

ANNOUNCEMENT FOR THE AWARD OF A POST-DOCTORAL RESEARCH

Title: Post-Doctoral Research Fellowship- Vinny; 1 vacancy

Reference: 101130039_VINNY_BIPD_01/2026-CMEMS (1)

A call for applications is now open for the attribution of one (1) grant of Post-doctoral research within the scope of the I&D project **“Vinny – Advanced nano encapsulation of bio-based pesticides and fertilisers for a circular and sustainable viticulture”**, reference **101130039 – VINNY**, from Center for Microelectromechanical Systems (CMEMS-UMinho), financed by European Commission through Horizon Europe Framework Programme (HORIZON), under the following conditions:

Scientific Area: Materials Engineering, Mechanical Engineering, Biophysics, Physics or related fields.

Recipient category: The BIPD are intended for PhD holders in the area of Physics, Biophysics, Materials Engineering, Mechanical Engineering or related areas, who cumulatively meet the following requirements:

Admission Requirements:

- Hold a doctoral degree obtained within three years prior to the date of submission of the scholarship application;
- To have carried out the research leading to the award of the doctoral degree in the research unit other than the one hosting the scholarship; *
- The research activities do not require post-doctoral experience;
- Not exceed, with the conclusion of the contract in question, including possible renewals, an accumulated period of three years in this type of scholarship, consecutive or interpolated;
- Not to have previously held a post-doctoral scholarship contract with the same I&D Unit. Once the BIPD contract has ended, no new scholarship contract can be signed between the same host organization and the same scholarship holder.

Candidates who do not cumulatively meet the requirements described will be excluded.

* This includes different I&D Units, even if they are based in the same UMinho Organisational Unit (UOEI) (according to n° 4 and 5 of the Article 4° of the University of Minho's Scientific Research Scholarship Regulations).

Applicants' eligibility: Candidates who meet the conditions set out in Article 8 of the University of Minho's Scientific Research Grant Regulations are eligible.

Nationals or citizens of other European Union member states, third-country nationals, stateless persons, and citizens with political refugee status are eligible to apply for this competition.

Candidate eligibility requirements:

- a) Hold a PhD in the scientific fields of Physics, Biophysics, Materials Engineering, Mechanical Engineering, or related areas;
- b) Experience in the development of biomimetic functional surfaces, by laser processing, subtractive, additive, or other, including hydrophilicity and capillarity (knowledge of natural structures like superhydrophobic lotus leaves and/or partially hydrophobic like grape leaves for spreading and capillary transport);

- c) Knowledge of chemical and physical functionalization strategies of surfaces of biomimetically produced surfaces;
- d) Knowledge of other surface modification techniques such as flame hardening for multifunctional surfaces;
- e) Experience in the analysis of materials and surfaces;
- f) Preferred factors: Proven experience in writing scientific papers;
- g) Proven experience in participation in scientific projects with competitive funding.

It is mandatory, under penalty of exclusion from the competition, to attach the following documents to the application:

- Candidate's curriculum vitae;
- Degree certificates of the academic qualifications obtained or, if applicable, a sworn statement by the candidate declaring that the required degrees specified in the call have been completed by the application deadline (not applicable to research initiation grants);
- For degrees obtained abroad, the official recognition of the academic degrees and the conversion of the final classification to the Portuguese grading scale must be submitted, or alternatively, a sworn statement by the candidate (not applicable to research initiation grants);
- Motivation letter.

Workplan and objectives to be achieved:

The BIPD are restricted in time in order to stimulate scientific employment and the use of researcher contracts as a rule for hiring them – n.º 2, article 4 of the University of Minho's Scientific Research Grant Regulations.

The work plan will consist of:

- Development of multifunctional biomimetic surfaces, by laser processing, subtractive, additive, or other, including hydrophilicity and capillarity (replicating nature-inspired structures like leaves);
- Secondary treatments like flame hardening as heat treatment to induce surface properties;
- Physicochemical analyses through SEM (porosity and density of printed parts), FTIR, XRD, Surface roughness, wettability etc.

Applicable legislation and regulations: Research Grant Holder Statute (EBI), approved by Law n.º. 40/2004 of August 18, in its current wording, and the University of Minho Scientific Research Grant Regulations (hereinafter referred to as the Regulations (RBIC)), approved by Order n.º. 4998/2025, published in the Official Gazette, 2nd series, n.º. 81, of April 28, rectified and republished through Rectification Statement n.º. 634/2025/2, published in the Official Gazette, 2nd series, n.º. 132, of July 11.

Host/Contracting institution and scientific supervision: The workplan will be carried out in the Centre of Biological Engineering (CEB) from University of Minho, located in the Gualtar Campus, under the scientific supervision of the Doctor Carla Manuela Pereira Marinho Silva, Principal Investigator from Center Biological Engineering CEB), Doctor Margarida Maria Macedo Francesko Fernandes, Assistant Researcher from Center of MicroElectromechanical Systems (CMEMS-UMinho), and Professor Filipe Samuel Correia Pereira Silva, Full Professor, Department of Mechanical Engineering, University of Minho, and coordinated by Professor Luís Miguel

Valente Gonçalves, Director of the Center for Electromechanical Microsystems at the University of Minho (CMEMS-UMinho).

Fellowship duration: The grant will take place for a period of 12 months, with a provisional starting date on the February or March 2026. The fellowship grant may, eventually, be renewed up to the maximum limit allowed by the project and/or applicable legislation.

Amount of the research grant: The amount of the grant corresponds to 1 851,00 €/month, according to the table of values of the Research Grants of the University of Minho, updated annually, as decided by the Management Board.

Payment is made on the 23rd of each month, through bank transfer to the Bank Identification Number of the fellow identified in the contractualization process.

Other components of the research grant: Define other components of the scholarships, as provided for in article 21° of the University of Minho's Scientific Research Scholarships Regulation.

Other benefits: Reimbursement of Voluntary Social Insurance, if the candidate chooses to receive it, corresponding to the 1st step of the contribution base (for scholarships of 6 months or more) and Personal Accident Insurance.

Exclusivity regime: The grantee will perform the activities under exclusivity, as foreseen in article 5° of the Research Fellow Statutes and applicable regulations.

Selection panel: The jury is composed of:

a) President of the Jury: Dr. Carla Manuela Pereira Marinho Silva, Principal Investigator, Center of Biological Engineering, University of Minho;

b) Effective Member: Dr. Margarida Maria Macedo Francesko Fernandes, Assistant Researcher, Center for MicroElectroMechanical Systems (CMEMS-UMinho), University of Minho;

c) Effective Member: Professor Filipe Samuel Correia Pereira Silva, Full Professor, Department of Mechanical Engineering, University of Minho;

d) Substitute Member: Dr. Sara Cristina Soares Madeira, Entry-level PhD researcher at the Centre for MicroElectroMechanical Systems (CMEMS-UMinho), University of Minho;

e) Substitute Member: Dr. Nuno Miguel Magalhães Dourado, Associate Professor, Department of Mechanical Engineering, University of Minho.

The first effective member will substitute the President of the selection panel in case of impediment, being nominate the first substitute member in the place of the first effective member.

Criteria and procedures for applications assessment and selection: The applications assessment will focus on the candidate's Merit, following evaluation criteria, valued on a scale of 0 to 5 values (or another scale):¹

¹ If a second evaluation method is fixed – Interview, it may not have a weighting higher than 40%, according to n° 4 of article 11° of UMinho regulation; The jury shall define whether all candidates are interviewed or identify the criterion to be applied to a set of candidates to be interviewed and its valuation (*for instance, selection of candidates ranked between the 1s and 4th position in the evaluation list of MC*(candidate merit). The jury may adjust the weightings (the assessment must be substantiated in as much detail as possible, in a clear and consistent manner).

Applicant Merit - AM (100%):

- a) Academic path (considering the classifications of academic degrees), with a weighting of 45%;
- b) Personal curriculum (considering professional and scientific background), with a weighting of 45%;
- c) Motivation letter, with a weighting of 10 %.

The final classification of the applicant's merit with the achieved through the following formula:

$$MC = (a * 0,45) + (b * 0,45) + (c * 0,10)$$

Note: Candidates with degrees obtained abroad must present proof of recognition of the qualifications in Portugal and conversion of the final classification obtained in them to the Portuguese classification scale or a declaration in the terms indicated in the previous point. Candidates who do not comply with one of these provisions will be given a mark of "0" for their degree. Candidates will be evaluated on the remaining parameters.

Application deadline and submission: The call for applications is open for a period of 10 working days from the date of publication on the Euraxess portal.

Applications must be submitted by email to margaridafernandes@cmems.uminho.pt indicating the reference number of the competition in the subject line. Only applications submitted within the established deadline and accompanied by the following documents will be accepted:

- a) Candidate's updated curriculum vitae;
- b) Certificates of the academic degrees obtained or, if applicable, the candidate's declaration of honor that he/she has completed the degrees required in the notice by the application deadline (not applicable to research initiation grants).

For degrees obtained abroad, the record of recognition of the academic degrees and record of the conversion of the respective final classification to the Portuguese classification scale must be presented, or, alternatively, a declaration of honor from the candidate.

This declaration must attest to facts that occurred prior to the application. In the event of a discrepancy between the information contained in the declaration and the documentation submitted for the purposes of contracting the scholarship, only the information contained in the latter will be considered. If it is found that the documents proving the academic degree and diploma, or their recognition under the terms of Decree-Law n. ° 66/2018, of August 16, do not correspond to the classifications awarded in the assessment of the academic career and may consequently alter the candidate's ranking, the scholarship will not be contracted;

- c) Motivation letter;
- d) Other mandatory documents to be attached at the time of application.

Note: The jury may request other documents that it considers relevant to the evaluation process.

Form of publication/notification of results: The results of the evaluation are published in a single list (in alphabetical order or by final score obtained), posted in a visible and public place in the host unit, as well as by email to all candidates, attaching, for this purpose, the minutes of the jury's deliberations, within a maximum period of 60 working days from the deadline for submission of applications.

Candidates are informed, at a preliminary hearing, in accordance with Articles 121 and 122 of the Administrative Procedure Code, of the likely outcome of the final decision, and may comment within 10 working days of this notification.

(The waiver of the hearing for interested parties must be justified in accordance with Article 124 of the CPA).

An appeal may be lodged against the final decision within 15 working days, or an appeal may be lodged with the highest executive body of the funding entity within 30 days, both after the respective notification (Article 12(n°6) of the FCT Research Grant Regulations).

Within 10 working days of notification of the grant award, the applicant must declare their acceptance in writing. In case of non-acceptance, the next highest ranked applicant will be notified immediately.

Fellowship contractualization: The scholarship is awarded through the signing of a contract between the University of Minho and the scholarship recipient, in accordance with the draft contract in Annex II of the University of Minho Regulations (RBIC).

The contract can only be signed after receipt of all the documentation required for the type of scholarship, which must occur within a maximum period of 6 months, including proof of academic degrees or diplomas, as well as enrollment in non-degree study cycles or courses, as applicable.

Once all the documentation has been received, the contracting entity has 60 working days to sign the scholarship contract, in accordance with n°3 of the Article 14° the University of Minho Regulations (RBIC).

Term and cancellation of fellowship contracts: Without prejudice to the other grounds laid down in the University of Minho's Regulations for Scientific Research Scholarships and in the Research Fellow Statute, the scholarship will cease on completion of the contracted work plan, as well as on expiry of the period for which it was granted or renewed.

The **final report** must be submitted to the scientific advisor, in accordance with the defined objectives and evaluation criteria, no later than 60 working days after the end of the scholarship and must be drawn up in accordance with Annex I of the Regulations of the University of Minho.

Non-discrimination and equal access policy: University of Minho actively promotes a policy of non-discrimination and equal access, so that no candidate may be privileged, benefited, harmed or deprived of any right or exempt from any duty due, namely, to ancestry, age, sex, sexual orientation, marital status, family status, economic situation, education, social origin or condition, genetic heritage, reduced working capacity, disability, chronic illness, nationality, ethnic origin or race, territory of origin, language, religion, political or ideological convictions and trade union membership.

Declaration of Honor

Academic qualifications

I, (full name), candidate for the vacancy for the award of a (type of scholarship), within the scope of the project (name or reference of the project), published on the Euraxess portal, with the reference (ref. notice), declare on my honor that I have completed the academic degree of (academic degree), qualifying for the type of scholarship in the competition, namely the course (designation), by the (University conferring the degree), on the date XX/XX/XXXX, with a final average of XXXXX values on the YY scale.

As it is not possible for me to present proof of qualifications until the end of the competition, I declare that I undertake to present the aforementioned certificate at the conclusion of the scholarship contract, in the event that I am selected for the vacancy in the competition.

As this is true, I hereby date and sign this declaration.

(Place), (date)

(full name)

NOTE: The declaration may only attest to facts that occurred prior to the application.

In the event of a discrepancy between the information contained in the declaration and the documentation submitted for the purpose of contracting the scholarship, only the information contained in the latter will be taken into account.

Declaration of Honor

I, (full name), bearer of identification document number (XXXX), candidate for a research grant (type of grant), within the scope of the project (name or reference of the project), published on the Euraxess portal, with the reference (ref. call for proposals), declare on my honor that (I have not received any research grants to date / I have received the following research grants) under the Research Grant Holder Statute.

University	Funding Entity	Project	Type of Grant	Duration	Start	Term

As this is true, I hereby date and sign this declaration.

(Place), (date)

(full name)