



## Call for applications for Doctoral scholarships of the FCT PhD in Biotechnology and Biosciences (BIOTECnico)

**Scholarship Reference:** BIOTECnico Call 2019/20

**Main research field:** Biotechnology

### **Scholarship description:**

The PhD program in Biotechnology and Biosciences (BIOTECnico) has been selected for funding by the Portuguese Foundation for Science and Technology (FCT). The PhD program, which is offered by Instituto Superior Técnico (IST), University of Lisbon (ULisboa), and Institute for Bioengineering and Biosciences (iBB), has been awarded with four mixed PhD scholarships per year, for a 4-year period. The dissertation themes will be offered by the program research team members of iBB-IST and will be available within the Biological Sciences and Bioengineering research areas. The projects include a one-year secondment abroad at one of the international leading research institutions/universities that collaborate with iBB-IST.

BIOTECnico is an interdisciplinary four-year Doctoral program that provides PhD students with world-class training in Biotechnology and Biosciences. It is designed to attract national and foreign highly talented and motivated students and to prepare a new breed of creative researchers to translate basic biosciences discoveries and technological innovations into Industrial, Agro-Food, Health and Environmental Biotechnology applications. The program is anchored in two tracks: Biological Sciences and Biochemical Engineering. The Biological Sciences track offers an in-depth understanding of Molecular and Cellular Biology and Molecular and Microbial Biotechnology, with emphasis on Functional and Comparative Genomics and Bioinformatics and the exploitation of Integrative Microbiology and Systems and Synthetic Biology approaches. The Biochemical Engineering track offers education in the areas of Biocatalysis, Molecular and Bioprocess Engineering, Downstream Processing, Nanobiotechnology with a focus on harnessing Biomolecular and Cellular Processes, and mastering key technologies in order to develop innovative products and more efficient/sustainable processes. The program will also contribute to the development of the necessary skills for entrepreneurship in the Biotechnology field, including innovation, leadership, problem-solving and communication.

Under the terms set in the Statute of the Scientific Research Fellow approved by Decree-Law 40/2004 of 18 August, in its present wording (<http://www.fct.pt/apoios/bolsas/estatutobolseiro.phtml.pt>), and the Regulations for

Research Grants of FCT (<http://www.fct.pt/apoios/bolsas/regulamento.phtml.pt>), the BIOTECnico Directive Board opens a call for applications to scholarships for the BIOTECnico 2019/20 edition. In this call, four scholarships are made available. The actual number of awarded scholarships may be less, depending on the overall merit of the candidates.

In agreement with the regulations set up by FCT, the BIOTECnico Directive Board will be in charge of handling applications and the selection process, at the end of which the list of selected candidates will be sent to FCT, who will be responsible for awarding the scholarships.

The duration of the scholarship is one year in length, renewable for up to a total of four years, and cannot be awarded for periods of less than three consecutive months.

The scholarship period is expected to start on September 2019.

**Applicants:** Doctoral scholarships are intended for individuals who meet the requirements set forth in Article 30, number 1, of Decree Law no. 74/2006, of March 24, (republished by Decree-Law no. 115/2013 of August 7), as amended by Decree-Law no. 107/2008 of June 25, 230/2009 of September 14, Decree-Law n.º 63/2016 of September 13 and e Decree-Law n.º 65/2018 of August 16.

**Academic background and eligibility:** The BIOTECnico PhD program is open to individuals (Portuguese or foreign citizens who have permanent residence in Portugal) holding, at the time of application, an MSc diploma (or equivalent, accepted by IST-ULisboa) in Life Sciences, Bio/Engineering or related areas (upon decision of the Scientific Committee of the program). A strong academic background in biosciences or engineering and technology will be required. The selection of PhD candidates has to comply with the IST-ULisboa doctorate regulations, in particular concerning pre-required skills and competences. A requirement will be that the degree of the candidate allows him/her to follow the BIOTECnico program, also depending on the field/topic of choice for dissertation. For academic degrees awarded by foreign higher education institutions, the presentation of the recognition of the degree register academic and final classification conversion to the Portuguese scale (process regulated by Decree-Law n.º 341/2007 of 12th of October), or, as an alternative, obtaining equivalence/recognition of degrees (process regulated by and Decree-Law No. 66/2018, of August 16 and the ordinance nº 33/2019, of January 25) is mandatory. For more information the candidates should consult the website <https://www.ulisboa.pt/en/info/foreign-qualifications-0>.

As a general rule, minimum admission grades of 14/20 (for the undergraduate degree) and of 16/20 for the MSc degree are required, although exceptional students with proven research experience (e.g., publications) but lower grades may be successful during the selection procedure.

Applicants need to be fluent in written and spoken English and, unless native speakers, should demonstrate their proficiency in English.

For foreign candidates, a document demonstrating permanent and habitual residence in Portugal is required.

**Monthly allowance:** In agreement with the monthly maintenance stipend of doctoral scholarships attributed directly by FCT: <http://www.fct.pt/apoios/bolsas/valores.phtml.en>

**Period of the Call:** The call is publicly announced and is open from March 29 until May 12, 2019, at 17h00 (Lisbon time).

**Applications:** Individual applications should be submitted electronically using the application form available via the BIOTECnico web site at: [BIOTECnico.tecnico.ulisboa.pt/application](http://BIOTECnico.tecnico.ulisboa.pt/application)

**Evaluation Criteria:** BIOTECnico is a program for talented and highly motivated students of any nationality. Criteria for acceptance of a candidate are based on the excellence of the academic record and motivation, statement of purpose and letters of reference.

The selection and ranking criteria is a three-step procedure. Firstly, after the reception of the applications, a pre-assessment will be made by the IST PhD academic office to check whether each application conforms to the eligibility taking into account the admission criteria (Phase 1). The PhD academic office forwards all eligible applications to the Program Director who immediately starts the second phase of the selection and ranking process. The Scientific Committee will be responsible for ensuring the accurate progression of the evaluation process in compliance with Law 32/91 (20th July) and for writing the overall selection process report.

Evaluation and ranking is based on the following 3 main criteria taking into account diverse knowledge and qualifications:

- A. Academic qualifications (min mark – 0, max – 5 / weight – 5)
- B. Research experience relevant to the BIOTECnico program (min mark – 0, max – 5 / weight – 4)
- C. Scientific potential (min mark – 0, max – 5 / weight – 3)

These main criteria will be evaluated through the analysis of the candidates CV, motivation letter and recommendation letter(s). The classification attributed to the candidate's academic-CV is normalized, according to the FCT reference-base for BD, to account for differences between different diplomas (BSc, 2-step MSc, integrated MSc). The quality of the institution that granted the candidate's diploma is further taken into account. The ranking will favor candidates that are (co-)authors of papers in journals with peer reviewing, those that have presented communications in conferences and those having exceptional CVs demonstrating special skills, in line with the research areas of the BIOTECnico program. After each student is evaluated against the above evaluation criteria, the candidates will be ordered in a graded list (Phase 2).

The best 12 candidates or top 25% ones (whichever is a lower number) will be invited for an interview, either in person, or by video conference (Phase 3) to assess their background, specific technical skills, motivation and communication aptitudes in English. The results of this interview will further contribute to make an informed decision on the ranking of the candidates

concerning the 3 main criteria, in particular criteria B) and C) to identify the best candidates. The number of offered grants will be attributed to the top candidates. The grants that become available through renunciation or other reasons may be assigned to the next candidates on the reserve list, following the priority order.

**Announcement of results:** The results of this call will be published at Instituto Superior Técnico, Portugal, within 90 working days after the deadline to submit applications. All applicants will be informed of the results by e-mail. If the decision is not favorable for the award of the scholarship, the applicant has a period of 10 working days, after receiving notice of the decision, to contest the decision in a preliminary hearing setting. The final decision may be appealed to the Fundação para a Ciência e Tecnologia I.P., within 15 days after the respective notification.

**Complementary information:** Detailed information about the program is available on the BIOTECnico website: <http://BIOTECnico.tecnico.ulisboa.pt/>

**Funding:** The scholarships awarded under this Call will be financed by Portuguese funds of the “Ministério da Ciência, Tecnologia e Ensino Superior (FCT/MCTES)”, and, if eligible, by funds from “Fundo Social Europeu” through the “Programas Operacionais do período de programação 2014-2020”, the “Portugal 2020”, namely the “Programa Operacional Temático do Capital Humano”, the “Programa Operacional Regional do Norte, do Centro ou do Alentejo”, according to the provisions of the specific regulation applicable.

Any situations not covered in the present regulations are referred to the Regulations for Research Grants of FCT, available at:

<https://www.fct.pt/apoios/bolsas/regulamento.phtml.en>

Directive Board of the doctoral program BIOTECnico , March 13, 2019