

Research Studentships (for students of a course that does not award an academic degree)

Applications are open for one (01) Research Studentship within the framework of “**Pacto da Bioeconomia Azul**” (“**Blue Bioeconomy Pact**”) at “Associação do Instituto Superior Técnico para a Investigação e Desenvolvimento” (IST-ID) (reference C632741873-00467082, investment n.º 16), financed by the European Union and national funds through the “Instituto de Apoio às Pequenas e Médias Empresas e à Inovação” (IAPMEI) and the Recovery and Resilience Plan, under the following conditions:

Scientific Area: Biological Sciences

Admission Requirements:

- a) to hold a master’s degree in Biological Sciences, Biotechnology, Microbiology, Marine Biology or related areas;
- b) to be enrolled at a course that does not award an academic degree;
- c) not to exceed with this contract, including the possible renovations, an accumulated period of two years in this type of studentship, continuously or with interruptions.

Workplan:

1. Isolate and identify, by molecular approaches (e.g., ITS gene sequencing), yeast strains associated with macro/microalgae grown in aquaculture facilities;
2. Characterize phenotypically and genotypically (e.g., using genome sequencing and annotation) yeast strains associated with macro-, and microalgae grown in aquaculture facilities;
3. Select potential yeast probiotics able to promote algal growth or contribute to disease prevention/pathogen suppression using a controlled experimental design (microcosms);
4. Establish yeast-algae co-cultivation methods that contribute to better algal growth at the laboratory scale; establish adequate methodology enabling successful co-cultivation at the pilot scale;
5. Contribute to the creation of a bank of marine yeasts of biotechnological interest, namely oleaginous yeasts and yeasts capable of promoting algal growth in the laboratory and aquaculture facilities.

The objectives will be achieved within the framework of Work package 5 (“WP5 – Algae”) of the “Blue Bioeconomy Pact” project. The adequate conduction of the workplan is pivotal for the granting of the “Advanced Formation Diploma in Methodologies and Techniques of Scientific Research” to the grant holder by Instituto Superior Técnico, Universidade de Lisboa, and for the progress of the “Blue Bioeconomy Pact” Project.

Legislation and Regulations: Statute of Scientific Research Fellow, approved by Law nr. 40/2004, of August 18, as worded by Decree-Law nr. 123/2019, of August 28; FCT Regulation for Research Studentships and Fellowships, available on <https://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2019.pdf> and <https://dre.pt/application/file/a/127230968>.

Workplace: The work will be developed at the Institute for Bioengineering and Biosciences (iBB) of Instituto Superior Técnico, Universidade de Lisboa, under the scientific supervision of Professors Isabel Sá-Correia and Rodrigo da Silva Costa.

Duration: The research fellowship(s) will have a duration of 06 months. It is expected to begin in June 2024 and not renewed.

Monthly maintenance allowance: According to the values for Research Fellowships awarded by FCT in Portugal (https://www.fct.pt/wp-content/uploads/2024/02/Tabela-de-Valores-SMM_atualizacao-2024.pdf), the amount of the monthly maintenance allowance is €1 259,64, being the payment method an option of the Fellow by Wire Transfer/Check.

Selection methods: The selection methods will be the following: *Curriculum* evaluation, with eventual individual interview if necessary. The criteria used to evaluate the candidates' curricula will be as follows:

1. Familiarity with laboratory techniques and methods in basic microbiology, such as microbial cultivation and preparation of culture media and chemical solutions, with emphasis on the cultivation of yeasts (20%);
2. Familiarity with laboratory techniques and methods in molecular biology, such as e.g., DNA extraction, agarose and polyacrylamide gel electrophoresis, genotyping methods, notions of molecular taxonomy, with preference for molecular taxonomy of yeasts, notions of functional and comparative genomics, preferentially including basic knowledge of metagenomics principles (25%);
3. Academic trajectory. Bachelor's and Master's final grades, with special value attributed to indicators of the academic qualifications of the candidate (e.g., quality of the Master thesis dissertation, scientific initiation in the areas mentioned above, participation in scientific conferences and as author/co-author in scientific publications) (25%);
4. Demonstrated capacity to carry out the research plan described above (30%).

Composition of the selection Jury:

Professor Isabel Sá Correia (Department of Bioengineering, Instituto Superior Técnico)

Professor Rodrigo da Silva Costa (Department of Bioengineering, Instituto Superior Técnico)

Doctor Tina Keller-Costa (Department of Bioengineering, Instituto Superior Técnico)

Announcement/ notification of the results: The final evaluation results will be communicated to all applicants by email.

Deadlines and procedures of complaint and appeal. A complaint may be lodged from the final decision within 15 working days, or an appeal to the Executive Board of IST-ID within 30 working days, both counted from the respective notification

Application deadline and formalization: The call is open from May 9 until May 22, 2024.

It is mandatory to formalize applications with the submission of the following documents: i) B1 Form – Fellowship application (<https://ist-id.pt/concursos/bolsas/>); ii) *Curriculum Vitae*; iii) academic degree certificate, where applicable; iv) proof of enrollment at a course that does not award an academic degree; v) motivation letter; vi) declaration on honour that the applicant does not exceed with this contract an accumulated period of two years in this type of studentship, continuously or with interruptions.

Applications must be submitted to the following e-mail addresses: isacorreia@tecnico.ulisboa.pt; rodrigoscosta@tecnico.ulisboa.pt; isamar@tecnico.ulisboa.pt