

## **DRAFT ANNOUNCEMENT FOR THE AWARD OF A RESEARCH FELLOWSHIP**

### **Title: (Research Fellowship; 3 vacancies)**

A call for applications is now open for the attribution of 3 (three) research grants within the scope of the Research Line number 3 R&D project "Functional and smart materials and surfaces for advanced applications", UIDB/04650/2020, from the research unit Centre of Physics of the Minho and Porto Universities, financed by national funds through FCT/MCTES and national funds (PIDDAC), through the Operational Program (designation of the PORTUGAL 2020 Operational Program).

**Scientific Area:** Physics, Physics Engineering, Materials Engineering

**Recipient category:** Candidates must have, at the time of application, a Bachelor's or Master's degree in Physics, Materials Science, or related fields.

#### **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 the academic services of the Higher Education Institution, indicating, respectively, the academic year or its duration (star and term).
- Enrollment in non-certified courses (without curricular units) will not be considered as proof of enrollment.

**Candidates profile:** On the date of the respective hiring, candidates must prove enrollment in one of the following courses:

- PhD (in the area or area related to that requested in the notice);
- Masters/Integrated Masters (in the area or area related to that requested in the notice);
- Masters enrolled in courses that do not confer an academic degree, integrated in the educational project of a higher education institution, in the area or area related to that requested in the notice (eg: postgraduate studies, advanced studies, specialized training).

**Applicants eligibility:** Applicants must comply with the eligibility conditions laid down in article 9 of the Research Grants Regulation of the Portuguese Foundation for Science and Technology (2019).

**Workplan and objectives to be achieved:** It is intended that the fellows carry out research in Physics and/or Science and Technologies of Materials within the scope of the research line number 3: "Functional and smart materials for advanced applications", preparing and studying materials in the form of thin films, thick films or nanostructured in order to obtain the physical and technological characteristics of these materials or participate in the development of devices for the preparation or study of materials. The study of materials can include computer simulations and modelling. Scholarship holders will have the opportunity to become familiar with advanced techniques in the characterization of materials and/or their modelling, on one of the following projects:

- Ferroelectricity in thin films of binary oxides for capacitors that store energy.
- Design of electro and magneto-active microgels for the study of tumour microenvironments.
- Study of transparent thermoelectric thin films for thermal energy capture.
- Printable magnetic materials and solutions for the 4.0 industry: 4MagInk.

- Preparation and optimization of dry and flexible high-performance nanoelectrodes for monitoring and muscle biostimulation integrated in elderly rehabilitation.
- New generation of anodes for lithium ion batteries based on thin films of niobium oxide.

**Applicable legislation and regulations:** Research Fellowship Holder Statutes, approved by Law no. 40/2004 of August 18, in its current version published by Decree-Law no. 123/2019 of August 28; Regulation of Scientific Research Fellowships of the University of Minho (RBIC), published in “Diário da República”, 2nd serie, no. 119, through dispatch no. 6524/2020 of 22-06-2020, ratified by ratification declaration no. 447/2021 of 22-06-2021 and Regulation of Research Studentships and Fellowships (RBI) of the Foundation for Science and Technology, I.P. - in force.

**Host/Contracting institution and scientific supervision:** The work will be developed at the Physics Center of the University of Minho, in Gualtar or Azurém, on an exclusive basis, and under the scientific guidance of an experienced doctoral researcher, working within the scope of the strategic line “Functional and smart materials for advanced applications”.

**Fellowship duration:** Each scholarship will last for 10 months, starting in December 2021. The scholarship is non-renewable.

**Amount of the research grant:** The value stipend (Monthly Maintenance Allowance) per month is:

- PhD students: 1,104.64 euros
- Masters enrolled in non-academic degree courses: 1,104.64 euros
- Masters or Integrated Masters students: 835.98 euros

in accordance with the stipends values published by the Foundation for Science and Technology (FCT I.P.) in the country (Annex I – Monthly Stipends Values for the maintenance allowances of the [FCT Regulation for Research Studentships and Fellowships](#)) and Annex II of the Regulation of Scientific Research Fellowships of the University of Minho (RBIC), published in “Diário da República”, 2nd serie, no. 119, through dispatch no. 6524/2020 of 22-06-2020, ratified by ratification declaration no. 447/2021 of 22-06-2021, according to the applicable regulation.

Payment is made on the 23st of each month, through bank transfer to the Bank Identification Number

**Other benefits:** Reimbursement of Voluntary Social Security (Social Security contributions), 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 5° of the Research Fellow Statutes and applicable regulations.

**Selection panel:**

- President: Manuel Filipe Pereira Cunha Martins Costa, Auxiliary Teacher, Department of Physics, School of Science of the Minho University;
- Effective member: Cacilda Maria Lima de Moura, Auxiliary Teacher, Department of Physics, School of Science of the Minho University and Stanislav Lazarov Ferdov, Investigator Auxiliary; Physic Center; School of Science of the Minho University;
- Substitute member: Luis Manuel Fernandes Rebouta, Associate Professor Whith Aggregation, Department of Physics, School of Science of the Minho University and Luís António Gachineiro da Cunha, Auxiliary Teacher, Department of Physics, School of Science of the Minho University;

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 1 to 5:

Applicant Merit - **MC**:

- a) Academic path (considering the classifications of academic degrees), with a weighting of 50%;
- b) Personal curriculum (considering professional and scientific background), with a weighting of 50%

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

$$\mathbf{MC=(a\times 0.5)+(b\times 0.5)}$$

The jury may resort to conducting a selection interview (**ENT**) to the six candidates with the best classification and who have obtained a minimum classification of 3.5 in the **MC**.

The candidate's final classification (**CF**) will be obtained by applying the following formula:

$$\mathbf{CF=(MC\times 0.8)+(ENT\times 0.2)}$$

The academic degrees and diplomas documents, or their respective recognition when awarded by foreign higher education institutions are not mandatory in the application phase, being replaced by a declaration of honour of the candidate with the contents of academic results. The documents of academic qualification or respective recognition will be required in the contracting phase and must attest facts that occurred on a date prior to the application. In situations of divergence between the information contained in the declaration and the documentation submitted for contracting the grant, only the information contained in the latter will be considered. If the documents proving the ownership of the academic degree and diploma, or the respective recognition under the terms of Decree-Law No. 66/2018, of August 16, do not correspond to the classifications awarded in the evaluation of the academic path, which can change the candidate's ranking, the fellowship won't be contracted.

***Notes:** 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.*

**Disclosure of results:** The provisional results of applications, based in the selection panel minutes, will be sent to the applicants by email until 90 working days from the applications deadline.

If case of unfavourable results, the candidates have a period of 10 working days to comment, if desired, in a prior hearing to interested parties, pursuant to articles 121 and 122 of the Code of Administrative Procedure (DL no. 4 / 2015 of January 7th).

**Complaint and appeal procedures:** The final results of the evaluation will be published through an ordered list (*alphabetically, by final grade obtained*), posted in a visible and public place of the host unit, as well as by email to all applicants, enclosing for that purpose, the minutes of the jury deliberations.

The selected candidate must inform its willingness to accept the grant, in writing. In case of rejection, the fellowship will be awarded to the next candidate in the ordered list of applicants.

The final decision can be contested within 15 working days, by sending to the President of the jury the corresponding claim. Interested parties may also submit an optional hierarchical appeal, addressed to the Pro-Rector for Research and Projects, Professor Filipe Vaz.

**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 10/31/2022.

**Application deadline and submission:** The call for applications is open from October 4 till October 18 2021.

Applications must be formalized by sending an application letter with the following documents: curriculum vitae; qualifications certificate or declaration of the applicant; motivation letter; statement proving that meets the conditions for the grant typology, according to the application requirements; other documents important to the evaluation process).

Applications must be sent by email to ([bolsas@ecum.uminho.pt](mailto:bolsas@ecum.uminho.pt)), indicating the reference of the call for applications (**010/ECUM/CFUM/2021 – UIB/04650/2021-L3**) in the Subject line. Applications submitted by other means will not be accepted.

**Fellowship contractualization:** The fellowship will be attributed by signing a fellowship contract between the University of Minho and the fellow, accordingly with the contract minute (annex IV of the Regulation of Research Fellowships of the University of Minho (RBIC), published in *Diário da República, 2nd Série, no. 119*, through dispatch no. 6524/2020 of 22-06-2020, ratified by ratification declaration no. 447/2021 of 22-06-2021, as indicated in 2.4 of the FCT document: “Rules for Granting and Management of Grants within the scope of R&D projects, including infrastructure projects, the multi-annual financing program for R&D units and other FCT financing instruments (Version 2021)”.

The contract may only be concluded after all the documentation required is collected, which must take place within a maximum period of 6 months.

Once all the documentation has been received, the contracting entity has a period of 60 working days to conclude the scholarship contract. Once received, the fellow must return the contract duly signed within 15 working days.

The activities under the fellowship contract can only began after proper authorization by the contracting entity.

**Term and cancellation of fellowship contracts:** Without prejudice to the other causes provided the fellowship regulations (FCT and UMinho) and in the Statute of the Research Fellow, the fellowship ends with the completion of the work plan, as well as with the expiration date for which it was granted or renewed.

At the end of the fellowship, the grantee is obliged to present a Final Report of the work carried out, in accordance with the objectives and evaluation criteria defined with the scientific advisor, within 30 days after the end of the scholarship.

The **final report** must be prepared in accordance with Annex I of the Scientific Research Fellowships Regulation of the University of Minho (RBIC), published in *Diário da República, 2nd Série, no. 119*, through dispatch no. 6524/2020 of 22-06-2020, ratified by ratification declaration no. 447/2021 of 22-06-2021.