

Reference: BI/CESAM/NanoBioEscudo/2025

NOTICE FOR THE AWARD OF RESEARCH GRANTS

A tender is hereby opened for the award of one (1) **Research Grant** (RG) under the project “*NanoBioEscudo – Next-generation of bioinspired technologies for preventing marine biofouling*” of the CESAM – Centre for Marine and Environmental Studies R&D Centre, under the following conditions:

1. Scientific Area: Biological Sciences or Marine Sciences.

2. Financing Source: ANI – Agência Nacional de Inovação, S.A., through Portugal 2030 via Fundo Estrutural do FEDER.

3. Admission Requirements:

Graduates in Biology or Marine Sciences *enrolled in courses that do not confer academic degrees integrated into the educational project of the University of Aveiro.*

Previous experience in microalgae culturing techniques and/or ecotoxicological testing using microalgae species, nanomaterial characterization and/or quantification of biomolecules in aqueous media will be highly valued.

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

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 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 (GH) will participate in research activities of the NanoBioEscudo project, mainly under Activity nr. 3, involving microalgae culture and microalgal biomass downstream processing protocols for the production of biosilica nanomaterials suitable for the immobilization of biomolecules (Natural Anti-Foulant Agents, NIAFs). The GH will study raw biosilica nanomaterials using SEM and Confocal Microscopy techniques and will also optimize and test protocols to immobilize selected NIAFs within the biosilica nanomaterials. The effectiveness of immobilization protocols will be analyzed using high-performance liquid chromatography (HPLC), X-ray diffraction (XRD), and Fourier transform infrared spectroscopy (FTIR). Screening tests of novel products regarding their ecotoxicity towards marine

organisms and antibiofilm efficacy tests may also be punctually requested under Activity nr. 4. The objectives to be accomplished include the: i) successful production of biosilica nanomaterials suitable for NIAFS immobilization; ii) optimization of immobilization protocols of designated NIAFS within the biosilica nanomaterial, including the development and optimization of analytical methods that enable the study of NIAFS immobilization success; iii) integrative assessment of the novel products (biosilica nanomaterials loaded with NIAFs).

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 mainly carried out at the ECOMARE, in the Laboratory for Innovation and Sustainability of Marine Biological Resources of the University of Aveiro, under the scientific supervision of Dr. Anthony Peter Moreira. If needed, ecotoxicological and anti-biofilm screening testing will be carried out at the CESAM & Department of Biology under the scientific co-supervision of Dr. Roberto Martins and Prof. Dr. Ângela Cunha, respectively.

8. Duration of the grant: The grant duration will be 12 months, starting in May of 2025, and cannot be renewed. 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: curriculum vitae assessment with respective value of 100%, based on academic qualifications and respective final mark (50%) and proven experience in *marine microalgae culturing techniques and/or ecotoxicological testing (at least, microalgae growth inhibition tests)* (30%), *nanomaterial characterization and/or quantification of biomolecules in aqueous media using relevant techniques* (e.g., XRD, FTIR, UV-Vis, HPLC) (20%).

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. Roberto Martins (Assistant Researcher and local coordinator of Project NanoBioEscudo, CESAM & Department of Biology, University of Aveiro), and Prof. Ângela Cunha (Associate Professor with Habilitation, CESAM & Department of Biology, University of Aveiro) and the alternate members: Dr. Luísa Magalhães (Junior Researcher, CESAM & Department of Biology, University of Aveiro); João Tedim (Associate Professor, CICECO & Department of Materials and Ceramic Engineering, 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, 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, certificate of qualifications, and other supporting documents deemed relevant to prove experience on the aspects stressed in item number 10 (e.g., scientific papers, posters or oral communications, certificate or letters attesting eventual technical/scientific training in an academic or industrial environment, recommendation letter(s) from former supervisors supporting your application and clearly showing evidence of your experience).

They 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 | NanoBioEscudo”.

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 \(ua.pt\)](#).