



## ANNOUNCEMENT OF AN INTERNATIONAL CALL FOR THE SELECTION OF A PhD HOLDER RESEARCHER

**Internal code:** Researcher/FCT\_Proj2023/i3S/0702/2025

A call is opened for the position of a PhD holder, for an unfixed term work contract to carry out research duties within the project " ParaShield- A novel role for CD5L in modulating the immune responses against protozoan parasites", with reference 2023.14474.PEX, funded by Fundação para a Ciência e Tecnologia, IP.

**Scientific Area:** Immunology and infection

### 1. Project summary and work plan

CD5 antigen-like (CD5L) is a circulating protein from the scavenger receptor cysteine-rich (SRCR) superfamily, traditionally associated with microorganism neutralization and enhanced macrophage phagocytosis. Our previous studies revealed that CD5L recognizes protozoa such as *Trypanosoma brucei* and *Plasmodium berghei*, broadening its spectrum of activity. Protozoan vector-borne diseases, such as malaria and African trypanosomiasis, caused by *Plasmodium* spp. and *T. brucei* respectively, affected over 240 million people worldwide in 2021.

In vivo experiments using murine infection models for *T. brucei* and *P. berghei* showed increased serum CD5L levels at different post-infection stages and greater susceptibility to *T. brucei* infection in the absence of CD5L. Preliminary results in the *T. brucei* infection model suggest that CD5L reduces excessive inflammation and modulates immune recognition. In *Plasmodium*, it may influence immune responses during the hepatic and blood stages.

This project aims to explore the role of CD5L in immunity against vector-borne parasites, contributing to the development of innovative therapeutic interventions for globally impactful diseases. Its objectives are:

- 1) To characterize the molecular mechanisms responsible for conferring susceptibility to *T. brucei* infection.
- 2) To investigate the relevance of CD5L in a malaria model involving transmission of *P. berghei* sporozoites via mosquito bite or inoculation of infected red blood cells.

### 2. Applicable Portuguese legislation

Decree Law 57/2016, 29 August, in its current wording  
Portuguese Labor Code, in its current wording

### 3. Jury

Chairman: Joana Tavares; Other Members: Ana do Vale, Nuno dos Santos

### 4. Workplace

i3S - Rua de Alfredo Allen, 208 Porto, research group "Cell Activation and Gene Expression"

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## 5. Professional category and monthly remuneration

Junior Researcher

€2.351,53, corresponding to index 33 of the Tabela Remuneratória Única, whose application is intended for PhD holders with reduced post-doctoral experience or without a post-doctoral scientific curriculum.

## 6. Obligatory requirements for admission

1. PhD degree in Biomedical Sciences or related areas
2. License for working with rodents certified by Portuguese DGAV or equivalent entities (functions A+B+D, former FELASA C).
3. Proficiency in English, spoken and written;
4. Previous experience in scientific research on Host/Microorganism Interactions, Immunology, and Microbiology;
5. Previous experience with infection models in mice, particularly under BSL2 conditions;
6. Publications in internationally recognized peer-reviewed journals in areas relevant to the project;
7. Experience in mentoring students.

## 7. Evaluation of the applications and publication of the results

The evaluation of the scientific and curricular background of the candidates should focus on the activity of the last five years that the candidate considers most relevant. The five-year period may be extended by the jury, at the candidates request, when justified by suspension of scientific activity for socially protected reasons, namely for reasons of parental leave, prolonged serious illness, and other situations of unavailability for work that are legally protected.

### Weight of the different curricular valuation criteria:

#### a) CV (80%)

- Previous experience in scientific research in areas related to the project (15%);
- Experience in studies with parasite infections using different in vivo models (20%);
- Publications in internationally recognized peer-reviewed journals (10%);
- Experience with CRISPR technology in vitro and in vivo for the generation of genetically modified animals (10%);
- Experience in cloning and production of recombinant proteins in mammalian cell systems (10%);
- Experience in RNA extraction, analysis, and interpretation of RNA sequencing data (5%);
- Proficiency in flow cytometry (5%);
- Participation and communication in scientific meetings (e.g., oral presentations and posters) (5%).

#### b) Motivation letter (10%)

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### c) Interview (10%)

If the jury decides to obtain further clarifications and additional information about the curricular elements presented, the 2 best candidates classified on the basis of the curriculum may be called for an interview.

Candidates are excluded from admission to this call if they do not fill out their application correctly or do not meet the obligatory admission requirements. If in doubt, the jury may ask any candidate additional documents in support of their statements.

False statements made by candidates will be sanctioned in accordance with the law.

The jury will draw up minutes of its meetings, which can be consulted at the candidate's request within 10 working days after the selection results are released.

The jury deliberates by means of a reasoned vote according to the evaluation criteria, with no abstentions allowed, and draws up a list of excluded and admitted candidates, ordered by respective classification.

All candidates are notified of the selection results by email. After notification, candidates have 10 working days to comment.

In the 90 days following the deadline for submission of applications, the jury's final decision is communicated to the candidates. Subsequently the institute Director, who is also responsible for the final decision of hiring, will ratify the decision of the jury.

This call is intended exclusively to fill the indicated position on offer and may be canceled before the final ranking list of candidates is ratified by the Director. Accordingly the position will no longer be available.

### **8. Submission of applications**

Applications must include all the documents proving that they fulfill the admission requirements, namely:

- a) Copy of certificate or diploma;
- b) Detailed Curriculum Vitae;
- c) License for working with rodents certified by Portuguese DGAV or equivalent entities (functions A+B+D, former FELASA C).

The submission of applications is digital, in pdf format, from 7 to 20 February 2025, in the following link:

<https://dozer.i3s.up.pt/applicationmanagement/#/addapplications/78854d98c3a18f9343fb7f3da8b92fa2>



### **9. Start and duration of the contract**

The anticipated start date of the contract is 16/03/2025 and is subject to budget availability. The maximum duration of the contract will be 4 months.

### **10. Non-discrimination and equal access policy**

i3S actively promotes a policy of non-discrimination and equal access. No applicant shall be privileged, benefited, prejudiced, or deprived of any right or exempted from any duty on the basis of ancestry, age, gender, sexual orientation, marital status, family situation, economic situation, education, origin or social condition, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic origin or race, territory of origin, language, religion, political or ideological beliefs, or trade union membership.

Within the framework of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, i3S adopts the Open, Transparent and Merit-based (OTM-R) principles for the recruitment of researchers, with the aim of conducting fair and transparent recruitment processes, bringing equal opportunities to all candidates.

### **11. Applicants with disabilities**

Under the terms of Decree-Law 29/2001, of February 3, the candidate with a disability is given preference in equal ranking, which takes precedence over any other legal preference. Candidates must declare under oath their degree of disability, the type of disability and the means of communication/expression to be used in the selection process, under the terms of the aforementioned decree.