

DRAFT ANNOUNCEMENT FOR THE AWARD OF A RESEARCH FELLOWSHIP

Title: Non-conferring Research Fellowship for Masters_ OoCDOXSens;1 vacancy

Reference: 2024.05146.RESTART_BI-02/2025-CMEMS

A call for applications is now open for the attribution of one (1) grant for non-conferring research fellowship for Masters, within the scope of the I&D project, of Center for Microelectromechanical Systems(CMEMS-UMinho), “OoCDOXSens - Organ-on-a-chip platforms integrated with Microneedles and Photoacoustic detection for drug delivery system precise monitoring”, ref.^a 2024.05146.RESTART, financed by national funds through the Foundation for Science and Technology, I.P. (FCT), through the RESTART Programme, under the following conditions:

Scientific Area: Electronic Engineering or and related areas.

Recipient category: Master enrolled in a non-academic degree courses

Requirement for granting the fellowship:

- The applicants may apply without prior registration in the course for which the fellowship is open. The requirement to enroll in a degree course or non-academic degree course will be verified on the date of contracting the fellowship;
- Only fellowships whose selected applicants present a valid proof of enrollment in a degree course or non-academic degree course will be contracted, according to the type of the fellowship, issued by a Higher Education Institution, indicating, respectively, the academic year or its duration (star and term).

Applicants' eligibility: Candidates who meet the conditions set out in Article 9 of the Research Grant Regulations, No. 950/2019, of 16-12-2019, of FCT I.P. 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) Mandatory requirements:
- Candidates must have, at the date of application, a master's degree in industrial electronics and computers engineering. It is required for contractualization, proof of academic qualifications completed at the deadline for applications, including those resulting from academic degree recognition processes;

-Candidates enrolled in non-conferring degree courses: who have already benefited from a BI for a period of 2 years followed or interpolated, or who exceed this period with this grant, cannot benefit from this scholarship;

b) Preferential requirements:

- Training and experience in electronic and microelectronic circuit design;
- Experience in electronics, instrumentation and sensors;
- Experience in the implementation of photoacoustic detection systems;
- Experience in microcontroller programming for control, data acquisition, and communication.
- Capacity for initiative and good teamwork skills;
- Knowledge of the English language spoken and written.

Workplan and objectives to be achieved:

The activity to be developed will focus on the implementation of a highly sensitive photoacoustic system for monitoring drug release in organ-on-a-chip (OoC) devices, within the scope of the research project. The main objectives and expected outcomes are as follows:

- Analysis of the state-of-the-art photoacoustic monitoring methodologies.
- Selection and characterization of the most suitable miniaturized acoustic transducers (CMUT vs. PMUT) for photoacoustic detection, aiming at their integration into microfluidic devices.
- Development of actuation and readout electronics for the implemented system.
- Experimental tests to validate the developed platform using the drug of interest (anticancer drug doxorubicin).

Applicable legislation and regulations: Research Fellow Statute (EBI), approved by Law n.º 40/2004 of August 18, in its current wording and FCT Research Fellowship Regulation, approved by Regulation n.º 950/2019, published in the Diário da República, 2nd series, of December 16, 2019, in its current wording, and Scientific Research Fellowship Regulation (RBIC) of the University of Minho, approved by order n.º 4998/2025, published in the Diário da República, 2nd series, n.º 81, of April 28, 2025 Amended and republished through amendment statement no. 634/2025/2, published in the Official Gazette, 2nd series, no. 132, of July 11.

Host/Contracting institution and scientific supervision: The workplan will be carried out in the Center for Microelectromechanical Systems of University of Minho, located in the Campus de

Azurém, Guimarães, under the scientific supervision of the Doctor Vânia Cristina Gonçalves Pinto and Doctor Paulo Jorge Teixeira de Sousa and coordination of Professor Luís Miguel Valente Gonçalves.

Fellowship duration: The grant will take place for a period of 10 months, with a provisional starting date on the February of 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 1 309,64 €/month, according to the table of values of the Research scholarship 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 18º of the FCT Research Scholarship Regulations (RBI).

Other benefits: Reimbursement of Voluntary Social Insurance, if the candidate chooses to receive it, corresponding to the 1st level of discounts (for research grants with a total duration 6 months or higher) and personal accident insurance.

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

Selection panel: The selection panel has the following composition:

President – Doctor Diana Margarida Domingues de Pinho (Doctoral Researcher of Center for Microelectromechanical Systems of University of Minho)

Effective members: Doctor Vanessa Fernandes Cardoso (Assistant Researcher of Center for Microelectromechanical Systems of University of Minho) and Doctor Eliana Maria Fernandes Vieira (Assistant Researcher of Center for Microelectromechanical Systems of University of Minho);

Substitute members: Doctor Vânia Cristina Gonçalves Pinto (Doctoral Researcher of Center for Microelectromechanical Systems of University of Minho) and Doctor Paulo Jorge Teixeira de Sousa (Doctoral Researcher of Center for Microelectromechanical Systems of 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:

Applicant Merit - AM (100%):

- a) Academic path (considering the classifications of academic degrees), with a weighting of 30%;
- b) Personal curriculum (considering professional and scientific background), with a weighting of 50%;
- c) Proven knowledge of the preferred requirements described in item b) of the Eligibility Requirements of the Application, with a weighting of 10%;
- d) Motivation letter, with a weighting of 10%.

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

$$MC=(a*0.30) +(b*0.50) +(c*0.10) +(d*0.10)$$

Note: Applicants with degrees obtained abroad must present proof of recognition of qualifications in Portugal and conversion of the final classification obtained in them to the Portuguese classification scale or declaration under the terms indicated in the previous point. Candidates who do not comply with one of these provisions, the selection panel will assign "0" in the grade of the graduation and/or master course. 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.

Note: The deadline for submitting applications shall not be less than 10 working days.

Applications must be submitted by email to secretaria@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;

¹ If a second evaluation method is fixed – Interview, it may not have a weighting higher than 40%, according to nº 4 of article 11º 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 interview 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).

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.º 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;

- b) Letter of motivation;
- c) Other mandatory documents to be attached at the time of application.

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 90 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(nº6) 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.

Constitution of a selection reserve list: The applicants ranked in the next positions on the ordered list will be included in a selection reserve list, which can be used until 31/03/2023.

Fellowship contractualization: The scholarship is awarded through the signing of a contract between the University of Minho and the scholarship recipient, in accordance with point 2.4 of the Rules for the Award and Management of Scholarships

https://www.fct.pt/wpcontent/uploads/2022/03/Normas_de_Atribuicao_de_Bolsas_2021.pdf and the draft contract in Annex II of the University of Minho's Scientific Research Scholarship Regulations.

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. Once received by the scholarship holder, the contract must be returned, duly signed, within 15 working days.

Term and cancellation of fellowship contracts: Without prejudice to the other grounds laid down in the University of Minho's Scientific Research Scholarship Regulation 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: Universidade do 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	Financing Entity	Project	Type of Grant	Duration	Start	Term

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

(Place), (date).

(full name)