

Postdoctoral position available to study the molecular mechanisms of G protein-coupled receptor hijacking by *S. aureus*

Project

To combat resistant strains of *S. aureus* (SA), we urgently need to target novel molecular mechanisms essential for SA growth and pathogenesis. One such essential mechanism is bacterial leukotoxins that hijack human chemokine G protein-coupled receptors on the surface of myeloid and erythroid cells, leading to the destruction of these cells.

This project aims at deciphering the structural, mechanistic and pharmacological aspects of the interaction between *S. aureus* (SA) bi-component leukocidins and host chemokine receptors by means of a cutting-edge integrative structural mass spectrometry and pharmacology approach. This will be of great biotechnological interest aiming at developing novel inhibitors to tackle SA growth and virulence.

The project is within the framework of an ANR JCJC research program and will be conducted under the supervision of Chérine Bechara within the group of Sébastien Granier and Bernard Mouillac.

Host Institute

The successful candidate will join the Granier-Mouillac Lab focused on deciphering the molecular mechanisms of membrane protein function using an integrated strategy combining molecular and structural pharmacology approaches and computational methods. The Granier-Mouillac Lab is part of the Institute of Functional Genomics (IGF), which carries out interdisciplinary research at the forefront of structural, biochemical, genetic, epigenetic, omics, physiological and behavioral studies.

The IGF is located in Montpellier, a growing and highly dynamic city in the south of France, at the heart of the famous University of Montpellier, one of the oldest in Europe, making it a wonderful environment to live and work.

Requirements

We are looking for highly motivated and ambitious candidates with a Ph.D. degree in mass spectrometry or structural biology. A previous experience in biochemistry is essential; experience with membrane protein expression, purification and reconstitution is preferred. Applicants should be able to take initiatives and responsibility within the work environment. Successful applicants are expected to have demonstrated ability to work independently, have good organizational skills, work in an interdisciplinary team, and manage multiple tasks.

Terms of employment

The position is for one year with a possible extension of two years and will start in Feb. 2022. The deadline for application is January the 4th 2022. The salary will follow the INSERM guidelines.

How to apply

Interested applicants should send their CV, a cover letter describing their motivation and contact details of two academic references to cherine.bechara@igf.cnrs.fr.