



PUBLIC NOTICE/0037/2025

OPENING NOTICE OF A RESEARCH FELLOWSHIP (BI-M)

Reference: BI-M/CBR-2025-02

The Rector of Universidade Católica Portuguesa, Prof. Dr. Isabel Capelo Gil, hereby announces the opening of a call for applications for one Research Fellowship for a Master's degree holder, under the terms of UCP's Regulations on Research Grants, to carry out research activities in the scientific field of Complex Networks and Systems at the Católica Biomedical Research Centre (CBR), funded exclusively by national funds through Fundação para a Ciência e a Tecnologia, I.P., within the framework of the project title "Redundancy effects on spread and control in network dynamics: applications in computational biomedicine", reference 2022.09122.PTDC.

1. GENERAL ADMISSION REQUIREMENTS

- At the time of application, candidates must be enrolled in a post-graduate course integrated into the educational project of a higher education institution, developed in association or cooperation with one or more R&D units or in a course leading to a doctorate degree.
- Not having benefited from a research grant for a doctoral student for more than four years, including the maximum duration of the grant to be awarded in this call.
- Hold a master's degree in a field related to Complex Systems, Network Science, Physics, Applied Mathematics, Statistics, Experimental Science, Computer Science, or Engineering. If obtained outside of Portugal, the degree must be certified in Portugal by the start-date.

2. SPECIFIC ADMISSION REQUIREMENTS

The candidate should have:

- Programming experience in Python 3.X using Numpy, Pandas and NetworkX.
- Experience with projects on GitHub.
- Ability to work individually and in collaboration with other team members.
- Proficiency in English.
- Good communication skills and have experience in presenting scientific work.

Preference for candidates with experience in:

- Complex networks and systems modelling and simulation.
- Discrete dynamical systems (cellular automata, agent-based, etc.) modelling and simulation.
- Numerical methods for ordinary differential equations (ODE).
- Epidemic modelling and control.



3. WORK PLAN

The hired researcher will study network models in biomedicine, including gene regulation, comorbidity in human populations, epidemic transmissions, brain networks, among other network dynamical phenomena. One focus will be to study the role of redundancy and canalization in those complex systems and related concepts. As part of this study, the researcher will be required to develop Python freeware to analyze and visualize graphs aiming towards explainability of dynamic evolution and control of systems biology models.

4. APPLICABLE LAW AND REGULATIONS

Law n.º 40/2004, of 18 of August (Research Fellowship Holder Statute), altered by Decree-Law n.º 123/2019, of 28 of August and UCP Research Fellowship Regulation.

5. WORKPLACE AND SCIENTIFIC GUIDANCE

The work will be developed at the Lisboa - Oeiras facilities of Católica Biomedical Research Centre, under the scientific supervision of Professor Dr. Luis M. Rocha.

6. FELLOWSHIP'S DURATION AND START DATE

The fellowship will be awarded for a period of 8 months, in exclusive commitment.

The fellowship may be renewed for equal periods up to the fullest extent permitted by the applicable regulations or the termination of the funding grant.

The fellowship is planned to start in July 2025.

7. MONTHLY MAINTENANCE ALLOWANCE

The fellowship's maintenance allowance is 1309.64 € per month, paid monthly by wire transfer. The fellowship holder will be covered by a work accident insurance.

If not covered by any social protection scheme, the fellowship holder can ensure the right to Social Security through adherence to the Voluntary Social Security scheme, pursuant to "Código dos Regimes Contributivos do Sistema Previdencial de Segurança Social". Provided that the awarded fellowship has a minimum duration of 6 months, the fellowship holder will be entitled to be reimbursed, by UCP, of the charges resulting from the contributions that apply to the first bracket referred to in article 36 of Decree-Law no. 40/89, of 1 February, with the increase in charges arising from the option for the payment of a higher incidence base being paid by the fellow.

8. SELECTION METHOD

The candidates' final classification shall be presented on a scale of 0 to 100.

Candidates will be assessed based on 3 criteria:

- A. Academic curriculum assessment (30%)
- B. References (10%)
- C. Motivation Letter (40%)

If deemed necessary by the jury, the interview with the selected candidates will represent 20% of the final grade. Otherwise, the classification shall be presented on a scale of 0 to 80.



The selection panel reserves the right not to select any candidate if it considers that none of the candidates has the required profile.

9. COMPOSITION OF THE SELECTION PANEL

President of the Jury: Prof. Dr. Luís Rocha

Effective Member: Prof. Dr. Paulo Navarro-Costa; Prof. Dr. João Xavier and Dr. Felipe Xavier Costa

10. REQUIRED DOCUMENTS FOR APPLICATION

Applications are to be submitted in English and must include the following documents:

1. Letter elaborating on the motivations and objectives for applying to this position.
2. Curriculum Vitae including all the elements to access the admission requirements, namely all the research fellowships previously awarded, if applicable.
3. Up to 2 recommendation letters.
4. Proof of master's degree award (if obtained outside of Portugal, the degree must be certified in Portugal by the start date of the contract).
5. Proof of enrollment in a course leading to the degree of Doctor or in a post-graduate course integrated into the educational project of a higher education institution, developed in association or cooperation with one or more R&D units, which may, at the time of application, be replaced by a declaration of honour from the candidate stating that they will be enrolled in one or the other, whichever the case, at the time of the fellowship contract start date.

11. DEADLINES AND SUBMISSION OF APPLICATIONS

Required documents should be sent by e-mail to fxcosta@ucp.pt from 02/06/2025 to 02/07/2025 (until 5 pm, Lisbon time) with the following reference in the Subject of the e-mail: BI-M/CBR-2025-02 #Candidate's name#.

No document that should have been submitted at the application stage may be presented after the deadline set for this purpose in the opening notice. Failure to comply with the deadline set for the submission of the application, as well as the lack of submission or late submission of the documents referred to in this point will determine exclusion from the competition. False statements provided by the candidates are punishable by law.

12. DELIBERATION AND RELEASE OF THE RESULTS

The selection panel deliberates in accordance with adopted and disclosed selection criteria. Minutes of panel meetings shall include a summary of the meeting content. After application of the selection criteria, the panel shall prepare a ranked list of approved candidates and respective classification.

The final results of the evaluation will be sent by e-mail to all applicants within 90 working days after the deadline for the applications.

In the 10 working days after the communication of the final decision, the selected candidate must confirm in writing his/her availability to initiate the fellowship in the proposed date. In case of unavailability, the offer will be made to the next candidate in the ranked list.



13. PRIOR HEARING, COMPLAINTS AND APPEALS

In case of unfavorable decision, candidates will have 10 working days after notification to pronounce in a prior hearing, should they wish it, under the terms of the Code of Administrative Procedures. The final decision may be subject to a complaint within a period of 15 working days or, alternatively, of an appeal within a period of 30 working days, with both durations beginning on the date of the initial notification. The complaint or appeal should be addressed to the Rector's Office (Reitoria) of Universidade Católica Portuguesa. After this notification, and in case there are no allegations, the results will become definitive. Ineligible candidates will be notified by email, with details of the missing eligibility elements.

14. PRIVACY POLICY

Universidade Católica Portuguesa is the controller responsible for the processing of Personal Data in accordance with Regulation (EU) 2016/679 – General Regulation on Data Protection.

The personal data submitted within the scope of this tender procedure is processed within the framework of said tender procedure only and will be treated by Universidade Católica Portuguesa with the purpose of verifying the fulfillment, by the candidates, of the assumptions established in the applicable legislation for their contracting. Opposition to the processing of data by the candidates will make it impossible to accept the application and, therefore, to analyze and evaluate it.

The personal data of the Data Subject, if it be indispensable for the fulfillment of the obligations of Universidade Católica Portuguesa, may be conveyed to third parties, namely to the Financing Entities identified in this announcement.

The data retention period shall correspond to the legally defined period of five years.

The Data Subject is entitled to oppose to the collection and processing of data, has the right to verification, the right to rectification, the right to deletion, and the right to restriction of processing of the data collected. However, the exercise of such rights may be excluded when the personal data is used to protect public interest, namely in the detection and prevention of crimes or when subject to professional rules of confidentiality.

The Data Subject has the right of access and portability of the data.

Rights of Personal Data Subjects: <https://www.ucp.pt/rights-data-subjects>.

For purposes of exercising the respective rights, contact the University through the e-mail address compliance.rgpd@ucp.pt.

The Data Subject is always entitled to contact and file a complaint with the Comissão Nacional de Proteção de Dados (Portuguese Supervisory Authority for Personal Data).

15. NON-DISCRIMINATION AND EQUAL ACCESS POLICY

Universidade Católica Portuguesa actively promotes a non-discrimination and equal access policy, wherefore no candidate can be privileged, benefited, impaired or deprived of any rights whatsoever, or be exempt of any duties based on their ancestry, age, gender, sexual orientation, marital status, family status, family and economic conditions, instruction, 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 union membership.



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16. CONTACTS FOR FURTHER INFORMATION:

Católica Biomedical Research Centre, Rua da Quinta Grande 6, 2780-156 Oeiras

Human Resources Department

drh.sede@ucp.pt; 217 214 031/2

Lisbon, May 21, 2025

The Rector

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para a Ciência
e a Tecnologia

