

### Research Studentships (for Master or Integrated Master students)

Applications are open for 01 Research Studentship (Master student), within the framework of the project “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:** *To be enrolled at an integrated master or master degree course in Microbiology, Biotechnology, Bioengineering or related areas at Instituto Superior Técnico, University of Lisbon;*

#### Workplan:

1. Conduct experiments for the cultivation and isolation of anaerobic and microaerophilic bacteria from sessile marine invertebrates such as marine sponges and corals;
2. Identify and infer the phylogeny of the pure cultures obtained using 16S rRNA gene and whole genome sequencing approaches;
3. Perform biochemical (e.g., Analytical Profile Index - API) and physiological (e.g. temperature, pH and salinity growth ranges) bioassays to characterize potential novel species and genera of microaerophilic bacteria;
4. Propose and validate novel species names, in case the phylogenetic, phylogenomic, phenotypic and biochemical assessments support it, under the International Code of Nomenclature of Prokaryotes (ICNP), catalogue the strains for ‘The Portuguese Blue Biobank’ and participate in the preparation of manuscripts to formally describe novel bacterial species.

The objectives will be achieved within the framework of Work package 9 (“WP9 – The Portuguese Blue Biobank”) of the “Blue Bioeconomy Pact” project. The adequate conduction of the workplan is pivotal for the granting of the Master’s degree to the successful candidate 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 Prof. Rodrigo da Silva Costa and Dr. Tina Keller-Costa.

**Duration:** The research fellowship(s) will have the duration of 12 months. It’s expected to begin in June 2024, and may be eventually renewed up to the maximum of 18 months, including the duration of the initial contract.

**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](https://www.fct.pt/wp-content/uploads/2024/02/Tabela-de-Valores-SMM_atualizacao-2024.pdf)), the amount of the monthly maintenance allowance is € 990,98, 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. Previous experience / participation in sampling campaigns dedicated to the cultivation-dependent and -independent analyses of bacterial symbionts of animal hosts. Documentation of diving experience and presentation of a diving certificate will be considered a plus (20%);

2. Familiarity with laboratory techniques and methods in basic microbiology, such as microbial cultivation and preparation of culture media and chemical solutions. Previous laboratory experience in the study of marine host-microbe interactions and isolation from microaerophilic bacteria will be considered a plus (35%);
3. Familiarity with laboratory techniques and methods in molecular biology, such as e.g., DNA extraction, PCR, and agarose gel electrophoresis and genotyping methods. Acquaintance with bioinformatics tools used in the analysis of nucleic acid sequences and bacterial genomes, notions of molecular taxonomy and phylogeny, preferentially when applied to the study of bacteria, will be considered a plus (35%);
4. Academic trajectory, with special value attributed to frequency in post-graduation courses and other training programmes in microbiology, quality of monographs, scientific training in the areas of microbiology and molecular biology, participation in internships, workshops, etc.). Quality of scientific and career development statement, as manifested in the candidate's motivation letter (10%).

**Composition of the selection Jury:** Professor Rodrigo da Silva Costa (Department of Bioengineering, Instituto Superior Técnico); Doctor Tina Keller-Costa (Department of Bioengineering, Instituto Superior Técnico); Doctor Maria Teresa Ferreira Cesário Smolders (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 April 29 until May 13, 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 an academic degree course (Master or Integrated Master) v) motivation letter.

Applications must be submitted to the following email addresses: [rodrigoscosta@tecnico.ulisboa.pt](mailto:rodrigoscosta@tecnico.ulisboa.pt); [tinakellercosta@tecnico.ulisboa.pt](mailto:tinakellercosta@tecnico.ulisboa.pt); [mafalda.firmino@tecnico.ulisboa.pt](mailto:mafalda.firmino@tecnico.ulisboa.pt)