

NOTICE OF OPENING OF AN INTERNATIONAL COMPETITION FOR THE RECRUITMENT OF A DOCTORATE RESEARCHER FOR IST-ID

Public Notice Number iBB_U5_SCERG_FCT TENURE /IST-ID

1. Framework

The Executive Board of the Association of Instituto Superior Técnico for Research and Development (IST-ID) on the 16th of October of 2024 took the decision to open an international selection competition for one doctorate position, in exclusivity regime, for the exercise of activities of scientific research in the scientific area(s) Medical and Health Science, sub-area Medical Biotechnology, field Stem Cell Bioengineering of the scientific domain of Engineering and Technology, of in the form of a non-term employment contract under the “Código do Trabalho” (Labor Code), approved by Law No. 7/2009 of February 12, as currently amended, and within the scope of the funding mechanism of the Ministry of Science, Technology and Higher Education to support the hiring of PhDs for the scientific research career resulting from the financing program provided for in Law No. 82/2023, of December 29 (State Budget Law).

The activities to be developed: The assistant researcher to be hired should establish a research program focused on fostering the field of regenerative medicine, cell and gene therapy, and cancer therapies, or the field of cellular agriculture by translating pioneering research and development in stem cell, tissue and organ engineering and science to improve human health and well-being. The expertise seek should combine know-how on stem cells and bioengineering tools applied to one or more of the fields of regenerative medicine, cell and gene therapies, cancer therapy, tissue engineering, organ engineering, disease modelling, or cellular agriculture.

The candidate should have experience on working with stem cells, namely one or more of the following cell types: induced pluripotent stem cells (iPSC), hematopoietic stem cells (HSC), neural stem cells (NSC) or mesenchymal stem/stromal cells. Moreover, the candidate must have a solid experience on the development of one or more of the following bioengineering tools, bioprocess engineering, cell expansion and differentiation, scale-up, mathematical modelling, bioreactor design, biomaterials development or additive manufacture.

Preferential areas of work are the development of scalable bioprocesses for the production of stem cells, cells and molecular derivatives, disease models or scaffolds and additive manufacture approaches, among other namely on the areas of immune therapies, cancer therapies, as well as osteochondral, hematopoietic, cardiac, neural, muscular applications.

The researcher is expected to apply for funding from competitive international and national calls to ensure the sustainability of the envisaged research and maximizing its impact; establish national and international collaborations with academic, clinical or industrial stakeholders; and supervise MSc and PhD students. Therefore, the candidate should demonstrate the capacity to secure funding through competitive calls, have experience in applying or participating on EU-funded applications, experience in the supervision of MSc and PhD students, and ability to establish national and international collaborations with academic, clinical or industrial partners.

Open position under the FCT TENURE program - 1st edition, within the strategic objectives of the iBB, wherein the researcher will become an integrated member of this Research Unit and the financing

line to support the hiring of doctorates for indefinite term (OE 2024 additional financing program to encourage the hiring of researchers).

2. Applicable law:

- “Código do Trabalho” (Labor Code), approved by Law No. 7/2009, of February 12, in its current wording.
- If relevant, specific regulations applicable to IST-ID, namely the Research Career Regulation of the Association of Instituto Superior Técnico for Research and Development (hereinafter referred to as RCISTID), available at <https://ist-id.pt/files/sites/43/regulamento-da-carreira-de-investigacao-da-ist-id-1.pdf> , and the General Principles of the Human Resources Policy for Researchers of IST-ID, available at <https://ist-id.pt/files/sites/43/principios-gerais-da-politica-de-recursos-humanos-investigadores-da-ist-id.pdf> .

3. Work place

The place of work is located at IST-ID, Associação do Instituto Superior Técnico para a Investigação e Desenvolvimento, Av. António José de Almeida, nº 12, 1000-043 Lisboa.

4. Remuneration

The gross monthly remuneration complies with the provisions of Article 15 of the RCISTID, corresponding to the first remuneration level of Auxiliary researcher.

5. Admission Requirements

5.1 General Requirements

The competition is open for national candidates, foreigners and stateless persons who hold the PhD degree or hold the recognition of that degree under the terms of the Decree-Law n.o 66/2018, of August 16, in a branch of knowledge or specialty that covers the Medical and Health Science, sub-area Medical Biotechnology of the scientific domain of Engineering and Technology or related scientific area, and are also holders of a scientific and professional curriculum that reveals an adequate profile to the activity to be developed.

If the doctorate was conferred by a foreign higher education institution, it must comply with Portuguese legislation regarding the registration/recognition of foreign degrees. For this purpose, the procedures described in point 6.2 (submission of applications) of this Notice must be followed.

5.2 Specific Requirements

The applicants must hold the PhD degree, and also hold of a scientific and professional curriculum that reveals an adequate profile to the Stem Cell Bioengineering activity to be developed.

6. Formalization of applications

6.1 Applications are formalized by means of an application form, made available at <https://ist-id.pt/concursos/emprego-cientifico-sem-termo/> electronic address, addressed to the President of Instituto Superior Técnico Association for Research and Development (IST-ID), stating the identification of this notice, full name, affiliation, number and date of identity card, Citizen Card, or civil identification number, tax identification number, date and place of birth, marital status, profession, residence and contact address, including e-mail address and telephone contact.

The recognition of the PhD degree should be obtained by the date of the act of contracting.

In the application form, the candidate must indicate his / her consent so that the communications and notifications in the context of this hiring procedure can take place by electronic mail, to the electronic address indicated in that application form.

6.2 The application shall be accompanied by documents proving the conditions laid down in point 5 for admission to this invitation to tender, in particular:

- a) Copy of certificate or PhD diploma indicating the respective date of completion;
- b) PhD Thesis or equivalent document(s) that determined the award of the academic PhD degree;
- c) Detailed *Curriculum Vitae*, structured in accordance with the items in points 7 and 8, indicating the works, and adding a copy of them, that the candidate considers most relevant to each of the items in points 7 and 8;
- d) Scientific project, focusing on Stem Cell Bioengineering (5-page limit, not considering cover and references);
- e) Other documents that the candidate justifies to be relevant to the analysis of his/her application.

If the PhD was conferred by a foreign higher education institution, it must comply with Portuguese legislation regarding the recognition of foreign degrees, regulated by Decree-Law No. 66/2018, of August 16. In the event that the candidate is selected, the signing of the contract is conditional upon the presentation of the formal document.

6.3 Application Deadline

Applicants submit the documents referred to in 6.1 and 6.2 in PDF format at the electronic address <https://ist-id.pt/concursos/emprego-cientifico-sem-termo/>, issued up to the last day of the tender opening period, which is fixed at 10 (ten) working days after publication of this Notice.

An applicant may, by reason of the impossibility or technical difficulty of sending any of the documents referred to in 6.1 and 6.2 by e-mail, deliver them on physical support, respecting the above date, by registered mail with acknowledgment of receipt to the address postal service “Av. António José de Almeida, nº12, 100-043 Lisboa” or by hand at IST Human Resources Division located at Av. Rovisco Pais, 1049-001 Lisboa until 4:30 p.m. (Lisbon time) on the 6th of November of 2024.

Not being accepted the justification of the candidate for the delivery of documents only in physical format, the President of the jury will give a deadline of 5 (five) working days to present them also in digital support.

6.4 The application form is submitted in Portuguese, while the *curriculum vitae* and documents are presented in English.

6.5 Candidates who do not comply with the provisions of point 6. or fail to provide evidence of the requirements required are not admitted to the present competition. Candidates who do not submit the application using the form or who do not deliver all the documents referred to in points 6.2 a) to d) or who present them unreadable, incorrectly completed, or invalid are eliminated. The jury is also entitled to require any candidate, in case of doubt and for the purposes of admission to competition, to present documentary evidence of the declarations in the submitted documents. Failure to submit the requested clarifications, information, or documents within 5 (five) working days will result in the exclusion of the application.

False statements made by the candidates will be punished in accordance with the law.

6.6 Selection process

In accordance with Article 6 of the RCISTID, the selection process is made through the evaluation of the scientific and curriculum path of the candidates.

7. Evaluation of the candidate(s)

7.1. The evaluation focuses on the relevance, quality, and timeliness of the scientific and curriculum path:

a) of the scientific, technological, academic, cultural or artistic production during the last five years and considered more relevant by the candidate;

b) of the applied or practice-based research activities developed over the last five years and considered as having the greatest impact by the candidate;

c) of the activities of extension and dissemination of knowledge developed during the last five years, in particular in the context of promoting the culture and scientific practices considered by the candidate to be of greater relevance;

d) of the activities of science, technology and innovation programs management or of the experience in observing and monitoring the scientific and technological system or higher education, in Portugal or abroad.

7.2 The period of five years referred to in the preceding paragraph may be increased by the jury, at the request of the candidate, when justified on grounds of suspension of scientific activity for socially protected reasons, namely for reasons of parental leave, prolonged serious illness, and other situations of unavailability for work legally protected.

7.3 The final classification system for candidates is expressed from 0 to 100. The value is calculated considering that only relevant activity for the field of the competition will be considered for each item, according to the weighting referred to in point 8 of present notice.

8. Assessment criteria

The assessment criteria are set out in this entry, with the option mentioned in point 8.5, with particular emphasis on the *curriculum vitae* and the contributions considered to be of higher relevance by the candidate in the last 5 years:

8.1 Quality of the scientific, technological, cultural or artistic production, considered more relevant by the candidate, and relevant to the project to be developed, which was given a weighting factor of 70% considering:

i) Scientific publications: a parameter which includes books, chapters of books, articles in scientific journals and international conference proceedings of which the applicant was the author or co-author, considering:

- its nature;
- its impact;

- the scientific / technological level and innovation;
- diversity and multidisciplinary;
- international collaboration;
- the importance of contributions to the advancement of the current state of knowledge;
- the importance of the works that have been selected by the candidate as most representative, in particular as regards their contribution to the development and evolution of the scientific area for which the competition is open.

ii) Creation and strengthening of laboratory resources: a parameter that considers the candidate's participation and coordination of initiatives resulting in the creation or strengthening of experimental and/or computational laboratory infrastructures to support research.

iii) Recognition by the international scientific community: a parameter that takes into account:

- prizes from scientific societies;
- editorial activities in scientific journals;
- participation in editorial bodies of scientific journals;
- coordination and participation in program committees of scientific events;
- invited lectures in scientific meetings or in other institutions;
- participation as a member of competitive admission scientific societies and other similar distinctions.

iv) Coordination and participation in scientific projects: a parameter that includes the candidate's participation and coordination of scientific projects subject to competitive procedures, considering:

- the territorial scope and its dimension;
- the technological level and the importance of contributions;
- innovation and diversity.

v) Enhancement of scientific activity: a parameter that takes into account the capacity of coordination and leadership of research teams demonstrated by the candidate.

vi) Accompaniment and orientation of students, trainees and research fellows: a parameter that intends the orientation of doctoral students, master's and undergraduate students, trainees and research fellows taking into account the number, quality, scope and scientific / technological impact of the resulting publications, theses, dissertations and final course papers, distinguishing especially the awarded works and the international recognition.

8.2. Activities of applied or practice-based research, considered to be of greatest impact by the candidate, and relevant to the project to be developed, which was given a weighting factor of 20% considering:

(i) Vocational training actions: a parameter which takes into account the participation and coordination of technological training actions aimed at enterprises and the public sector, taking into account their nature, technological intensity and results achieved.

ii) Provision of services and integrated consultancy in the institutional mission: a parameter that considers participation in activities involving the business community and the public sector, taking into account the type of participation, size, diversity, technological intensity and innovation.

iii) Design, project, and production of scientific achievements: a parameter that takes into account the value of relevant professional experiences for the activities of the Institute.

8.3 Activities of extension and dissemination of knowledge, particularly in the context of the promotion of culture and scientific practices, considered of greater relevance by the candidate, and relevant to the project to be developed, which was given a weighting factor of 5% considering:

i) Industrial and intellectual property;

ii) Publications of scientific and technological outreach: parameter that takes into account the articles in magazines and national conferences and other publications of scientific and technological diffusion, taking into account their professional and social impact.

iii) Services to the scientific community and to society: a parameter that takes into account the participation and coordination of scientific and technological dissemination initiatives and considering the nature and results achieved by these initiatives, when carried out towards:

- the scientific community, including the organization of congresses and conferences;
- the media;
- companies and the public sector.

8.4 Contribution to activities related to the management of science, technology and innovation programs, or experience in the observation and monitoring of the scientific and technological system or higher education, in Portugal or abroad, and relevant to the project to be developed, with a weighting factor of 5% considering:

i) The responsibility of research laboratories and national and international research projects

8.5. In weighing the evaluation criteria listed in paragraphs 8.1 to 8.4, each jury member may consider the following additional parameters under the following conditions:

8.5.1. The relevance and quality of the scientific project proposed.

9. Jury composition

In compliance with article 8º of RCISTID, the jury of the competition is composed as follows:

President

Mário Nuno Berberan Santos , Full Professor, Instituto Superior Técnico da Universidade de Lisboa

Members:

Joaquim Manuel Sampaio Cabral, Full Professor, Instituto Superior Técnico da Universidade de Lisboa and Emeritus Professor of Universidade de Lisboa

Luís Joaquim Pina da Fonseca, Associate Professor, Instituto Superior Técnico da Universidade de Lisboa

Jonathan Seth Dordick, Full Professor, Institute Professor, Departments of Chemical and Biological Engineering, Biomedical Engineering, and Biological Sciences, Rensselaer Polytechnic Institute, USA

Sean Palecek, Full Professor in the Department of Chemical and Biological Engineering at the University of Wisconsin – Madison, USA

10. Competencies, functioning, and decisions of the Jury

It is the responsibility of the jury of the competitive procedure to ensure its processing, namely: assess the applications; deliberate through reasoned nominal voting according to the adopted and disclosed selection criteria, with no abstentions allowed; hold meetings, including those for the final decision, using telematic means.

Minutes are drawn up for the jury meetings, containing a summary of what occurred therein, as well as the votes cast by each member and their respective justifications.

After the completion of the application of the selection criteria, the jury must proceed to prepare an ordered list of approved candidates with their respective ratings.

10.1 The jury may decide to select up to 3 candidates who will be called to hold a session presenting the results of their investigation, following which the jury members should stimulate an open debate on its content and innovative character. This presentation session does not constitute a selection method and is not classified, aiming merely to obtain explanations or clarifications of elements contained in the candidates' curricula.

10.2 The jury, when it deems it necessary, may request the candidate to present additional documents proving the candidate's statements, which are relevant to the analysis and classification of his/her application.

10.3 Approval on absolute merit:

10.3.1 The Jury will deliberate on its approval or rejection on absolute merit, by a justified vote where no abstentions are admitted.

10.3.2 A candidate is considered approved on absolute merit when he/she obtains a favorable vote of more than half of the members of the jury.

10.3.3 Candidates who have a scientific and curricular path relevant to the scientific area(s) of the competition and taking into account their suitability for the additional weighting criteria identified in 8.5 will be approved on absolute merit.

10.3.4 The unfavorable vote to approval on absolute merit can still be justified by the failure to fulfill the following circumstance: a) the Scientific Project prepared by the candidate is shown to be clearly insufficient and misaligned with the scientific area (s), suffering from serious inaccuracies or not supported by previous work of the candidate.

10.4 Each member of the jury assigned a classification to each of the candidates in each evaluation criteria, on a scale of 0 to 100 points, ranking the candidates according to their classification consisting

on the sum of the partial classifications assigned in each evaluation criteria, and taking into account the weighting factor given to each parameter.

10.5 Candidates shall be ordered by applying the successive voting method.

10.6. The jury decides by absolute majority, and abstentions are not allowed.

10.7 The final classification of each candidate is the one corresponding to his/her ranking resulting from the application of the method referred to in point 10.4.

10.8 After the selection criteria assessment, the jury proceeds to prepare the ordered list of approved candidates with their respective ratings.

10.9 The final deliberation of the jury is approved by the President of IST-ID, and it is his responsibility to establish the respective contract.

11. Publication

The list of admitted and excluded candidates, as well as the final ranking list of candidates, will be published on the IST-ID website <https://ist-id.pt/>, with candidates notified via email, with a delivery receipt for the notification.

12. Prior Hearing and Deadline for Final Decision

After being notified, the candidates have 10 (ten) working days to submit a formal rebuttal. Within the term of 90 days, counted from the deadline for the submission of applications, the final decisions of the jury are given.

13. Final Ranking List and Job Occupancy

This tender is exclusively intended to fill the vacancy(s) indicated and may be terminated until the homologation of the final ranking list of candidates and expiring with the respective occupation of the working position on offer.

14. Non-discrimination and equal access policy

14.1 IST-ID actively promotes a policy of non-discrimination and equal access, so that no candidate can be privileged, benefited, disadvantaged or deprived of any right or exemption from any duty owing, in particular, to ancestry, age, sex, sexual orientation, marital status, family status, economic situation, education, 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 beliefs and trade union affiliation.

14.2 Under the terms of Decree Law No. 29/2001, of February 3, a disabled candidate has a preference when in equal classification, which prevails over any other legal preference. Candidates must declare on the application form their respective degree of disability, the type of disability and the means of communication/expression to be used in the selection process, under the terms of the aforementioned diploma.

15. Privacy Policy

IST-ID is the Data Controller within the meaning of Regulation 2016/679 (General Data Protection Regulation).

The personal data processed in the context of this recruitment procedure are intended for its instruction and will be processed by IST-ID for the purpose of verifying that the candidates meet the prerequisites set out in the applicable legislation for their hiring.

Opposition to the processing of data by candidates will render the application inadmissible and, consequently, its analysis and evaluation.

The data retention period will correspond to the legally defined five-year period.

Data subjects have the right to object to the collection and processing, to verify, correct, delete, and limit the use of the data collected. The exercise of these rights is exempted when personal data are used to safeguard public interest, particularly in cases of crime detection and prevention, or when they are subject to professional secrecy.

Data subjects have the right of access and data portability.

To exercise their rights, contact IST-ID via email dpo@ist-id.pt.

Data subjects always have the right to contact and lodge a complaint with the National Data Protection Commission.