

(BL161/2023-IST-ID)

Post-Doctoral Research Fellowships

Applications are open for one Post-Doctoral Research Fellowship(s), within the framework of the project IMPACTIVE (Innovative Mechanochemical Processes to synthesize Active pharmaceutical ingredients), financed by the European program Horizon, under the following conditions:

Scientific Area: Chemistry and Chemical Engineering

Admission Requirements:

- a) *to hold a PhD degree obtained in the 3 years previously to the beginning of the fellowship;*
- 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: To apply Quality-by-Design (DoE) concepts and design of experiments (DoE) to the mechanochemical synthesis of new pharmaceutical cocrystals. The structural characterization of the compounds will be carried out by a combination of techniques, with major emphasis in powder and single crystal X-ray diffraction. Further characterization of the properties of the compounds includes solubility and stability studies to define the Design Space of the mechanochemical process.

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; Regulation of Research Fellow by IST-ID, available at <https://ist-id.pt/concursos/bolsas/>; Regulation of Research Fellow by FCT, available at <https://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2019.pdf> and <https://dre.pt/application/file/a/127230968>.

Workplace: The work will be developed at Centro de Química Estrutural/Institute of Molecular Sciences and Laboratório Associado para a Química Verde (LAQV-REQUIMTE), of Instituto Superior Técnico and NOVA School of Science and Technology, respectively, under the scientific supervision of das Doctors Vânia André and Clara Gomes and Professor M. Teresa Duarte.

Duration: The research fellowship(s) will have the duration of 30 months. It's expected to begin in June 2023 and may be eventually renewed up to the maximum of 36 months.

Monthly maintenance allowance: According to the values for Research Fellowships awarded by FCT in Portugal (<http://www.fct.pt/apoios/bolsas/valores>), the amount of the monthly maintenance allowance is 1741€, being the payment method an option of the Fellow by Wire Transfer/Check.

Selection methods: The selection methods will be the following: Curriculum evaluation and individual interview, with the respective weight of 50:50.

Composition of the selection Jury: Vânia Mafalda de Oliveira André, Maria Teresa Nogueira Leal da Silva Duarte, Clara Sofia Barreiro Gomes, Mafalda Sofia Coelho da Cruz Sarraguça.

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

Application deadline and formalization: The call is open from May 22 until June 2, 2023.

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 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 emails: vaniandre@tecnico.ulisboa.pt and clara.gomes@fct.unl.pt