

Assistant Researcher – Innovative Nutritional Strategies (M/F) - 1 Position Available

Reference: CCMAR/IAENI/13/2024

The **Centro de Ciências do Mar do Algarve (CCMAR)** is opening a recruitment and selection process for one position for an Assistant Researcher in Innovative Nutritional Strategies. This position is open to citizens of any nationality, including stateless individuals, under a permanent employment contract to recruit and select the best candidate for activities within the Foundation for Science and Technology Tenure Program (FCT - Tenure), according to the following conditions:

1. About CCMAR:

CCMAR (<https://ccmar.ualg.pt/>) is one of Portugal's leading marine science research centres, rated Excellent in evaluations promoted by the Foundation for Science and Technology (FCT). With a multidisciplinary team, well-equipped facilities, and laboratories, CCMAR engages in core areas such as research, training, business, societal engagement, and collaboration.

2. Summary and Functions:

Considering the projected population growth in the following decades, Aquaculture is vital in ensuring food security. However, it faces unprecedented challenges. The sustainable expansion of aquaculture requires the development of strategies to promote the well-being and health of fish while minimising nutrient and chemotherapeutics pollution. Nutrition is a key player in this endeavour. The search for innovative ingredients and adopting circularity and waste reduction principles, as advocated by the European Green Deal, are now priorities. Still, their impact on fish gut integrity, stress and immune responses must not be neglected. Climate change events pose further challenges to the aquaculture industry. As this novel feeding paradigm emerges, it is crucial to understand its impact on fish metabolic, physiological, and immune responses and the interactive effects of challenging environmental events. Simultaneously, unravelling the potential of functional ingredients in the next-generation diets is key for mitigating the adverse effects of environmental stressors and enhancing fish plasticity and resilience under challenging aquaculture conditions.

Within this framework, CCMAR seeks an Assistant Researcher to conduct cutting-edge research, adopting a transdisciplinary approach to explore the interplay between fish nutrition and immunity in the context of challenging environmental events, addressing these objectives:

- a) to gain deeper metabolic insights into the effects of sustainable, innovative diets on fish health and welfare that prioritise principles of circularity and waste reduction;
- b) to advance the knowledge on fish physiological responses to interactive effects of next-generation diets and climate change;

- c) to diminish nutrient and chemotherapeutics pollution through the development of nutritional strategies that increase feed efficiency and retention;
- d) to develop mitigation strategies that enhance fish plasticity and resilience to challenging aquaculture scenarios.

The Tasks to be developed should use marine fish aquaculture species as models. The Tasks should contribute to identifying physiological adaptive features resulting from sustainable, innovative dietary formulations and exposure to challenging environmental events (sub-optimal rearing temperatures, sudden shifts in water temperature or salinity levels). In parallel, bioactive ingredients identified as potential immunomodulators for fish health management (e.g. yeasts, fish hydrolysates, insect meals) should be explored as an alternative to antimicrobials and in line with the EU guidelines. Biochemical, transcriptomic and metabolomic analyses should be combined to assess fish gut integrity, stress, and immune responses. This will allow the mapping of metabolic markers and pathway changes due to nutritional interventions and exposure to environmental stressors. In vivo trials using tracers should unveil the impacts of specific additives on vital metabolic pathways under challenging conditions, refine novel dietary formulations and define nutritional strategies.

Note: This is the initial work plan. However, the selected candidate may be assigned additional tasks and responsibilities in alignment with the CCMAR's evolving strategy, allowing for adaptation to new priorities and challenges.

3. Applicable Law:

- a) Decree-Law No. 57/2016, of August 29, amended by Law No. 57/2017, of July 19.
- b) Regulatory Decree No. 11-A/2017, of December 29.
- c) Labour Code, approved by Law No. 7/2009, of February 12, in its current version.
- d) Decree-Law No. 124/99 of April 20, in its current version.
- e) Administrative Procedure Code.
- f) Internal Regulation for Scientific Research and Technological Development Personnel, and Science and Technology Management and Communication at Centro de Ciências do Mar do Algarve [here](#).

4. Start Date: The contract is expected to start in January 2025.

5. Workplace: Activities will occur at CCMAR (University of Algarve, Faro, Portugal) and other locations necessary for the proposed tasks.

6. Working Hours: 35 hours per week.

7. Monthly Salary: The gross base monthly salary is €3,427.59 (Index 195).

8. Application Period: The application period starts on December 4th, 2024, and ends on December 18th, 2024, at 23:59 (Lisbon time, Portugal).

9. Required Profile:

9.1) The selected candidate must have at least 5 years of postdoctoral experience in Aquaculture, particularly in the nutrition of commercially important fish species for aquaculture. The focus must include optimising environmentally sustainable diets by increasing nitrogen retention, replacing marine ingredients, and using dietary supplements to promote growth and fish welfare while minimising stress.

9.2) The candidate must demonstrate the ability to design and implement experiments in the above areas and analyse/integrate data from in vivo studies on nutrient fluxes, amino acid requirements, and metabolism. Should include nutritional approaches to minimise stress effects, supported by a strong publication record, participation or coordination in research projects, and supervision of advanced training in these fields.

9.3) The candidate must have experience securing research funding, demonstrated by previous coordination or participation in national and international scientific projects.

9.4) The candidate must show evidence of collaborations with the industry, proven through involvement in collaborative projects or contract-based research services/projects.

9.5) The candidate must demonstrate an extensive international network of collaborations, reflected in publications, collaborative research projects, and student supervision with international partners.

9.6) The candidate must have a track record of knowledge dissemination and outreach activities targeting the scientific community, aquaculture stakeholders, and broader societal audiences.

9.7) The candidate must have experience in advanced training supervision and must have acted as an examiner of advanced training theses, including MSc and PhD students.

9.8) High proficiency in spoken and written English (explicitly indicated in the CV).

10. Selection Panel:

The selection panel consists of:

1 - Adelino Vicente Mendonça Canário, President of the CCMAR Board of Directors and Full Professor at the University of Algarve and (President);

2 – Deborah Mary Power, Professor at the University of Algarve and Researcher at CCMAR (regular member)

3 – Sofia Alexandra Dias Engrola, Member of the CCMAR Board of and Principal Researcher at CCMAR (regular member);

4 – Paulo Rema, Associate Professor at the University of Trás-os-Montes e Alto Douro (regular member);

5 – Pavlos Makridis, Associate Professor at the University of Patras (regular member).

6 – Elsa Alexandra Martins e Silva Cabrita, Associate Professor at the University of Algarve and Researcher at CCMAR (substitute member);

7 - Luísa Margarida Baptista Custódio, Principal Researcher at CCMAR (substitute member).

11. Evaluation and Selection Process:

The evaluation will consist of a curriculum assessment (final rating between 0-100).

Admitted applications will be evaluated considering the scientific and curricular path, focusing on the relevance, quality, and up-to-dateness of the following criteria:

(CV) Curriculum Vitae (80%):

CA) Scientific and technological, cultural or artistic production of the last five years, considered most relevant by the candidate. The content of the scientific output is more relevant than publication metrics or the publishing entity (55%);

CB) Applied or practice-based research activities developed in the last five years and considered by the candidate to be most impactful (20%);

CC) Extension and dissemination activities developed in the last five years, particularly in the context of promoting scientific culture and practices, considered most relevant by the candidate (4%);

CD) Management activities of science, technology, and innovation programs, or experience in observing, monitoring, and evaluating the scientific and technological system or higher education in Portugal or abroad (1%).

(MCI) Motivation and Capacity for Innovation (20%):

MA) Coherence in expressing motivations for the position, explaining the relevance of the scientific and curricular path to the position and personal goals;

MB) Demonstration of alignment with the goals and values of CCMAR, based on the relevance of the scientific and curricular path;

MC) Ability to present specific contributions to the development of CCMAR based on the relevance of the scientific and curricular path, career plan, and work plan.

The selection panel may extend the five years referred to in the evaluation criteria upon the candidate's request when justified by suspending scientific activity for socially protected reasons, such as parental leave, severe prolonged illness, and other legally protected situations of work unavailability.

The selection panel reserves the right to contact or interview candidates if additional information or clarification of documentary aspects related to research results is needed. The possible interview, which does not constitute a selection method and is not classified, aims to obtain clarifications or explanations on elements contained in the candidates' CVs.

12. Selection Panel Functioning:

The evaluation (with a score of 0-100) is carried out through the assessment of the motivation letter (with a personal evaluation of the relevance of the activities of the last 5 years to the present competition, highlighting the chosen publications), the CV that will include activities in

the specific area and the candidate's scientific and professional path, and up to 5 articles selected by the candidate.

The score of each candidate is obtained by summing the points of each criterion multiplied by the respective weights according to the following formula:

$$C = CV80\% + MCI20\%$$

After determining the candidates' scores (C), each selection panel member will rank the candidates from highest to lowest score. Voting follows for the first place and each successive place. The candidate receiving the majority of votes will be selected.

If no candidate is selected in the first round of voting, the lowest-ranked candidate is eliminated, and the process is repeated with the remaining candidates. In the event of a tie, applying the previous criteria, the selection panel president will make the tie-breaking decision.

The selection panel will write minutes of meetings describing the evaluation and selection process, including a ranked list of admitted candidates and their scores. The CCMAR Board of Directors will validate the panel's final decision.

The selection panel reserves the right to close the competition without recruitment if the candidates do not possess the appropriate profile for the proposed functions. If the selected candidate cannot be appointed due to non-compliance with documentary requirements or other reasons, or if they later terminate the employment contract, the selection panel reserves the right to appoint the next candidate in the final ranking based on a reserve list that can be used up to 12 months from the date of this announcement.

13. Required Documents, Process, and Submission of Applications:

Only complete applications submitted directly and obligatorily on the CCMAR website <https://ccmar.ua.pt/en/career-opportunities> are accepted. The application is considered valid only after the candidate receives written confirmation from CCMAR. The application in English must include:

- a) A motivation letter (in English) with a personal evaluation of the relevance of the activities of the last 5 years to the present competition, highlighting the chosen publications, considering the MCI evaluation criteria, and a career plan that includes a work plan falling within the scope of point 2 (Summary and Functions) not exceeding 10 000 characters;
- b) Detailed curriculum vitae (in English) that includes activities in the specific area and the scientific and professional path of the candidate organised according to the CV evaluation criteria;
- c) Up to 5 articles chosen by the candidate.
- d) A copy of the Ph.D. certificate;

Non-compliance with requirements 9.1, 9.8 and 13 invalidates the application. According to the law, false information may be penalised.

14. Results:

The list of admitted and excluded candidates and the final ranking list will be posted on the CCMAR website at <https://ccmar.ualg.pt/en/career-opportunities>, and candidates will be notified by email.

15. Prior Hearing and Final Decision Deadline:

15.1) After evaluating all admitted applications, the Selection Panel will produce a provisional minute describing the admission, evaluation, and selection process, including a list of candidates ranked and their scores and decisions.

15.2) All candidates will be notified by email of the Selection Panel's provisional decision.

15.3) Under Article 121 of the Administrative Procedure Code, all candidates have 10 working days from the date of email notification to email the Selection Panel to contest the provisional decision.

15.4) The CCMAR Board of Directors will validate the final decision, which will be communicated (by email) to all candidates within 90 working days from the application deadline.

16. Final Information:

16.1) Candidates holding certificates proving degrees from a foreign university must have their certificate recognised in Portugal when signing the employment contract. Failure to do so justifies exclusion from the procedure. Information on degree recognition can be obtained from any Portuguese university or here.

16.2) The CCMAR Board of Directors reserves the right to cancel this recruitment process without hiring if circumstances related to the project change.

16.3) CCMAR endorses the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (Charter and Code).

16.4) Disabled candidates have a preference in case of equal classification, which prevails over any other legal preference. Candidates must declare in their application, under oath, their disability degree, type of disability, and means of communication/expression to be used in the selection process under the aforementioned decree.

16.5) CCMAR's non-discrimination and equal access policy: No candidate may be privileged, benefited, prejudiced, or deprived of any right or exempt from any duty on the grounds of, namely, ancestry, age, gender, sexual orientation, marital status, family situation, economic situation, social origin or condition, genetic heritage, disability, chronic illness, nationality, ethnicity, territory of origin, language, religion, political or ideological beliefs, and union membership.



The members of the Selection Panel approved this announcement on 03-12-2024.

