

Appel à manifestation d'intérêt - Chaire de professeur junior

Fiche projet type

Établissement/organisme porteur : Inserm

Nom du chef d'établissement/d'organisme : Gilles Bloch

Site concerné : Centre Méditerranéen de Médecine Moléculaire (C3M) U1065

Région académique : Nice

Nom du projet : Host Response to Infectious Agents During Sepsis

Mots-clés : Host-pathogen interactions, immune responses, inflammation, infectious diseases, Sepsis.

Durée visée : 6 years

Scientific domain : Life Science, Immunology, Microbiology, Infectious diseases

Section (s) CNU/CoNRS/CSS correspondante (s) : CSS5

Strategy of the host institution :

The proposed Chair will allow Inserm to recruit a promising young researcher with expertise in host responses to infectious diseases with a focus on Sepsis. The proposed Chair is in line with the main Inserm objective: "Improve the health of all by improving our fundamental and disease-related knowledge and by innovative public health research and treatment". This recruitment is also expected to contribute to the international attractiveness of Inserm and the host center C3M. This recruitment will reinforce the Infectious disease and Inflammation axis of C3M and the Immunity department of University Côte d'Azur.

Strategy of the host laboratory :

The C3M is a research center located within the CHU de Nice and promoting the science from fundamental to translational research. The work carried out in the laboratory ranges from the identification of new molecular players and the exploration of immune signaling pathways in various cells (professional immune cells or not), to the development of infection models and/or the analysis of clinical samples with the goal of developing innovative diagnostic tools or therapies.

Summary of the scientific project :

The project aims to explore the host response to pathogens contributing to Sepsis. This aim will be achieved by investigating immune responses to various pathogens including viruses, bacteria or parasites. This project will be developed within the host team "Microbial Virulence and Inflammatory Signaling" at C3M (www.c3m-nice.fr/en/Teams/team-06) in close collaboration with the CHU de Nice and in line with the 2017 resolution of the WHO recognizing sepsis as a global public health priority. In this context, better understanding the mechanisms of sepsis is a major challenge for discovering tomorrow's tools for early diagnosis and considering new treatments. Our research program promotes a translational and multidisciplinary approach to explore molecular and cellular mechanisms controlling Sepsis. The recruited researcher will be using integrative approaches and/or innovative research models of host-pathogen interaction (cellular, animal, ex-vivo, organ-on-a-chip...) as well as patient-derived biological materials to identify or explore host immune mechanisms. This could be related to the identification of pre-existing factors sensitizing to

infectious diseases, and the study at the molecular or cellular level of the immune responses to pathogens during infection.

Summary of the teaching project : 15 lignes maximum

The recruited researcher will be involved in the teaching of Microbiology and Immunology modules of the Master's degree at the University Côte d'Azur. The recruited researcher will also be involved in the organization of interdisciplinary workshops organized within the Labex Signalife. The candidate will also participate in teaching in other teaching programs of University Côte d'Azur (Faculté de Médecine, Polytech...).

Funding :

ANR package	200k€
Co-funding Idex UCA JEDI	50k€
Total project	250k€

Scientific communication and dissemination : Our ambition is to create a solid scientific environment that will lead to major publications of both the candidate and the host laboratory. Scientific dissemination will occur through presentations to international scientific meetings, publications in high impact journals and patents. To this aim, results will be submitted before publication to Inserm transfer to take on the valuation statement of the project including intellectual property, benchmarking, and identification of potential industrial partners. We believe the proposed host environment will be a springboard for the candidate to obtain both national and European grants.

Open Science : The C3M is an Inserm unit committed to open science. Our publications are made available in HAL and we are always giving high priority to Open Access journals. The large amount of data produced in the unit are available through publications and dedicated public databases. The candidate's project will be included in our unit open science framework.

Science and society : The C3M is in direct relation with the clinical units of the Centre Hospitalier de Nice. Among them, the microbiology and infectious disease departments are involved in each step of our research allowing the transfer to the patient's benefit. The C3M is also very active in the dissemination to the general public through various media (TV, newspapers or social media), in organizing or participating in open conferences (Fête de la Sciences, Nuit des chercheurs) or actions with local school pupils and high school students for awareness-raising actions (Destination labo, Olympiades Nationales de Biologie). The general public will also be informed of our discoveries through national or international publicity via our institutions (Inserm and Université Côte d'Azur) and via the CHU de Nice, which will raise public awareness.

Indicators :

Project realization will be followed with the following indicators:

- number of research publications and patents

- number of research project grant submitted
- number of students and postdocs formed
- involvement in teaching (number of hours/yr)
- number of research communications during conferences
- involvement in the institute scientific animation