

## CALL FOR A PHD RESEARCH FELLOWSHIP Fellowship Reference IMM/BD/11-2024

Instituto de Medicina Molecular João Lobo Antunes (iMM) opens a call for 1 (one) PhD research fellowship under the project "Induction of Long-lasting Premunition against Malaria" with financial support from Merck KGaA.

Scientific Area(s): Microbiology, Parasitology, Immunology

**Fellowship recipients / Admission requirements:** Any National, foreign and stateless candidate(s) that fulfill the necessary conditions to be enrolled in a PhD study cycle in area related to the work plan can apply. Applicants must hold the following requirements:

- MSc degree holder in Biology, Microbiology, Immunology or related areas;
- Experience in and accreditation for animal experimentation (FELASA B or equivalent) (Preferential Criteria);
- Vast knowledge of and profound interest in immunology and infectious diseases;
- Experience in immune response assessment methods, including multi-parameter flow cytometry and ELISA;
- Knowledge of immunofluorescence microscopy and RT-qPCR techniques;
- Excellent oral and written communication skills in English;
- High sense of organization, responsibility and commitment to research;
- Excellent interpersonal skills and ability to work both independently and within a team environment;
- Critical thinking skills, initiative and proactivity;
- Availability to start within 2 months of call closure;
- The international experience of the candidates, although not a determining criterion for selection, will be valued.

Work Plan and Objectives: The human immune system is equipped to fight a wide range of potential pathogens. Infection leads to disease only when the interaction between the host and the microorganism causes sufficient damage to disrupt homeostasis. In recent years, the effort to prevent or treat infectious diseases has relied primarily on targeting the microorganisms themselves. However, in the case of malaria, a decrease in parasitemia alone is not sufficient to control the disease, and clinical protection from malaria (antimalaria immunity) has been shown to be a complex process that involves both the host (human) and the *Plasmodium* parasite, demanding new, effective interventions, which may focus on both these targets, leading to a more comprehensive approach to infection control. Therefore, the main aim of the study is to characterize parasite-host interactions and evaluate their impact on the development of clinical protection against malaria, using a rodent model of liver and blood stage *Plasmodium* infection. Specific objectives of the study include:

- Evaluation of the hepatic action of selected therapies on the parasite and on the polarization of the host's liver stage immunity;
- Immunophenotyping analysis of infected vs control mouse groups and assessment of the development and duration of anti-malarial protection.

The selected candidate will carry out all experimental procedures in the context of the proposed research project and is expected to finish her/his PhD within 4 years from the start of the Fellowship. The candidate will initially be closely accompanied by the Supervisor and other senior members of the host laboratory, and will be expected to progressively gain technical and scientific independence. The candidate will be asked to provide regular accounts of the research progress, and to present the results to various audiences (academia, industry) during the duration of the Fellowship.



Legislation and Applicable Regulation: Estatuto do Bolseiro de Investigação (Lei n.º 40/2004, de 18 de Agosto, republished in attachment to Decreto-Lei n.º 202/2012, de 27 de Agosto, changed by Decreto-Lei n.º 123/2019, 28 de Agosto), current Regulation of Fellowships of iMM and iMM Career By-Law and Assessment regulations.

**Expected start date, duration and renewal conditions:** The fellowship contract is predicted to start in May 2024, for a period of 12 (twelve) months on an exclusive basis, eventually renewable until the maximum stipulated in applicable regulations, not exceeding the eligibility period of the project (predicted to end on April 2028).

**Work place and Scientific supervision:** The research activities will be developed at the Plasmodium Infection & Anti-malarial Interventions Laboratory of iMM, under the supervision of Miguel Prudêncio.

**Non-discrimination and equal access policy:** iMM undertakes to ensure compliance with the principles of non-discrimination and equality and to that extent, provides that no candidate can be privileged, benefited, harmed or deprived of any right or exempted from any duty due in particular ancestry, age, gender, sexual orientation, marital status, family status, economic status, education, social origin or condition, genetic heritage, reduced working capacity, disability, chronic disease, nationality, ethnic origin or race, place of origin, language, religion, political or ideological convictions and trade union membership.

International environment and experience: Diversity is a fundamental aspect of the essence of iMM, where researchers and non-researchers of different nationalities, backgrounds and areas of study work together, promoting the exchange of experiences and interactions, contributing to the personal and professional development of each person and to the existence of an international, inclusive and stimulating environment.

**Research Fellows Support Centre:** The Research Fellows Support Centre works on Tuesdays and Thursdays from 9:00AM to 6:0 oPM at the Human Resources Office.

Fellowship financial conditions: The fellow will benefit from a monthly stipend in the amount of 1.199,64€. The amount will be paid by wire transfer at the end of each month. The fellow will also benefit from a personal accident insurance to execute the proposed research activities as well as the right to Social Security through Voluntary Social Insurance regimen, if wanted, under the terms of Código dos Regimes Contributivos do Sistema Previdencial de Segurança Social, and the contributions costs will be supported by the research project.

Application documents: - Motivation Letter in English; - Detailed CV; - MSc degree certificate; - Contacts of 2 references. The non-compliance with these requirements determines the immediate rejection of the application.

In case the applicant does not have yet the required degree certificate, a declaration of honor stating the conclusion of the necessary qualifications for the purposes of this process will be accepted and must be sent by the end date of the call.

Jury evaluation and selection: Miguel Prudêncio (iMM), Helena Nunes-Cabaço (iMM) and Diana Fontinha.



Selection methods: Phase 1: CV and Motivation Letter (65%); Phase 2: Interview (35%). Only the candidates who obtained a score equal or higher than 45% in Phase 1 will be selected for an Interview.

Deadlines and application process: The call will be open from 8th to 29th of February 2024.

Applications should be submitted through iMM website, by clicking in the "Apply" button below the position job ad. The non-compliance with these requirements determines the immediate rejection of the application.

Notification of results: The evaluation results will be announced within 90 days after the termination of the applications submission deadline, by writing and publishing a jury meeting minute at iMM website at <a href="https://imm.medicina.ulisboa.pt/jobs/#results">https://imm.medicina.ulisboa.pt/jobs/#results</a> with all process of recruitment, evaluation and selection including a list of all excluded and admitted candidates and for the latter ones, their classification. All admitted candidates will be notified by email.

**Preliminary Hearing and Final Decision Deadline:** After notification, all candidates have 10 working days to respond. The panel's final decisions will be pronounced within a period of 90 days from the application deadline.

**Fellowship contracting:** The Fellowship is granted through the signature of a <u>contract</u> between iMM and the selected fellow and after the fellow send the following mandatory documents: copy of identification document (in case of non-European citizens is mandatory the work visa / valid resident permit), document proving the required academic degree and the document proving the enrollment in a PhD study.

For each Fellowship period an <u>Activity Report</u> must be prepared by the fellow as well as the <u>Report</u> by the supervisor.

Lisbon, 7th of February 2024

The Executive Director of iMM Professor Maria Manuel Dias da Mota



