



NOTICE OF OPENING OF AN INTERNATIONAL CALL FOR THE SELECTION OF A PhD HOLDER RESEARCHER UNDER DECREE-LAW NO. 57/2016

Internal code: Researcher/MAR-FEAMPA/i3S/1311/2025

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 **“FLATFARE - Innovation to improve animal welfare in intensive turbot and sole production contexts”**, with reference MAR-021.1.1-FEAMPA-10035, funded by *Instituto de Financiamento da Agricultura e Pescas IP*.

Scientific Area: Biological and veterinary sciences

1. Project summary and work plan

Animal welfare is a matter of utmost importance for the industry, not only due to its increasing relevance in public opinion, marketing, and product acceptance, but above all because of its impact on production efficiency and final product quality. In this regard, animals farmed in aquaculture are now protected under European legislation. Animal welfare requires best practices in terms of farming conditions and fish handling, from reproduction to slaughter.

In recent years, significant scientific developments in the field of health and welfare of two aquaculture species with high potential in Portugal — turbot (*Scophthalmus maximus*) and Senegalese sole (*Solea senegalensis*) — have led to major advances in the optimization and implementation of commercial protocols that enhance not only the zootechnical performance of these species but also their welfare under intensive farming conditions.

One of the factors with high impact on animal welfare is the prevention of infectious diseases. These diseases are widely recognized as a critical issue in aquaculture facilities, not only because they are usually associated with suboptimal health and welfare conditions, but also due to the economic losses they can cause. In fact, in recent years, both national and European policies have increasingly promoted farming practices that aim not only to improve disease diagnosis and prevention but also to reduce the use of veterinary drugs, which can cause environmental harm and contribute to the development of antimicrobial resistance (EC, 2021).

In the specific case of Senegalese sole, one of the diseases that most severely limits productivity and profitability in aquaculture due to the economic losses it causes is the infection by *Photobacterium damsela* subsp. *piscicida* (Phdp) (Martínez et al., 2016; Pinto et al., 2018). Although this bacterium affects other marine fish species and licensed vaccines are available for those species, there are currently no effective vaccines for Senegalese sole. The available vaccines for other species have proven ineffective in this one. As a result, numerous outbreaks have been reported, even in vaccinated stocks, leading to the classification of this disease as endemic in Mediterranean aquaculture.

This project aims to develop innovative vaccines for Senegalese sole (including bacterins, recombinant vaccines, and outer membrane vesicle-based vaccines) using Phdp isolates selected based on genomic sequencing data, or specific antigens derived



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from those isolates. These vaccines are intended to provide protection against this disease throughout the production cycle. The vaccines will first be tested in short-term experimental trials. Based on the results of these preliminary efficacy tests, the most promising vaccines will be selected for long-term trials. During these trials, blood/organ samples will be collected to monitor the immune response to the different vaccines, with the goal of correlating protection/survival with the immune response elicited.

2. Applicable Portuguese legislation

Decree No. 57/2016, of August 29 – Legal Framework for Scientific Employment (RJEC) – in its current version.

Portuguese Labor Code, in its current wording.

3. Jury

Chairman: Nuno M. S. dos Santos. Other members: Ana do Vale e Sandra R. Sousa. Substitute: Didier Cabanes e Inês Loureiro.

4. Workplace

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

5. Professional category and monthly remuneration

Junior Researcher Level 2.

€ 2.622,59, corresponding to index 38 of the Tabela Remuneratória Única.

6. Obligatory requirements for admission

- a) Candidates must hold a PhD for at least three years in fields related to Biology, Biochemistry, or Microbiology;
- b) Solid experience in bacterial genetics and molecular biology, as well as in the production and purification of recombinant proteins;
- c) Experience in structural biology and/or bioinformatic (e.g., genomic analysis) will be considered an asset;
- d) Fluency in English (spoken and written);
- e) Immediate availability to start the contract.

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 candidate's 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) Detailed Curricula (90%);
- b) Interview - *facultative* (10%).



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

Candidates who submit their application incorrectly or fail to meet the required qualifications for this competition will be excluded from admission.

The jury reserves the right to request any candidate, in case of doubt, to provide supporting documents for 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) PhD degree in / Copy of certificate or diploma;
- b) Detailed Curriculum Vitae;
- c) Other relevant documents for the evaluation of qualification in a related scientific area.

The submission of applications is digital, in pdf format, from November-13 to November-26 2025, in the following link:

<https://dozer.i3s.up.pt/applicationmanagement/#/addapplications/2a99f03320d57cf486939545edada060>



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9. Start and duration of the contract

The anticipated start date of the contract is 01 / 01 / 2026 and is subject to budget availability. The expected duration of the contract will be 12 months, eventually extendable.

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.