

**Faculty of Pharmacy of the University of Lisbon
Call for the award of 1 (one) Research Grant for PhD students**

Notice no. BID/7/FF/2023

It is made known that a call for the award of **1 (one) Research Grant for PhD students** within the scope of the project “**From fragments to high affinity binders interfacing integrated structural biology, medicinal chemistry and artificial intelligence**” (HORIZON-INFRA-2022-TECH-01-01 – **101094131**), funded by the European Commission through the Horizon Europe Programme under the Grant Agreement no. 101094131, is open under the following conditions:

I. Scientific Area: Pharmaceutical and Therapeutic Chemistry

II. Admission Requirements:

- Master’s degree in Medicinal Chemistry, Organic Chemistry, Cheminformatics, Chemical Engineering, Machine Learning or related disciplines.
- Being enrolled in a doctoral program in Pharmacy¹.

¹ During the application stage, if the candidates do not have in their possession the documents proving their enrolment in the doctoral program, those documents may be replaced by a declaration of honour. Proof of obtaining the degree and/or enrolment through the presentation of certificates must be carried out until the hiring, under penalty of annulment of the candidate's assessment due to error on the assumptions of fact, and consequent exclusion from this competition.

Requirements:

- Experience in modern synthetic chemistry technologies (*e.g.*, electrochemistry), purification, and structural characterization methods;
- Experience in programming (*e.g.*, Python) and Machine Learning.

III. Research Grant Duration: The research grant will have a duration of **12 months eventually renewable up to a maximum of 24 months**, starting in February 2024, on an exclusivity regime.

IV. Work Plan: Within the scope of the Covid Moonshot program several potential and druggable SARS-CoV-2 targets were co-crystallized with fragments. The PhD student will devise artificial intelligence (AI) tools to design small molecules and fragments with potential biological interest. The PhD student will synthesise suggested molecules and test the applicability of self-driving labs to medicinal chemistry programs. The AI design of the small molecules will be conditioned by X-ray crystallography and biophysical assays for affinity measurement. The PhD student will apply and develop skills in medicinal chemistry, AI and automation to deliver high quality leads.

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 and co-supervision of Dr. Frank Glorius, PhD, Full Professor, University of Münster.

VI. Monthly maintenance stipend: The monthly maintenance allowance (scholarship) corresponds to **1.199,64€** 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 **December 22nd 2023 to January 10th 2024 (10 working days)**.

IX. Evaluation and rating criteria:

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 20%
 - Master's degree in Medicinal Chemistry, Organic Chemistry, Cheminformatics, Chemical Engineering, Machine Learning – 0 to 20 values
- **Training and Experience (FE):** Weighting of 40%
 - Evidence of application of emerging synthetic technologies, such as electrochemistry, purification and structural identification methods to access bioactive molecules – 0 to 20 values
- **Specific competencies for the proposed work plan (CEPTP):** Weighting of 40%
 - Experience in Machine Learning – 0 to 20 values

Final classification: The score obtained in the final classification results from the sum of the points obtained in the Candidate's Merit. An individual form will be filled for each candidate. Only candidates who obtain more than 80% in the will be considered eligible for the vacancy in the competition.

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 a Master's degree in Medicinal Chemistry, Organic Chemistry, Cheminformatics, Chemical Engineering, Machine learning or related areas (*available on the institutional website*);
- d. Proof of enrolment in a doctoral program in Pharmacy, or substitution by presenting a declaration of honour (*available on the institutional website*);
- e. Declaration of honour stating that there is no professional activity that violates the exclusivity regime (*available on the institutional website*);
- f. 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/bolsa-de-investigacao-para-estudantes-de-doutoramento-fragment-screen>.

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, December 21st, 2023.

The Director,

Maria Beatriz da Silva Lima, PhD, Full Professor