

Notice of Call for PhD Research Grants

The Forest Research Centre, School of Agriculture (ISA) opens a call for tenders for the award of five research grants, hereinafter referred to as PhD Research Grants, in the areas of Biological Sciences, Environmental and Earth Sciences, Forestry Engineering, Agronomic Engineering and Environmental Engineering, under the FCT Research Fellowship Regulation (RBI) and the Research Fellowship Statute (EBI).

The scholarships will be financed by the Foundation for Science and Technology (FCT) under the Collaboration Protocol for Financing the Multiannual Plan for Research Scholarships for Doctoral Students, signed between FCT and the R&D Unit Forest Research Center, Ref^a. FCT 00239.

1. PRESENTATION

The call is open between January 22 and February 26.

Applications and supporting documents for the application described on this Call for Proposals must be submitted, by e-mail to cef@isa.ulisboa.pt with the Subject PhD Scholarship/Call3.

Each candidate should submit only one application, under penalty of cancellation of all applications submitted. The provision of false statements or the performance of plagiarism by the candidates is grounds for canceling the application without prejudice to the adoption of other measures of a sanctioning nature.

2. TYPE AND DURATION OF SCHOLARSHIPS

Research grants for doctorates are intended to finance the execution, by the fellow, of research activities leading to the award of the academic degree of doctor in Portuguese universities.

The research activities leading to the award of the academic degree of doctor will take place at the Forest Research Centre, which will be the host institution of the scholarship holders, although the works may be carried out in collaboration with more than one institution.

The research activities leading to the award of the academic degree of doctor of the selected scholarship holders must be framed in the activities plan and strategy of the Forest Research Centre, and must be developed within the scope of the accredited Doctoral Programs in which CEF has a strong involvement:

The work plan may take place entirely or just partially in a national institution (scholarship in the country or mixed scholarship, respectively).

The duration of the scholarships is, as a rule, annual, renewable up to a maximum of four years (48 months), and cannot be awarded for a period of less than 3 consecutive months.

In the case of a mixed grant, the length of the work plan that takes place in a foreign institution cannot exceed 24 months. Only applicants with a document proving permanent and habitual residence in Portugal, valid at the start date of the scholarship, would be able to benefit from scholarships with the mixed typology:

- i) Portuguese candidates - residence certificate issued by the parish council of the place where the applicant inhabits;

- ii) National candidates from European Union countries, excluding Portugal - EU citizen registration certificate, issued by the municipal council of the municipality where the applicant resides;
- iii) Candidates from third states - permanent residence permit, issued by the Serviço de Estrangeiros e Fronteiras (SEF).

3. GRANT RECIPIENTS

The PhD Research Grants are intended for candidates already enrolled or candidates who satisfy the necessary conditions to enroll in an accredited Doctoral Program in which the Forest Research Centre has a strong involvement and who intend to develop research activities leading to the award of the academic degree of doctor at Forest Research Centre, or at host institutions associated with it.

4. ADMISSION

4.1 Admission requirements

May apply to this contest:

- National citizens or citizens of other member states of the European Union;
- Citizens of third States;
- Stateless persons;
- Citizens who are beneficiaries of political refugee status.

To apply for the PhD Research Grant, it is necessary to:

- Have a Bachelor or a Master Degree in the field of Biological Sciences, Environmental and Earth Sciences, Mathematics, Forest Engineering and Environmental Engineering, Chemistry, Biochemistry or similar areas;
- Living in Portugal permanently and habitually, if the work plan associated with the scholarship is partially carried out by foreign institutions (mixed scholarships), a requirement applicable to both nationals and foreigners.
- Not have received a PhD or PhD scholarship in companies directly financed by FCT, regardless of its duration.

4.2 Application Admissibility Requirements

It is essential, under penalty of no admission to the Call, to attach the following documents to the application:

- Copy of the identity card / citizen card / passport;
- *Curriculum vitae* of the candidate;
- Curriculum structured according to EXCEL files available through the link https://www.isa.ulisboa.pt/files/site/pub/CEF-Structured_CV_Form.xlsx
- Certificates of competences of the academic degrees held, specifying the final classification and, if possible, the classifications obtained in all subjects taken;
- Registration of recognition of academic degrees awarded by foreign higher education institutions and

registration of the conversion of the respective final classification to the Portuguese classification system;

- Letter of motivation with indication of the scholarship the candidate is applying to;
- Letters of recommendation (two), with contact details of the references;
- Declaration of acceptance for a remote interview if the candidate is selected to the second phase of the evaluation process (see 6. Evaluation criteria).

The application and all associated documents, including the letters of motivation and recommendation, must be written in Portuguese or English. Regarding the above mentioned admissibility requirements, the following should be noted:

- In the case of academic degrees awarded by foreign higher education institutions, and in order to guarantee the application of the principle of equal treatment to candidates who hold foreign and national academic degrees, the recognition of these degrees and the conversion of the respective final classification is mandatory for the Portuguese classification scale.

The recognition of foreign academic degrees and diplomas as well as the conversion of the final classification to the Portuguese classification scale can be required in any public higher education institution, or in the Directorate-General for Higher Education (DGES, only in the case of automatic recognition). Regarding this matter, it is suggested to consult the DGES portal through the following address: <http://www.dges.gov.pt>.

- Applicants will only be admitted if they have completed the cycle of studies leading to the award of a bachelor or master degree by the end of the application period.

5. WORK PLANS

The work plans of the scholarships are framed by the activity plan and strategy of the R&D Unit. As a result, they articulate among themselves in a doctoral project that cuts across CEF and aims to develop an ecological-economic model for the Portuguese forestry sector. Specifically, the plans are the following ones:

Scholarship 1: The main objective of the work plan will be to contribute to the development of an ecological-economic model for the management of forest landscapes. It will include investigating instruments to model vegetation dynamics and to estimate values of ecosystem services (e.g., wood, carbon, biodiversity, erosion, fire protection and pests and diseases). The emphasis is placed on the development of these instruments, on their integration in simulators that project the values of ecosystem services in alternative scenarios for managing the forest landscape and looking for ecosystem services.

Scholarship 2: The main objective of the work plan is to develop methods and systems for support decision-making in ecosystems forest management planning and in the analysis of scenarios. Specifically, the plan will involve a) the investigation of logical structures for information systems at various spatial scales, b) the integration of information and models / simulators resulting from the research developed at CEF in order to define multi-objective decision spaces at various spatial scales and c) the investigation of methods for the analysis of tradeoffs between ecosystem services and the search for solutions to problems of multi-objective planning of forest and natural resource management; d) the investigation of models that integrate offer and demand functions for ecosystem services.

Scholarship 3: The work plan will have as main objective the development of research work in Biomass and Forest Products, in a perspective of circular economy, in order to value wood waste materials and increase its value, contributing to a more sustainable use of based on the concepts of biorefinery and bioeconomics. The focus of the investigation will be the development of selective biomass fractionation processes, namely pieces and remains of technological processing material, making a physical-chemical and anatomical characterization and looking for new biobased products with greater added value. The specific objective will be to analyze different strata fractions of different forest residues, isolate the lignin and perform a characterization by Vibrational Spectroscopy, Py-GC / MS, 2D-NMR, GPC, DFRC, SEM and others.

Scholarship 4: The work plan will have as main objective the development of research work on Biomass and Forest Products in order to increase its value, contributing to a more sustainable use of lignocellulosic materials based on the concepts of biorefinery and bioeconomics. The focus of the investigation will be the development of selective biomass fractionation processes, making an anatomical, physical and chemical characterization and looking for new biobased products with greater added value. Specific work objectives: to develop selective biomass fractionation processes, to chemically characterize the different fractions by GC / MS, 2D-NMR, TGA / DTG, HPLC, and vibrational spectroscopy. Based on the results, some technological applications will be studied.

Scholarship 5: The work plan will aim to study the effect of the diversification of forest and agricultural ecosystems on the abundance and biodiversity of arthropod communities associated with regulatory services, such as biological pest control and pollination. In forest ecosystems, management modes that affect biodiversity will be considered, such as the composition of stands and sub-cover. In agricultural ecosystems, the role of different types and configurations of ecological infrastructures (e.g., floristic composition, complexity) will be analyzed. In both systems the effects on the conservation of populations of predators and pollinators will be analyzed. It is intended to contribute to the development of decision models that assist in the management of functional biodiversity in agrarian ecosystems.

6. EVALUATION CRITERIA

The assessment takes into account the candidate's merit.

Applications considered admissible will be scored on a scale of 1 to 5 in each of the following evaluation criteria:

- Criterion A - Academic qualifications, weighing 30%;
- Criterion B - Research experience (e.g. publications, research projects) and / or professional career (e.g. working in public or private institutions or NGOs with relevance to the work plan), with a weight of 30%;
- Criterion C - Motivation letter for developing the work plan, weighing 20%;
- Criterion D - Adequacy of the candidate's profile for the development of the work plan, with a weight of 20%;

The weighted average of these criteria, C1, will be used to allocate and rank the candidates to each work plan. A maximum of 3 candidates per work plan will proceed to the second phase of the evaluation process, an interview scored on a scale of 1 to 5 (C2).

The final classification of the candidates for each work plan combines the scores in the two assessment phases according to the following weights: C1: 70%, C2: 30%.

For the purposes of making a final decision on the granting of scholarships for each work plan, the respective candidates will be ranked according to the weighted average of the classification obtained in the two evaluation phases, translated by the following formula:

$$\text{Final Classification} = (0,7 \times C1) + (0,3 \times C2)$$

For tie-breaking purposes, the ranking of the candidates will be made based on the ratings assigned to each of the evaluation criteria in the following order of precedence: criterion C1, criterion C2.

Important notice for candidates with diplomas issued by foreign higher education institutions:

- Candidates with diplomas issued by foreign higher education institutions can apply and will be evaluated using the same criteria as candidates with diplomas issued by Portuguese institutions, provided that they **present, in their application, proof of recognition of academic degrees and conversion of the final classification to the Portuguese classification scale under the terms of the applicable legislation.**

Candidates whose application is evaluated with a final classification below 3 points are not eligible for the scholarship.

7. EVALUATION

The candidates' evaluation panel consists of the following nine members, members of the Forest Research Centre:

José Guilherme Martins Dias Calvão Borges, coordinator
Ana Paula Soares Marques de Carvalho
Jorge Manuel Barros d' Almeida Gominho
José Miguel Oliveira Cardoso Pereira
Manuela Rodrigues Branco Simões
Maria da Conceição Brálio de Brito Caldeira
Maria Margarida Branco Brito Tavares Tomé
Maria Teresa Marques Ferreira
Ofélia Maria Serralho dos Anjos

The evaluation panel will assess applications in accordance with the evaluation criteria described in this Call for Proposals, considering the elements of evaluation.

All panel members, including the coordinator, make a commitment to respect a set of responsibilities essential to the evaluation process, such as the duties of impartiality, the declaration of any potential situation of a conflict of interest and confidentiality. At all times during the evaluation process, confidentiality is fully protected and ensured in order to guarantee the independence of all opinions produced.

Each application will be evaluated by a subset of elements of the scoreboard. Panel members, including the coordinator, cannot be advisors or co-supervisors of candidates with applications submitted to the competition in which they participated in their evaluation.

For each application, a final evaluation form will be produced by the panel in which the arguments that led to the scores attributed to each of the evaluation criteria are presented in a clear, coherent and consistent manner.

After the meetings of the evaluation panel a Minute, which is the responsibility of all the panel members, will be prepared.

The Minute and its attachments must include the following information:

- Name and affiliation of all members of the evaluation panel;
- Identification of all excluded applications and respective grounds, if applicable;
- Methodology adopted by the panel for particular cases if applicable;
- Final Evaluation Sheets for each candidate;
- Provisional list of classification and ranking of candidates, in descending order of the final classification, of all applications evaluated by the panel;
- Statements of conflict of interest prepared by all panel members;
- Possible delegations of votes and powers due to justified absence, if applicable.

8. DISCLOSURE OF RESULTS

The results of the evaluation are communicated via e-mail to the e-mail address used by the applicant to send the application/ indicated in the application

9. TIME LIMITS AND PROCEDURES FOR PRIOR HEARING, COMPLAINT AND APPEAL

After communication of the provisional list of the evaluation results, the candidates have a period of 10 working days to, if they wish, give their opinion at the prior hearing of all relevant parties concerned, under the terms of articles 121 and the following ones of Administrative Procedure Code.

The final decision will be rendered after the analysis of the pronouncements presented at the prior hearing of all relevant parties concerned. From the final decision, a complaint may be filed within 15 working days, or, alternatively, an appeal may be filed within 30 working days, being the days counted from the respective notification date. Candidates who choose to submit a complaint must address their pronouncement to the member of the FCT Board of Directors with delegated competence. Candidates who choose to submit an appeal must address it to the FCT Board of Directors.

10. GRANT AWARD REQUIREMENTS

Research scholarship contracts are signed directly with FCT.

The following documents must be sent, when awarding the scholarship, for the purposes of contracting:

- a) Copy of the civil, tax and, where applicable, social security identification document (s) ¹;
- b) Copy of the certificates of qualifications of the academic degrees held;
- c) Presentation of the registration record for the recognition of foreign academic degrees and conversion of the respective final classifications to the Portuguese classification scale, if applicable;
- d) Document proving registration and enrollment in the Doctoral Programs in which the Forest Research Center

has a strong involvement;

e) Statement by the supervisor (s) assuming the responsibility for supervising the work plan, pursuant to Article 5-A of the Research Fellow's Statute (draft declaration to be made available by FCT);

f) Document proving the candidate's acceptancy by the institution where the research activities will take place, guaranteeing the necessary conditions for its good development, as well as the fulfillment of the duties provided in article 13 of the Research Fellow's Statute (draft declaration to be made available by FCT);

g) Updated document proving compliance with the exclusive dedication regime (draft declaration to be made available by FCT).

The granting of the scholarship is still dependent on:

- compliance with the requirements provided for in this Opening Notice;
- the result of the scientific evaluation;
- the absence of unjustified noncompliance duties of the scholarship holder under a previous scholarship contract financed, directly or indirectly, by FCT;
- FCT's budget availability.

Failure to deliver any of the documents necessary to complete the contracting process for the scholarship, within 6 months from the date of communication of the decision to award the conditional grant, implies the expiration of the referred grant award and the termination of the process.

11. FINANCING

The scholarship payment will start after the applicant returns the duly signed scholarship contract, which should occur within a maximum period of 15 working days from the date of receipt.

The scholarships awarded under this call will be financed by the FCT with funds from the State Budget and, when eligible, with funds from the European Social Fund, made available by PORTUGAL2020, through, namely, the Northern Regional Operational Program (NORTE 2020), the Centre Regional Operational Program (Centro 2020) and the Alentejo Regional Operational Program (Alentejo 2020), in accordance with the regulatory provisions established for this purpose.

¹ The availability of these documents can be replaced, as an option of the candidate, by the personal presentation of the documents at the financing entity, which will keep the elements contained therein that are relevant to the validity and execution of the contract, including the civil, tax and security identification numbers as well as the validity of the respective documents.

12. COMPONENTS OF THE SCHOLARSHIP

Scholarship recipients receive a monthly maintenance allowance in accordance with the table in Annex I of the RBI.

The scholarship may also include other components, under the terms set out in article 18 of the RBI and at the amounts provided in its Annex II.

All scholarship holders benefit from a personal insurance accident for research activities, supported by FCT.

All scholarship holders who are not covered by any social protection regime can ensure the exercise of the right to social security through adherence to the voluntary social insurance regime, under the terms of the Code on the Contributory Regimes of the Protection Systems of Social Security, in which FCT ensures the payment of the charges resulting from contributions under the terms and with the limits provided for in article 10 of the EBI.

13. PAYMENTS OF SCHOLARSHIPS COMPONENTS

Payments due to the grantee are made by bank transfer to the account identified by the grantee. The monthly maintenance allowance is paid on the first business day of each month.

Payments for registration, enrollment or tuition fees components are made by FCT directly to the national institution where the fellow is registered or enrolled in the PhD.

14. SCHOLARSHIP RENEWAL TERMS AND CONDITIONS

The renewal of the scholarship always depends on the request for the contract renovation by the fellow, within 60 working days prior to the renewal date starts, accompanied by the following documents:

- reviews issued by the supervisor (s) and by the host organization (s) on the following up of the grantee's work and the evaluation of his activities;
- updated document proving compliance with the exclusive dedication regime;
- document proving renewal of registration in the studies' cycle leading to the degree of doctor.

15. INFORMATION AND PUBLICITY OF THE FINANCING GRANTED

In all R&D activities directly or indirectly financed by the scholarship, namely, in all communications, publications and scientific creations, as well as thesis, carried out with the support provided by the scholarship, the mention of financial support from FCT and the European Social Fund must be expressed, namely through the Northern Regional Operational Program (NORTE 2020), the Center Regional Operational Program (Centro 2020) and the Alentejo Regional Operational Program (Alentejo 2020). For this purpose, the FCT, MCTES, ESF and EU insignia must be inscribed in the documents referring to these actions, according to the graphic rules of each operational program.

The disclosure of research results funded under the RBI must comply with the rules for open access to data, publications and other research results in force at the FCT.

For all scholarships, and in particular in the case of actions supported by community funding, namely from the FSE , following up and control actions may be carried out by national and community bodies in accordance with the applicable legislation in this matter. Scholarship holders, must collaborate and provide all the requested

information, which may evolve surveys and evaluation studies in this area, even in case the scholarship has terminated.

16. NON-DISCRIMINATION AND EQUAL ACCESS POLICY

FCT promotes a policy of non-discrimination and equal access, so that no candidate can be privileged, benefited, harmed or deprived of any right or exempt from any duty, namely, due to ancestry, age, sex, sexual orientation, marital status, family status, economic status, education, origin or social status, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnicity or race, territory of origin, language, religion, political or ideological beliefs and union affiliation.

17. APPLICABLE LAWS AND REGULATIONS

The Call is governed by this Opening Notice, by the FCT Research Scholarship Regulation, approved by Regulation No. 950/2019, published in the II Series of the DR of December 16, 2019, by the Research Scholarship Statute approved by the Law 40/2004, of August 18, in the drafting in force, and by other applicable national and community legislation.