

Post-Doctoral Research Fellowships

Applications are open for 1 Post-Doctoral Research Fellowship, within the framework of project “Economic valorization of the invasive alga *Rugulopteryx okamurae* using a circularity approach” to be carried out at Associação do Instituto Superior Técnico para a Investigação e Desenvolvimento (IST-ID), with the reference “Projetos de IC&DT - Projeto nº 14838 - LISBOA2030-FEDER-00838300 financed by national funds through FCT/MCTES (PIDDAC) and co-financed by the European Regional Development Fund (FEDER) through COMPETE – “Programa Operacional Fatores de Competitividade (POFC)” under the Partnership Agreement PT2030”, under the following conditions:

Scientific Areas: Bioengineering, Biotechnology and Biochemistry; Chemistry and Chemical Engineering

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.*

Workplan: *Rugulopteryx okamurae* is an invasive brown seaweed that is currently causing great concern for being responsible for changes in biodiversity and affecting fishing and tourism in coastal places of the Iberian Peninsula and its islands. Aiming at the exploitation of this biomass, the selective extraction of different bioactive fractions of *Rugulopteryx okamurae* using alternative green solvents and technologies is envisaged. Techniques such as Supercritical Fluid (SFE), Pressurized-Liquid (PLE) and the use of Deep Eutectic Solvents (DES) will be assessed to extract polyphenols, terpenoids, bioactive polysaccharides and proteins. For each fraction, the composition, purity and bioactivity of the target biomolecules will be evaluated and compared to conventional methods. The most effective fractionation sequence for the complete use of the resource will be selected.

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 iBB - Institute of Bioengineering and Biosciences and CQE – Centro de Química Estrutural of Instituto Superior Técnico, under the scientific supervision of Professor Marília Mateus, Dr. Beatriz Nobre and Professor José Coelho.

Duration: The research fellowship will have the duration of 12 months. It is expected to begin on the 1st November 2025 and may be eventually renewed up to the maximum of 21 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/fct-atualizou-o-valor-das-bolsas-para-2025/>), the amount of the monthly maintenance allowance is € 1,851.00 being the payment method an option of the Fellow by Wire Transfer/Check.

Selection methods: The selection methods will be the following:

The selection method will comprise curriculum evaluation and an individual interview if necessary. The curriculum evaluation criteria will be the following:

1. Experience with conventional aqueous and organic solvent extraction techniques applied to natural products (30 % weight)

2. Experience in performing chemical and biochemical analyses using spectrometry (HPLC and GC) and spectrophotometry coupled with detectors such as flame ionization detectors (FID), diode array detectors (DAD), or mass spectrometers (MS) for identification and quantification (40 % weight);
3. Academic career. Attention will be paid to the candidate's dissemination results such as presentations in scientific meetings and participation in scientific publications (30 %).

Composition of the selection Jury: Prof. Marília Clemente Velez Mateus; Prof. José Coelho and Dra. Maria Teresa Ferreira Cesário Smolders.

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 September 29 until October 15, 2025.

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; iv) motivation letter; v) declaration of honor 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: teresa.cesario@tecnico.ulisboa.pt