

Reference: BI-2/CESAM/DMi4Shrimp/2025

NOTICE FOR THE AWARD OF GRANTS IN THE SCOPE OF R&D PROJECTS AND INSTITUTIONS

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

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

2. Funding Source: Foundation for Science and Technology, I.P./MCTES, through national funds (PIDDAC)

3. Admission Requirements: Master Degree (MSc) in Aquatic Biological Resources (*enrolled in courses that do not confer academic degree integrated in a Higher Education Institutional project*).

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.

Note: The candidacy must indicate the course that does not confer academic degree designation, date of inscription and duration. The course must be aligned with the scientific area of the candidate's profile, and its duration aligned with that of the RG.

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

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 an integrated master's degree, master's or doctoral program or 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 as amended by Decree-Law no. 123/2019, of August 28th, as well as nos. 1 and 2 of article 6 of the Research Grant Regulations of the Foundation for Science and Technology. The RG(s) awarded to undergraduate or master students enrolled in courses that do not confer academic degree may only be granted to those who do not exceed, upon conclusion of the grant contract in question, including possible renewals, an accumulated period of two years in that type of grant, consecutive or interpolated, under the terms of no.5 of article 6 of the aforementioned Regulations.

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: Statute of Scientific Research Grant Holder, as amended by Decree-Law no. 123/2019, of August 28th; Regulation no. 950/2019, of November 29th, published in Diário da República, no. 241, Series II, of December 16th (FCT, I.P. Research Grants Regulation); Decree -Law no. 66/2018, of August 16th (Legal regime for 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 July of 2025, and may be renewed for additional periods of 6 months, up to the maximum limit of approved funding. Under no circumstances shall it exceed the limits defined in nos. 3 and 4 of article 6, of Regulation no. 950/2019, of November 29th, published in Diário da República, no. 241, Series II, of December 16th (Research Grants Regulation of FCT, I.P.).

9. Amount of monthly maintenance allowance: The amount of the grant corresponds to €1309,64, according to the table of monthly maintenance allowance amounts set out in Annex I of Regulation no. 950/2019, subject to any updates that may be applicable, under the terms of no. 2 of article 18 of Regulation no. 950/2019, of November 29th, published in Diário da República, no. 241, Series II, of December 16th (Research Grants Regulation of FCT, I.P.). 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 28 may to the 11 June 2025, and 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 final results of the evaluation will be published through an ordered list by final mark obtained posted on the University's website, within 90 working days after the final date of submission of the application, and the successful candidate will be notified by email. For the purposes of prior hearing of interested parties, the deadline of 10 working days is set, as provided for in the Code of Administrative Procedure. At the end of the period for hearing the interested parties, and in the absence of any response from them, the list of candidates will become final. Candidates may lodge a complaint against the final decision within 15 working days, or appeal to the maximum executive body of the funding entity within 30 working days after notification of the final decision, in accordance with the provisions of article 12 of the Research Grants Regulation of the Foundation for Science and Technology.

14. Tender duration: The final ranking list of candidates will be valid until 31st 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 \(ua.pt\)](#).