

(BL147/2025-IST-ID)

Research Fellowship (for master students)

Applications are open for 1 Scientific Initiation Studentship, within the framework of project/R&D institution (1801P.01373 - NOSEVAC-Modelling/CEMAT), financed by international funds through European Union, under the following conditions:

Scientific Area: Applied Mathematics

Admission Requirements:

- *The candidate must be enrolled in a Master's degree in Mathematics, Statistics, Biostatistics, Data Science, Computer Science, or a related field*
- *The candidate must have excellent verbal and written English communication skills*
- *He/she must have proven experience in statistical analysis, applied mathematics and probability, and data science, preferably applied to biological models (courses, reports, articles, projects)*
- *He/she must have strong proficiency in Python and/or R for data analysis and other software for statistical and mathematical modeling*
- *He/she must have strong communication and collaboration skills, especially in a multidisciplinary team environment*

Workplan: The candidate will display a high degree of motivation for research. He/she will have experience in mathematical modeling and programming. He/she will perform experimental data analysis and modeling, in collaboration with NOSEVAC consortium partners. The focus will be on *Bordetella pertussis* dynamics in-vitro but can also be extended to other systems and data related to vaccination. The student will also apply data fitting algorithms machine learning algorithms to link models to biological data. The project integrates elements from dynamical systems, ordinary differential equations, linear algebra, calculus and probability and statistics.

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; https://ist-id.pt/files/sites/43/regulamento-de-bolsas-da-ist_id-2.pdf

Workplace: The work will be developed at CEMAT of IST-ID, under the scientific supervision of Dr .Erida Gjini

Duration: The research fellowship will have the duration of 3 months. It's expected to begin in 07/2025, and may be eventually renewed up to the maximum of 6 months, including the duration of the initial contract.

Monthly maintenance allowance: the amount of the monthly maintenance allowance is €1.040,98 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 the respective weight of 100%. Shortlisted candidates may be invited for an interview.

Composition of the selection Jury: *Erida Gjini, Susana Vinga, Sten Madec*

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 16 until June 30, 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, where

applicable; iv) proof of enrollment at an academic degree course; v) motivation letter. vi) transcript of grades and relevant courses/trainings; vii) any example of written scientific work by the candidate (optional)

Applications must be submitted to the email: erida.gjini@tecnico.ulisboa.pt