

CALL FOR A RESEARCH FELLOWSHIP
Fellowship Reference IMM/BII/5-2024

Instituto de Medicina Molecular João Lobo Antunes (iMM) opens a call for one research fellowship under the project *“The impact of germline metabolic reprogramming on reproduction and physiology”* (ERC Stg, SweetEggs – 101043068), with the funding support from the European Commission.

Scientific Area(s) Animal physiology, Nutrition, Reproductive biology

Fellowship recipients / Admission requirements: Any National, foreign and stateless candidate(s) that fulfill the necessary conditions to be enrolled in an MSc course (in area related to the work plan) can apply.

Applicants must hold the following requirements:

- BSc degree holder in Biomedical Engineering;
- Knowledge and background in Biology and Biochemistry, Machine learning, Computational Biology, Data Science, Functional Genomics and Statistics;
- Experience in experimental laboratory;
- Proficiency in using programming languages, including Python, R, and Matlab;
- Motivation and interest for science;
- Collaborative and good communication skills;
- Meticulousness;
- Autonomy;
- English fluency.

Work Plan and Objectives:

Drosophila melanogaster has emerged as a powerful model system to unravel the mechanisms governing the interaction between diet and metabolism, especially in the context of female fertility. We will use this system to tackle questions such as: a) where, when and how are metabolic programs implemented during oocyte development; b) how is metabolic reprogramming affected during aging; and c) how conserved are processes of physiological metabolic reprogramming across animals. To ask these questions, we will use computational approaches to:

- analyze available ovarian single-cell RNA-sequencing and metabolomics datasets
- generate trajectories of metabolic enzymes' expression across cell-types, dietary conditions, ages, and species
- integrate these findings with metabolome changes detected across dietary conditions and ages in metabolomics analysis datasets to develop a comprehensive model of how ovarian metabolism changes during development, nutritional challenges and aging.

Legislation and Applicable Regulation: Estatuto do Bolseiro de Investigação (Lei n.º 40/2004, de 18 de Agosto, republished in attachment to Decreto-Lei n.º 202/2012, de 27 de Agosto, changed by **Decreto-Lei n.º 123/2019, 28 de Agosto**), current Regulation of Fellowships of iMM and iMM Career By-Law and Assessment regulations.

Predicted start date, duration and renewal conditions: The fellowship contract is predicted to start in May 2024, for a period of 13 months on an exclusive basis, eventually renewable until the maximum stipulated in applicable regulations, not exceeding the eligibility period of the project.

Work place and Scientific orientation: The research activities will be developed at Organismal Metabolic Physiology Lab of IMM, under the supervision of Dr. Zita Carvalho-Santos, and at INESC-ID and Dept. Computer Science and Engineering/Dept. Bioengineering of IST under the supervision of Prof. Susana Vinga.

Non-discrimination and equal access policy: IMM undertakes to ensure compliance with the principles of non-discrimination and equality and to that extent, provides that no candidate can be privileged, benefited, harmed or deprived of any right or exempted from any duty due in particular ancestry, age, gender, sexual orientation, marital status, family status, economic status, education, social origin or condition, genetic heritage, reduced working capacity, disability, chronic disease, nationality, ethnic origin or race, place of origin, language, religion, political or ideological convictions and trade union membership.

International environment and experience: Diversity is a fundamental aspect of the essence of IMM, where researchers and non-researchers of different nationalities, backgrounds and areas of study work together, promoting the exchange of experiences and interactions, contributing to the personal and professional development of each person and to the existence of an international, inclusive and stimulating environment.

Research Fellows Support Centre: The Research Fellows Support Centre works on Tuesdays and Thursdays from 08:30AM to 6:00PM at Human Resources Office.

Fellowship financial conditions: The fellow will benefit from a monthly stipend in the amount of 1064€. The amount will be paid by wire transfer at the end of each month. The fellow will also benefit from a personal accident insurance to execute the proposed research activities as well as the right to Social Security through Voluntary Social Insurance regimen, if wanted, under the terms of Código dos Regimes Contributivos do Sistema Previdencial de Segurança Social, and the contributions costs will be supported by the research project.

Application documents:

- Motivation Letter in English;
- Detailed CV in English;
- BSc certificate;
- Contacts of 2 references;
- Candidate's declaration of honor indicating previous fellowships, if any, its typology and duration.

The non-compliance with these requirements determines the immediate rejection of the application.

In case the applicant does not have yet the required degree certificate, a declaration of honor stating the conclusion of the necessary qualifications for the purposes of this process will be accepted and must be sent by the end date of the call.

Jury evaluation and selection: Dr. Zita Carvalho-Santos (iMM), Dr. Patrícia Francisco (iMM), Dr. Catarina Pereira (iMM).

Selection methods: Applications will be evaluated in accordance with the following method:

- 1st Phase: Curriculum vitae: 50% and Motivation letter: 25%;
- 2nd Phase: Interview: 25%. A maximum of 3 candidates who score > 75% in 1st phase will be selected for an interview.

Deadlines and application process: The call is open for a minimum period of 10 working days, starting on 31st January 2024 and ending on 14th February 2024. Applications should be submitted through iMM website, by clicking in the “Apply” button below the position job ad. *The non-compliance with these requirements determines the immediate rejection of the application.*

Notification of results: The evaluation results will be announced within 90 days after the termination of the applications submission deadline, by writing and publishing a jury meeting minute at iMM website at <https://imm.medicina.ulisboa.pt/jobs/#results> with all process of recruitment, evaluation and selection including a list of all excluded and admitted candidates and for these last ones, their classification. All admitted candidates will be notified by email.

Preliminary Hearing and Final Decision Deadline: After notification, all candidates have 10 working days to respond. Panel’s final decisions are pronounced within a period of 90 days, from application deadline.

Fellowship contracting: The Fellowship is granted through the signature of a [contract](#) between iMM and the selected fellow and after the fellow send the following mandatory documents: copy of identification document (in case of non-European citizens is mandatory the work visa / valid resident permit), document proving the required academic degree and the document proving the enrollment in a MSc course.

For each Fellowship period an [Activity Report](#) must be prepared by the fellow as well as the [Report](#) by the supervisor.

Lisbon, 30 January 2024

The Executive Director of iMM
Professor Maria Manuel Dias da Mota

