr/department/microbiology>