

(BL98/2026-IST-ID)

## Post-Doctoral Research Fellowships

Applications are open for 1 Post-Doctoral Research Fellowship, within the framework of the project “*OctoBiome - Microbiome-Guided Solutions Against Emerging Pathogens in Octocorals: Enhancing Host Health and Resilience to Climate Change*” to be carried out at the R&D institution “*Associação do Instituto Superior Técnico para a Investigação e o Desenvolvimento (IST-ID)*”, with the project reference: 2024.14436.PEX, financed by national funds through FCT/MCTES (PIDDAC), under the following conditions:

**Scientific Area:** Biological Sciences

### Admission Requirements:

- a) *To hold a PhD degree obtained in the 3 years previously to the submission of the fellowship application;*
- b) *To have carried out the research work that led to the PhD degree in a different entity from the host institution of the fellowship;*
- c) *Not to exceed, with this fellowship contract, including the possible renovations, an accumulated period of 3 years in this type of fellowship, continuously or with interruptions;*
- d) *Not to have previously held a post-doctoral fellowship from IST-ID.*

### Synopsis of the research project and Postdoc-position:

This project investigates the role of the microbiome in octocoral resilience to climate change and pathogen stress, with the goal of developing probiotic-based solutions for octocoral conservation. Using mesocosm experiments, coral physiology read-outs, amplicon sequencing and shot-gun metagenomics, the project will examine how warming and pathogens alter octocoral holobiont function and whether targeted, octocoral-derived probiotics can mitigate coral stress and mortality. The experimental work will be conducted in collaboration with Prof Raquel Peixoto at KAUST, Saudi Arabia and includes field sampling and aquarium experiments at KAUST. Candidates must be able to travel and willing to spend an extended research period (several weeks to months) at KAUST.

### Workplan:

1. Design and test a suitable probiotic cocktail for the octocoral *Sclerophytum* in mesocosm experiments under elevated temperature and fungal pathogen stress.
2. Collect and process coral holobiont samples from the experiment and help supervise MSc students conducting taxonomic profiling of the octocoral microbiome (16S rRNA gene amplicon sequencing).
3. Perform whole shotgun metagenomic sequencing and functional profiling of the octocoral microbiome, including analysis of microeukaryotes, prokaryotic MAGs, and/or viromes.
4. Contribute to writing scientific articles, disseminating results, and strengthening outreach and knowledge-transfer activities.

**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://dre.pt/application/file/a/127230968>.

**Workplace:** The work will be developed at Institute for Bioengineering and Biosciences (iBB), Associação do Instituto Superior Técnico para a Investigação e o Desenvolvimento, under the scientific supervision of Prof Tina Keller-Costa, and co-supervision of Prof Rodrigo Costa, and at the collaborative institution King Abdullah University of Science and Technology (KAUST; Prof Raquel Peixoto’s laboratory) in Saudi Arabia.



Fundação  
para a Ciência  
e a Tecnologia

**Duration:** The research fellowship(s) will have a duration of 12 months and cannot be renewed.

**Monthly maintenance allowance:** According to the values for Research Fellowships awarded by FCT in Portugal (<https://www.fct.pt/fct-atualizou-o-valor-das-bolsas-para-2026>), the amount of the monthly maintenance allowance is € 1 901,00, being the payment method an option of the Fellow by Wire Transfer/Check.

**Selection methods:** The selection methods will be the following:

1. Relevance of a PhD in the field of marine microbiome research or marine holobiont response to climate change stresses (experience with coral holobionts or marine probiotic development is an asset) (20 points)
2. Scientific publications, conference presentations (poster/oral communications), outreach and/or knowledge transfer related with marine microbiome or coral holobiont research (20 points).
3. Familiarity and experience in conducting *in vivo* aquarium experiments with marine animals, preferably corals (SCUBA diving skills and field sampling experience can be an advantage) (20 points).
4. Experience and familiarity with 16S rRNA amplicon sequencing and/or shot-gun metagenomics and bioinformatics skills (experience in data processing using R/RStudio and/or Python is desirable) (20 points).
5. Experience in classic Microbiology and manipulation of bacteria and/or fungi in the laboratory (20 points).

**Composition of the selection Jury:**

Prof Dr Tina Keller-Costa (Departamento de Bioengenharia, Instituto Superior Técnico)

Prof Dr Rodrigo da Silva Costa (Departamento de Bioengenharia, Instituto Superior Técnico)

Prof Dr Arsénio do Carmo Sales Mendes Fialho (Departamento de Bioengenharia, 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 June 12 until June 25, 2026.

It is mandatory to formalize applications with the submission of the following documents:

- i) B1 Form – Fellowship application (<https://ist-id.pt/recursos-humanos/bolseiros/#documentos-relacionados>);
- ii) *Curriculum Vitae*;
- iii) Academic degree (PhD) certificate;
- iv) Motivation letter;
- v) Declaration on honour that the applicant does not exceed with this contract an accumulated period of three years in this type of fellowship, continuously or with interruptions, within the technological and scientific system, and that the research work that led to the PhD degree was carried out in a different entity from the host institution of the fellowship.

Applications must be submitted to the email: Dr Tina Keller Costa ([tinakellercosta@tecnico.ulisboa.pt](mailto:tinakellercosta@tecnico.ulisboa.pt)) and Mafalda Firmino ([mafalda.firmino@tecnico.ulisboa.pt](mailto:mafalda.firmino@tecnico.ulisboa.pt)).



Fundação  
para a Ciência  
e a Tecnologia