

**Faculty of Pharmacy of the University of Lisbon
Call for the award of 1 (one) Post-Doctoral Research Fellowship**

Notice no. BIPD/4/FF/2024

It is made known that a call for the award of **1 (one) Post-Doctoral Research Fellowship** within the scope of the project “**IMProving User experience, Long-term sustainability and Services of EU-OPENSREEN**” (**HORIZON-INFRA-2023-DEV-01 – 101132028**), funded by the European Commission through the Horizon Europe Programme under the Grant Agreement no. 101132028, is open under the following conditions:

I. Scientific Area: Chemical Biology

II. Admission Requirements:

- PhD in Computational Chemistry, Cheminformatics, Biostatistics, Physics, Data Science or related areas;
- Have obtained a PhD degree in the three years prior to the start date of the fellowship;
- Have developed the research work that led to the award of the PhD in an entity other than the entity hosting the fellowship;
- Not having previously had a Post-Doctoral Research Fellowship contract with FFUL.

All higher education degrees and diplomas awarded by foreign higher education institutions need to be recognised by a Portuguese Institution in accordance with Decree-Law no. 66/2018, of 16 August. The presentation of the recognition is mandatory for signing the contact. For further information, please visit [Degree and Diploma Recognition | DGES](#).

Requirements:

- Ability to write code in Python using libraries for machine learning, such as sklearn, PyTorch or TensorFlow;
- Being familiarized with GNN and CNN architectures for chemical biology applications;
- Motivation to work in an interdisciplinary project with multiple partners;
- Excellent ability to communicate science;
- Thriving on challenges and willingness to learn.

III. Research Grant Duration: The research grant will have a duration of **12 months eventually renewable up to a maximum of 20 months**, starting in May 2024, on an exclusivity regime in accordance with the Regulation of Research Grants of the University of Lisbon.

IV. Work Plan: The work is part of a European project (IMPULSE) whose main goal is to build capacity in the EU-OPENSREEN research infrastructure. A webserver will be created to predict modes of action of small molecules using multimodal learning. The postdoctoral researcher will be responsible for implementing the multimodal deep learning tool for mode of action prediction using publicly available data and/or data generated by partners.

V. Workplace and Scientific Guidance: The work will be carried out at research premises in the Faculty of Pharmacy, University of Lisbon, under the supervision of Dr. Tiago Correia de Oliveira Rodrigues, PhD, Assistant Professor, FFUL.

VI. Monthly maintenance stipend: The monthly maintenance allowance (fellowship) corresponds to **1.801,00€** and will be paid by bank transfer. The amounts set out in the Regulation of Research Grants of the University of Lisbon are allocated and altered in accordance with the annual alteration of maintenance grants made by the FCT, I.P.

In addition to the monthly maintenance stipend the grant holder will also be awarded with the value correspondent to the payment of the first step of *Seguro Social Voluntário* (voluntary payment of Social Security), in case he/she chooses to be included in this regime.

VII. Formalization of applications: Applications must be sent in non-editable format (PDF), to the email concursos@ff.ulisboa.pt, containing the identification of the above-mentioned notice. Applications in paper format will not be accepted.

VIII. Application deadline: The deadline for applications is from **April 11th to April 24th, 2024 (10 working days)**.

IX. Evaluation and rating criteria:

The selection of candidates will be made according to weighted merit criteria as detailed below. Only candidates who obtain more than 80% in the evaluation will be considered eligible for an Interview.

Candidate's Merit: Aims to assess compliance with the formal requirements requested in the opening notice, but also to consider the suitability of the scientific area of training and/or specialization, training and professional experience.

- **Adequacy of the Scientific Training Area (AACF):** Weighting of 30%
 - PhD in Computational Chemistry, Cheminformatics, Biostatistics, Physics, Data Science or similar – 0 to 20 values
- **Training and Experience (FE):** Weighting of 40%
 - Ability to write code in Python using libraries for machine learning, such as sklearn, PyTorch or TensorFlow, in particular to process graphs and images – 0 to 20 values
- **Specific competencies for the proposed work plan (CEPTP):** Weighting of 30%
 - Demonstration of practical skills in the use of deep learning in chemical biology – 0 to 20 values

An Interview will be held for the candidates who obtain more than 80% in the Curriculum Evaluation. The Interview will last a maximum of 30 minutes and aims to objectively and systematically evaluate the following criteria:

- Quality of the professional experience;
- Ability to communicate;
- Motivation;
- Critical reasoning;
- Knowledge in the area of deep learning.

The ranking of the selection interview will be obtained through the simple arithmetic mean of the ratings base on the following parameters: Excellent (20 values), Very Good (18 values), Good (16 values), Sufficient (12 values) and Insufficient (8 values).

Final classification: The score obtained in the final classification results from the sum of the points obtained in the Candidate's Merit (50%) and the Interview (50%). An individual form will be filled for each candidate.

X. Instruction of Application:

- a. Application form containing the candidate's identification (*available on the institutional website*);
- b. *Curriculum Vitae* containing the information necessary for the evaluation of the application;
- c. Certificate proving ownership of PhD in Computational Chemistry, Cheminformatics, Biostatistics, Physics, Data Science, or related areas;
- d. Declaration of honour stating that there is no professional activity that violates the exclusivity regime (*available on the institutional website*);
- e. Motivation Letter;
- f. Three-page summary of the work previously done by the candidate with focus on deep learning for chemical biology applications;
- g. Contact of two references.

All the documents necessary for the submission of the application are available on the institutional website, through the link: <https://www.ff.ulisboa.pt/faculdade/recursos-humanos/bolsadeinvestigacaoposdoutoramento-avisobipd4/>.

The documents that instruct the application must be submitted in Portuguese or English language.

No document that should have been submitted in the application phase can be submitted after the deadline set in the opening notice. Failure to comply with the deadline set for the submission of the application, as well as the lack or late submission of documents referred to in this point will determine the exclusion from the competition.

XI. Composition of the Jury: The Jury responsible for the selection of the candidates will be constituted by:

President – Tiago Correia de Oliveira Rodrigues, PhD, Assistant Professor, FFUL;

1st Member of the Jury – Rui Ferreira Alves Moreira, PhD, Full Professor, FFUL;

2nd Member of the Jury – Pedro Miguel Pimenta Góis, PhD, Associate Professor with Habilitation, FFUL

XII. Form of notification of results: All candidates will be notified of the final results of the evaluation by email and will have 10 working days after the aforementioned notification to make a statement, in accordance with the Code of Administrative Procedure.


After this notification, and in case there are no claims, the results will become final. In case of claims, and after the allegation is analyzed and accepted or rejected, the results will become final after 10 working days.

After the final decision is made, a complaint/appeal can be filed to the Director of the Faculty of Pharmacy of the University of Lisbon, Maria Beatriz da Silva Lima, PhD, Full Professor, within 10 working days from the date of notification.

XIII. Applicable legislation and regulations: Regulation of Research Grants of the University of Lisbon, Order no. 6238/2020, published in *Diário da República*, 2nd Series, no. 113, of 12 June, republished by Order no. 8061/2022, published in *Diário da República*, 2nd Series, no. 126, of 1 July, and Research Fellowship Statute (EBI), Decree-Law no. 123/2019, published in *Diário da República*, 1st Series, no. 164, of 28 August.

Faculty of Pharmacy of the University of Lisbon, April 10th, 2024.

The Director,


Maria Beatriz da Silva Lima, PhD, Full Professor