

Reference: BI/CESAM/DMi4Shrimp/2025

NOTICE FOR THE AWARD OF RESEARCH GRANTS

A tender is hereby opened for the award of one (1) **Research Grant** under the project “Dmi4Shrimp – Diatom derived microencapsulation devices for shrimp aquaculture” (2023.13065.PEX) of CESAM – the Centre for Marine and Environmental Studies R&D Centre, under the following conditions:

1. Scientific Area: Biological Sciences, Biotechnology, Aquaculture.

2. Financing Source: FCT – Foundation for Science and Technology

3. Admission Requirements:

Bachelor (BSc) or Master degree (MSc) holders in Biology, Marine Sciences, Biotechnology or related scientific areas, enrolled in a training course that does not confer an academic degree integrated in the educational project of the University of Aveiro.

Preference will be given to candidates with demonstrated experience in scientific research in the following topics (Tn); microalgae culturing techniques (T1); bioassays with marine invertebrates (T2); fluorescence microscopy (T3); HPLC (T4); and/or biochemical/immunological biomarker analysis (T5). Communication skills in English (oral and written) is also valued in candidates' evaluation.

(View Courses at: [Courses - University of Aveiro \(ua.pt\)](https://ua.pt) and [Training at UA - Universidade de Aveiro](https://ua.pt))

The proof of enrolment must be made available until the contract is awarded, and the candidate may attach a [declaration of honor](#) to confirm that they meet the requirements for enrolment in a course that does not confer an academic degree.

If the qualification has been conferred by a foreign higher education institution it must be **recognized by a Portuguese higher education institution**, under the terms of the provisions of article 25 of Decree-Law no. 66/2018, of August 16th, which approves the legal regime of recognition of academic degrees and diplomas of Higher Education, attributed by foreign higher education institutions, and of paragraph e) of no. 2 of article 4 of Decree-Law no. 60/2018, of August 3rd, and any formalities established therein must be fulfilled by the date of the hiring act.

4. Eligibility: Applicants are eligible if they comply with paragraph a) of no.1 of article 2, of the Research Fellow Statute in the wording given by Decree-Law no. 123/2019, of August 28th, and also the provisions of article 9 of the Scientific Research Grant Regulations of the University of Aveiro.

5. Work plan: The grant holder (BI) will support research activities within the project DMi4Shrimp that include: microalgae cultivation and production of 3D biosilica microcapsules after microalgae biomass refining processes; optimizing encapsulation of bioactive molecules into the microcapsules; administration trials of bioactive microencapsulates to model shrimp species; and immunological endpoint estimation. Synthesized microcapsules, and optimization of bioactives' encapsulation protocols will be studied using Fluorescence Microscopy (FM) and High-Performance Liquid Chromatography (HPLC). Administration trials involve feeding of microencapsulate devices to shrimp post-larvae, and post-ingestion dynamics assessment via FM. Immunological parameters in shrimp will be assessed after short-term challenge tests using standardized spectrophotometric protocols. The objectives to be accomplished by the BI include the: i) successful production of biosilica microcapsules suitable for bioactives' encapsulation; ii) optimization of encapsulation protocols of designated bioactives within the microcapsules core; iii) assessment of the effectiveness of oral delivery and immunostimulatory potentials of bioactive microencapsulates fed to shrimp.

6. Applicable legislation and regulations: Research Fellow Statute, as amended by Decree-Law No. 123/2019, of August 28th; Scientific Research Grant Regulation of the University of Aveiro, Regulation No. 292/2020, published in Diário da

República No. 61, Series II, of March 26th; Decree-Law No. 66/2018, of August 16th (Legal regime of recognition of academic degrees and diplomas of higher education awarded by foreign higher education institutions).

7. Workplace: The work will be carried out at ECOMARE - the Laboratory for Innovation and Sustainability of Marine Biological Resources of the University of Aveiro, under the scientific supervision of Dr. Anthony Peter Moreira.

8. Duration of the grant: The grant duration will be 6 months, starting in May of 2025, and can be renewed up to an additional 6 months. Under no circumstances shall it exceed the limits defined in nos. 5 and 6 of article 9, of Regulation no. 292/2020, of February 28th, published in Diário da República, no. 61, Series II, of March 26th (Scientific Research Grant Regulation of the University of Aveiro).

9. Amount of monthly maintenance allowance: The amount of the grant corresponds to **€990,98**, according to the table of values of monthly maintenance allowances, set out in *Appendix III of the Scientific Research Grant Regulation of the University of Aveiro*, subject to any updates that may occur and are applicable. The fellow may also be reimbursed for the amount corresponding to the Voluntary Social Security, in case of adherence to this plan.

10. Selection methods: The selection methods to be used will be the following: i) curriculum vitae (CV) evaluation and merit including BSc and MSc average grades (60%); ii) candidate experience in research activities relevant to the project (25% - corresponding to the sum of candidate's experience in research Topics (Tn) defined in point 3 - valued at 5% each Tn); and iii) motivation letter (15%). The jury reserves the right to interview 20% of the most qualified candidates through videoconference. In such case, the selection criteria will be recalculated as follows: i) curricular evaluation (CV) (50%); ii) candidate experience in research Topics (Tn) defined in point 3 (25%); iii) motivation letter (5%); and interview (20%). Assessment of candidates' communication skills in English may be held as tiebreaker factor.

The jury reserves the right not to award the research grant if none of the candidates reach a minimum final classification of 15.0 points (scale from 0 to 20 points).

11. Composition of the Selection Jury: The selection jury will include the *Chair*, Prof. Amadeu M.V.M. Soares (Full Professor, CESAM & Department of Biology, University of Aveiro), the permanent members: Dr. Anthony Moreira, (Junior Researcher, CESAM & Department of Biology, University of Aveiro), Dr. Diana Madeira (Assistant Researcher, CESAM & Department of Biology, University of Aveiro), and Dr. Johannes Goessling (Junior Researcher, CESAM & Department of Biology, University of Aveiro), and the alternate members: Dr. Ricardo Calado (Coordinating Researcher, CESAM & Department of Biology, University of Aveiro); and Dr. Paulo Cartaxana (Assistant Researcher, CESAM & Department of Biology, University of Aveiro).

12. Deadline for applications and how to submit applications: The call is open from the 21st of February 2025 to the 7th of March 2025, only applications submitted within the deadline will be admitted.

Applications must be formalized by sending a letter of application accompanied by the following documents: Curriculum Vitae, certificates of qualifications, motivation letter, and other supporting documents deemed relevant to prove experience relevant to the workplan activities described in points 2 and 5 (e.g., scientific papers, posters or oral communications, certificates or recommendation letters).

Candidates shall also indicate the e-mail address to which, by such indication, they accept to be notified for all purposes within this procedure.

Applications should be sent by e-mail to cesam-bolsas@ua.pt, with the email subject "Bolsa de Investigação | DMI4Shrimp".

13. Form of publication/notification of results: The results of the evaluation shall be made public no later than 60 working days after the closing date for submission of applications and shall be notified to the applicants. The candidates are informed, in a prior hearing, under the terms established in the Code of Administrative Procedure, of the probable meaning of the final decision, and may, within 10 working days of this notification, express their opinion on this decision. The final results may be appealed to the Rector, to be submitted within 10 working days from the respective notification.

14. Tender duration: The final ranking list of candidates will be valid until 31st of December 2025 for the purpose of constituting a reserve list for selection.

The models of the grant contract and of the final report to be prepared by the grant holder and the supervisor are available at [Research fellows - sgrh - Universidade de Aveiro \(ua.pt\)](#).

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