

Job offer

JOB PORTUGAL

[Faculdade de Ciências da Universidade de Lisboa](#) | Posted on: 19 March 2025

RESEARCH GRANT FOR ONE FELLOWSHIP (BI) FOR MSC STUDENT (Ref.ª BI-MESTRANDO-DroughtResist-2)

Apply now [✉ \(mailto:candidaturas@ciencias.ulisboa.pt?subject=RESEARCH GRANT FOR ONE FELLOWSHIP \(BI\) FOR MSC STUDENT \(Ref.ª BI-MESTRANDO-DroughtResist-2\)\).](mailto:candidaturas@ciencias.ulisboa.pt?subject=RESEARCH%20GRANT%20FOR%20ONE%20FELLOWSHIP%20(BI)%20FOR%20MSC%20STUDENT%20(Ref.%c2%a2%20BI-MESTRANDO-DroughtResist-2).)

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19 Mar 2025

Job Information

Organisation/Company	Faculdade de Ciências da Universidade de Lisboa
Research Field	Other
Researcher Profile	First Stage Researcher (R1)
Positions	Bachelor Positions
Country	Portugal
Application Deadline	2 Apr 2025 - 23:59 (Europe/Lisbon)
Type of Contract	Other
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## Type of Contract Extra Information

Job Status	Full-time
Is the job funded through the EU Research Framework Programme?	Not funded by a EU programme
Is the Job related to staff position within a Research Infrastructure?	No

## Offer Description

At the Faculty of Sciences of the University of Lisbon (Ciências ULisboa), a call is open for the attribution of 1 (one) research grant for Master Student, financed by Programa Regional de Lisboa (LISBOA 2030), within PORTUGAL 2030, through FEDER funds, under the scope of the Project “DroughtResist - Consórcio de biofábricas bacterianas: um bio-estimulante para o aumento da tolerância das plantas ao stress hídrico face à crise climática” (LISBOA2030-FEDER-01172400), according to the following conditions:

### Work plan:

- Based on the state of the art and the knowledge and experience acquired within the consortium team, product specifications will be defined at different levels: (i) bacteria to form the consortium with high (genera or species that are considered to be of environmental safety and health problems, which can be produced industrially, such as *Bacillus*, *Pseudomonas* and *Streptomyces*)); (ii) bioactive compounds produced by bacteria that are relevant for promoting plant tolerance to water stress, such as osmoprotective metabolites (e.g. betaine, proline, trehalose, exopolysaccharides), phytohormones (IAA, gibberellins, ABA), enzymes such as ACC deaminase (SCIENCES); and (iii) co-formulants compatible with the bacteria and bioactive compounds of the consortium (e.g., polysaccharides, vegetable oils, ionic liquids). From a process point of view, specifications for the production of bacteria in bioreactors (e.g. culture media, physical-chemical parameters, percentage of initial inoculum) and formulation (encapsulation methods such as extrusion and emulsification, and mixing in liquids) will be defined. ions). (Activity A3T1).

- Formulation with ionic liquids to amplify the characteristics of PGPR and can contribute to increasing the product's storage time by creating a more favorable environment for bacteria. The ionic liquid formulations to be tested will be: 1% [EMIM][Ac]; 5% [BMIM][Cl]; increasing concentrations of up to 18% (v/v) of [EMIM][Ac]; [AMIM][Cl], [EMIM][Br] and [EMIM][Cl] as they are the most used systems in the formulation of microorganisms. The option for the definitive system will also be made based on the genomic analysis (determined in Activity 2) of each of the bacterial strains in the consortium, and the presence of cation exudation mechanisms present in the LI, the production and uptake of osmoprotectors, transporters of the main facilitator superfamily (MFS), among others, will be seen as potentially favoring the strain's tolerance to ILs. These IL formulations will be tested with encapsulated and non-encapsulated bacteria (Task 3.1) to determine their viability (comparison of the concentration of each bacteria post-formulation and pre-formulation). 3 formulations that allow greater viability and are economically viable will be selected, which will be tested for stability in Task 3. (Activity A3T2).

- Quality control of the product prototype in prototypes formulated at both scales (first obtained at a 10 L scale and then at a 100 L scale) quality control will be carried out over 3 months evaluating the following parameters: (i ) analysis of the concentration of the different bacteria that make up the consortium using molecular quantitative PCR methods (obtained in activity 3); (ii) quantification of the osmoprotective compounds defined in Activity 2 by HPLC; (iii) physicochemical assessment of product stability (pH, density, solubility, viscosity)(Activity A4T3).

## Fellowship duration:

The grant is expected to start on June 2025. The contract, with a duration of twelve (12) months, on an exclusive basis, with the possibility of renewal for twelve (12) additional months.

## Form of presentation of applications:

Applications may be sent by e-mail, to the address [candidaturas@ciencias.ulisboa.pt](mailto:candidaturas@ciencias.ulisboa.pt), with the reference " **Ref.<sup>a</sup> BI-MESTRANDO-DroughtResist-2**", under penalty of not being considered for the competition.

Applications must be accompanied, compulsorily and under penalty of exclusion, by the following documents. No document, which must be submitted at the time of application, may be submitted after the deadline for submission:

- Personal data form and declaration of consent for communication of results via e-mail;
- Declaration under oath;
- Proof of enrolment in a Master's programme with a strong biotechnology component, in the academic year 2024/2025;
- Detailed and updated Curriculum Vitae;
- Photocopy of the qualification certificate(s) of the academic degree(s) required – first degree;
- If the academic degree, required in the present announcement as an admission requirement for the type of scholarship in question, was obtained abroad, you must submit one of the following documents: (See also the NOTES below)
  - Document proving the granting, by a Portuguese Institution, of the recognition or equivalence or registration of the academic degree;
  - Document proving that you have already applied for the recognition of the degree, which application must be submitted by the deadline for receipt of applications, inclusive.

## Notes:

1) The presentation of the proof of obtaining the recognition or equivalence or registration of the academic degree is a mandatory condition for signing the contract;

2) For academic degrees obtained in foreign countries, which have not yet obtained either recognition or equivalence or registration of the degree, it is necessary to recognise it, under the terms provided for in Decree Law no. 66/2018, of 16 August, combined with Ordinance no. 33/2019, of 25 January, as currently amended.

## Where to apply

E-mail

[candidaturas@ciencias.ulisboa.pt](mailto:candidaturas@ciencias.ulisboa.pt)

## Requirements

Research Field

Other

Education Level

Bachelor Degree or equivalent

## Skills/Qualifications

**Candidates must fulfil the following mandatory requirements:**

- Knowledge of English
- Experience in laboratory working

If the academic degree required by the present announcement as an admission requirement for the type of grant in question was obtained abroad, the requirements mentioned in point “Form of presentation of applications” of this announcement regarding the qualification certificates shall be taken into consideration.

## Specific Requirements

**Preference will be given to candidates with the following requirements:**

- Domain of the English language
- Experience in Laboratory work

Languages	ENGLISH
Level	Good
Languages	PORTUGUESE
Level	Excellent
Research Field	Other

## Internal Application form(s) needed

**Formulários\_2.pdf**

**English** (524.04 KB - PDF)

Download [↓ \(https://euraxess.ec.europa.eu/sites/default/files/jobs/2025-03/Formul%C3%A1rios\\_2.pdf\)](https://euraxess.ec.europa.eu/sites/default/files/jobs/2025-03/Formul%C3%A1rios_2.pdf)

## Additional Information

### Benefits

#### Monthly allowance and social security:

- The fellowship amount corresponds to € 1040.98 (one thousand and forty euros and ninety-eight cents), according to FCT Regulation for Research Fellowships, published by Regulation no. 950/2019 in the Diário da República, 2nd series, no. 241, of 16th of December, amended by Regulation No. 643/2021, published in the Diário da República, 2nd Series, No. 135, of 14 July, and available in the site of FCT, I.P..

It will be paid monthly by bank transfer;

- The candidate to be hired may exercise his right to social insurance by joining the voluntary social insurance scheme, under the terms of the Statute of the Research Fellowship. The financing entities assume the costs resulting from the contributions provided for this Social Insurance, according to the Statute of the Research Fellowship.

### Eligibility criteria

### Selection criteria:

The applicable selection methods will be curricular evaluation and, eventually, a selection interview.

If the jury chooses to conduct a selection interview, it will be conducted with the three (3) candidates with the best classification in the curricular assessment.

In the event that the selection interview is held, the final evaluation will be obtained considering the following weightings: 50% for the curricular evaluation and 50% for the selection interview.

#### **Selection committee:**

Cristina Maria Nobre Sobral de Vilhena da Cruz Houghton (President), Luís Miguel Moita Carvalho (1st Effective Member), Hugo Alexandre Teixeira Duarte Ferreira (2nd Effective Member), Patrícia Ferreira Correia (1st Alternate Member) and Maria Teresa Machado Dias (2nd Alternate Member).

#### **Form of publication/notification of results:**

This competition is advertised on the Sciences ULisboa and Euraxess websites.

All candidates will be notified of the final result of the evaluation, sent to the email address used for sending the respective application, or by post, to the address given in the Personal Data Form, through a sorted list, in descending order of the final evaluation obtained.

#### **Selection process**

#### **Legislation framework:**

- Research Fellowship Holder Statute - Law no. 40/2004, of August 18, amended by Decree-Law No. 202/2012, of August 27, by Decree-Law No. 233/2012, of October 29, by Law No. 12/2013, of January 29, by Decree-Law No. 89/2013, of July 9, and by Decree-Law No. 123/2019, of August 28;
- FCT Regulation for Research Fellowships - Regulation no. 950/2019 in the Diário da República, 2nd Series, no. 241, of 16 of December, amended by Regulation No. 643/2021, published in the Diário da República, 2nd Series, No. 135, of 14 July.

To see the full offer please check the following link:

[www.ciencias.ulisboa.pt/concursos?id=](http://www.ciencias.ulisboa.pt/concursos?id=4892) **4892**

#### **Workplace:**

The work will be developed at the Campus of the Faculty of Sciences of the University of Lisbon, located in Campo Grande, 1749-016 Lisbon.

#### **SCIENTIFIC SUPERVISION:**

Cristina Maria Nobre Sobral de Vilhena da Cruz Houghton

Website for additional job details <https://ciencias.ulisboa.pt/concursos?id=4892>

## **Work Location(s)**

Number of offers available

1

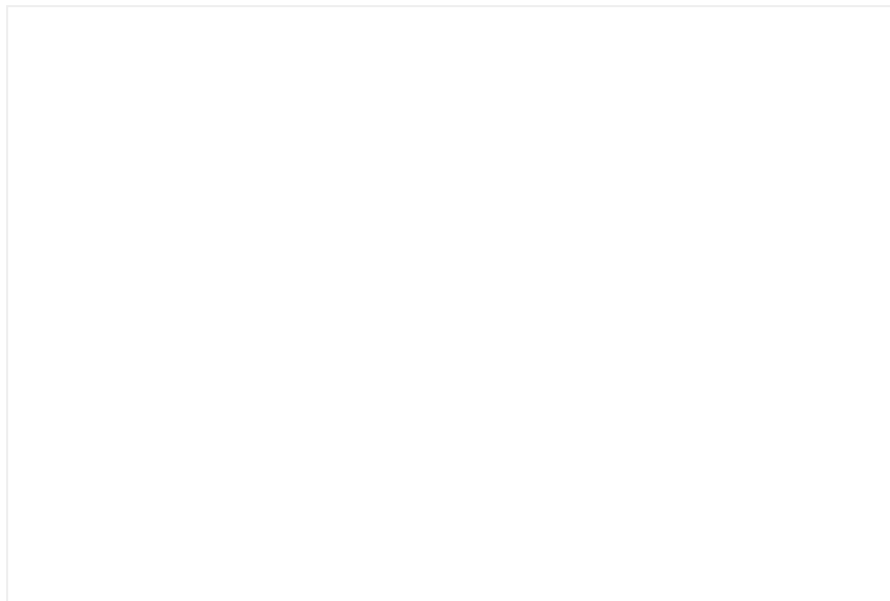
Company/Institute

Faculdade de Ciências da Universidade de Lisboa

Country

Portugal

<b>State/Province</b>	Lisboa
<b>City</b>	Lisboa
<b>Postal Code</b>	1749-016
<b>Street</b>	Campo Grande
<b>Geofield</b>	








## Contact

<b>State/Province</b>	Lisboa
<b>City</b>	Lisboa
<b>Website</b>	<a href="https://ciencias.ulisboa.pt/">https://ciencias.ulisboa.pt/</a>
<b>Street</b>	Campo Grande
<b>Postal Code</b>	1749-016
<b>E-Mail</b>	candidaturas@ciencias.ulisboa.pt

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