ANNOUNCEMENT OF AN INTERNATIONAL CALL FOR THE SELECTION OF A RESEARCH TECHNICIAN

Internal code: Technician/COMPETE2030_PISCICURA/i3S/1111/2026

A call is opened for the position of a Research Technician, for an unfixed term work contract, to carry out technical duties within the project PISCICURA: "Novel approaches to mitigate *Photobacterium damselae* subsp. *piscicida* infections in aquaculture based on a recently identified binary toxin lethal to different fish species", with reference COMPETE2030-FEDER-00660400, Operation No. 15552, funded by COMPETE2030 and national funds (FCT) under Call for Applications No. MPr-2023-12.

Scientific Area: Biological Sciences

1. Project summary and work plan

This project aims at uncovering fundamental aspects of host-pathogen interactions at the interface of molecular biology, cell biology, biochemistry, and structural biology. Using recombinant protein expression and a range of *in vitro* and *in vivo* models, we are investigating how a binary toxin from a fish pathogen acts at the molecular and cellular levels, including the role of its domains in target cell recognition and host specificity. In collaboration with a specialized biophysics group, we will also study the toxin's interactions with lipid membranes and its potential to form pores, while complementary cell-based assays will determine whether toxicity requires internalization by target cells. Vaccination trials in fish will assess the potential of this toxin as a candidate for disease prevention in aquaculture, thereby contributing to reduced antibiotic use and supporting the One Health strategy. In parallel, homologous toxins from human and animal pathogens will be produced and analyzed through functional assays and structural studies, aiming to uncover new virulence mechanisms and to identify targets for the development of anti-virulence therapies directed against this group of binary toxins.

The recruited Research Technician will carry out cell biology experiments to characterize different aspects of the biological activity of the toxins under study, as well as *in vivo* experiments to evaluate the potential of the newly identified toxin as a vaccine antigen against photobacteriosis. The technician will also contribute to data analysis, preparation of project reports and, when appropriate, dissemination and communication of project results.

2. Jury

Chairman: Ana do Vale; Other Members: Nuno M. S. dos Santos, Sandra R. Sousa; Substitutes: Inês Loureiro, Didier Cabanes.

3. Workplace

i3S - Rua de Alfredo Allen, 208 Porto, research group Fish Immunology and Vaccinology

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4. Professional category and monthly remuneration
Research Technician
€ 1.621,95, subject to taxes and other mandatory deductions.

5. Admission requirements and preferred qualifications
Mandatory requirements:
a) Master's degree in Life or Health Sciences or related scientific areas;
b) Hands-on experience in cell culture and flow cytometry;
c) Training in animal experimentation involving fish;
d) Ability to communicate proficiently in English (written and spoken);
e) Availability to start work on January 1st (to be mentioned in the motivation letter).

Preferred qualifications:
a) Hands-on experience in isolation and *ex vivo* culture of immune cells from fish mice and/or human blood;
b) Experience in microscopy;
c) Experience in techniques for determining fish humoral immune responses (ELISA, Western Blotting);
d) Hands-on experience in basic microbiology techniques (microbial cultures, quantification of bacterial inocula);
e) Experience in maintenance of saltwater aquarium systems.

6. Evaluation of the applications and publication of the results
Weight of the different curricular valuation criteria:
a) Detailed assessment of the applicant's CV, with an emphasis on scientific training and laboratory experience in areas relevant to the project (68%):
    i. Experience in cell culture, including isolation and *ex vivo* culture of different immune cells from fish, mice and human blood (20%);
    ii. Experience in flow cytometry and microscopy (15%)
    iii. Experience in fish experimentation, including administration of substances/bacteria and blood collection (10%);
    iv. Experience in techniques for determining fish humoral immune responses (10%);
    v. Experience in handling bacteria, including establishment of bacterial cultures and quantifying bacterial inocula (5%);
    vi. Experience in monitoring/maintenance of saltwater aquarium systems (8%)
b) Motivation letter, written in English, expressing the interest and motivation of the candidate for the area where the hiring profile fits (12%);
c) Interview – *facultative* (20%).

If needed, the evaluation panel may invite the most highly ranked candidates (up to 3) for an interview. The final classification system for candidates is expressed on a scale from 0 to 100. Candidates who are not interviewed will have their maximum attainable score capped at 80% of the evaluation.

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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 take minutes of their meetings, which may be consulted by candidates upon request.

The jury deliberates by means of a justified vote according to the evaluation criteria, with no abstentions allowed, and draws up a list of excluded and admitted candidates, ranked by the respective classification after the curricular evaluation. Candidates will be notified of the results by email.

After publication of the ranking list, if their wish to do so, the candidates have 10 working days to submit comments.

In the 90 days following the deadline for submission of applications, 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.

7. 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, focusing on the criteria specified in 5 and 6;
c) Motivation letter.

The submission of applications is digital, in pdf format, from November 11th to November 24th, 2026, in the following link:

https://dozer.i3s.up.pt/applicationmanagement/#/addapplications/a341b75b62ac23c0fccf436527e61e9

8. Start and duration of the contract

The anticipated start date of the contract is January 1st, 2027, and is subject to budget availability. The expected duration of the contract will be 12 months, eventually extendable.

9. 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

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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.

10. 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.

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