

## **PUBLIC NOTICE FOR A RESEARCH SCHOLARSHIP**

**CONTEST CODE – PRBI/17/2025**

IPC/ i2A is now accepting applications to award 1 **Research Scholarship** (BI) within the scope of the project “SOLar driven photoCATalysis using magnetic photosensitizers: a sustainable approach for the elimination of antibiotics from wastewater”, reference 2023.12723.PEX, funded by Fundação para a Ciência e Tecnologia (FCT), as follows:

**Scientific area:** Earth and Related Environmental Sciences; Environmental Sciences

### **Requirements:**

- A. Holders of a bachelor’s degree in Environmental Sciences or in related areas within the past two years;
- B. If the candidate holds a higher education degree obtained abroad, he/she must have the respective degree recognition, if applicable;
- C. Enrolment in a master’s degree or be a graduate or master enrolled in a non-degree course;
- D. The following will be considered preferential factors for selection: (i) having laboratory experience in effluent analysis; (ii) having experience in the chemical characterization of effluents, namely in the determination of total organic carbon, nitrogen, phosphorus, among others; (iii) having experience in the validation of analytical methods.

If enrolled in a course that does not award an academic degree, the candidate cannot exceed an accumulated period of one year in this type of scholarship, according to the Research Scholarship Regulation of the Polytechnic Institute of Coimbra, approved by Order No. 5963/2020, published in the DR, 2nd series, No. 106, of June 1, 2020, rectified by Rectification Declaration No. 742/2020, published in the DR, 2nd series, No. 212, of October 30, 2020.

### **Work Plan:**

The scholarship will aim to use solar radiation as a way to eliminate antibiotics from effluents through the process of photodegradation using solar radiation. The aim is to produce carbon-based photocatalysts capable of accelerating the photodegradation process, making their use in continuous effluent treatment systems possible.

Thus, the present scholarship will have the purpose of implementing and developing the following activities:

1. Literature review on the work to be developed
2. Synthesis of carbon-based photocatalysts using biomass residues
3. Evaluation of the photocatalytic capacity of the prepared materials for the removal of antibiotics
4. Evaluation of the recovery and reuse of the photocatalyst prepared
5. Evaluation of the antibacterial activity before and after photocatalysis treatment
6. Writing of a technical report and writing of scientific article(s) for submission to international peer-reviewed journal(s).

**Scholarship Length:**

The scholarship, on an exclusive basis, has a duration of 8 months, non-renewable, scheduled to start on 01/10/2025 and finishing on 31/05/2026.

**Monthly Maintenance Allowance:**

1040,98 euros, according to the table of scholarships amounts awarded by FCT to positions held in Portugal ([https://www.fct.pt/wp-content/uploads/2025/02/Tabela\\_valores\\_SMM\\_2025.pdf](https://www.fct.pt/wp-content/uploads/2025/02/Tabela_valores_SMM_2025.pdf)). The payment will be made by bank transfer monthly, to the account to be designated by the Fellow. To this amount is added the voluntary social insurance corresponding to the first tier, and a workplace accident insurance contract.

**Workplace:**

The work will be developed at Coimbra Health School, under the scientific supervision of Prof. PhD Diana Luísa Duarte de Lima.

**Selection Criteria:**

Applications will be assessed on a scale of 0 to 20 points, based on:

i) curriculum assessment, with the following weighting:

a) 40% for academic qualifications (AC1),

b) 50% for scientific activity previously developed according to: i) previous experience in laboratory work related with effluent analysis; ii) experience in the chemical characterization of effluents, namely in the determination of total organic carbon, nitrogen, phosphorus, among others; iii) experience in validation of analytical methods (AC2);

c) 10% for the cover/motivation letter (AC3);

ii) interview (to be held only if the jury considers that the curriculum evaluation is not sufficient for the selection of candidates; in this case, only the three candidates with the highest score in the curriculum evaluation will be called for an interview). If there is an interview, this will have a weighting of 40% in the final grade, while the curriculum evaluation will have a weighting of 60%.

All scientific activities must be duly documented through appropriate documentation, publications or scientific communications described in the CV.

The selection panel reserves the right not to select any candidate if none of them has the appropriate profile to perform the duties. Candidates who obtain a score lower than 13 points will be excluded.

**Jury of Selection:**

President: Prof. PhD Diana Luísa Duarte de Lima

Vogals: Prof. PhD Ana Paula Gomes Fonseca;

Prof. PhD Carla Patrícia Gonçalves Silva

Substitutes: Prof. PhD Olga Manuela Simão Filipe

Prof. PhD Nádia Isabel de Almeida Osório

**Mandatory documents:**

- a) Application form available on the internet page for this competition at [https://www.ipc.pt/bupc/concursos/form/concursos\\_bolseiros](https://www.ipc.pt/bupc/concursos/form/concursos_bolseiros)
- b) Identification, residence, identification document number and tax identification number;
- c) Motivation letter, in which the candidate must explain his/her motivation to carry out this multidisciplinary work plan, as well as mention if he/she is available to start the scholarship on schedule date;
- d) Updated *Curriculum Vitae* of the candidate, with a description of the qualifications;
- e) Document(s) proving that the candidate holds the academic degree and/or diploma(s) required in the competition. Applicants with foreign qualifications must provide proof of their foreign degree and diploma in accordance with Decree-Law no. 66/2018, of 16 August;
- f) Document(s) proving all activities and work mentioned in the Curriculum Vitae
- g) Document proving enrolment and registration in the master's degree or non-degree course;
- h) Other document(s) and/or certification(s) considered relevant by the candidate (e.g.: training certificates, letters of recommendation, other research grants obtained).
- i) (optional at the application stage). Candidates with academic degrees obtained abroad must present a Certificate of Recognition, in accordance with applicable legislation. This document is only mandatory at the hiring stage.

**Deadline of Application Submission:**

The application period will be of 10 working days, starting on **20/06/2025 and ending on 03/07/2025**.

Candidates must access and register on the website: [https://www.ipc.pt/bupc/concursos/form/concursos\\_bolseiros](https://www.ipc.pt/bupc/concursos/form/concursos_bolseiros) to submit the application, selecting the procedure for which they intend to apply.

Applications must be delivered exclusively in digital format, in portable document format (pdf), with the exception of documents whose delivery is scheduled in other digital formats.

Application instructions are completed by filling in the sections available at the aforementioned link.

When formalizing the application, if it contains a classified document that reveals commercial or industrial secrets, or secrets relating to literary, artistic or scientific property, the candidate must expressly indicate such reservation, under penalty of the work in question being freely accessed by any one of the other candidates, in consultation with the process.

When submitting the application, the candidate must provide the data strictly necessary for the purpose, under the terms of this public notice, and must hide personal data that may exist in the documentation submitted, otherwise these data may be freely accessed by any of the other candidates, in the process query.

**Legislation and applicable Regulation:**

The award of this fellowship is based on Law 40/2004, of the 18th of August (Estatuto do Bolseiro de Investigação Científica), changed and republished by the Decree-Law 202/2012, of the 27th of August, updated by: Decree-Law 233/2012, Law 12/2013, Decree-Law 89/2013 and Decree-Law 123/2019; the Regulation of the research scholarships from the Fundação para a Ciência e a Tecnologia, I. P. and the Regulation of the Research Scholarships

from Polytechnic of Coimbra Order nº 5963/2020.

**Information of Results:**

The results of the evaluation will be published within 90 working days from the deadline for submission of applications, by sending a communication to the candidates, via email. After the results have been published, candidates will be notified to, if they wish, give their opinion in a prior hearing within a maximum of 10 working days after that date. After this deadline, the selected candidates will have to declare their acceptance in writing. Unless a justifiable reason is provided, failure to make the declaration within the deadline will be considered as a waiver of the scholarship. In case of resignation or withdrawal of the selected candidate, the immediately best ranked candidate will be notified.

**For further information please contact:**

Prof. PhD. Diana Luísa Duarte Lima, through the email: [diana.lima@estesc.ipc.pt](mailto:diana.lima@estesc.ipc.pt)

Coimbra, 09 of june of 2025