

INSTITUTO DE MEDICINA MOLECULAR JOÃO LOBO ANTUNES

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Jury Meeting Minute

Reference of Fellowship IMM/BII/5-2024

Instituto de Medicina Molecular João Lobo Antunes (iMM) opens a call for 1 (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.

The ad was published at EURAXESS Portugal Portal on 30th of January 2024 and also disseminated in iMM website. The call was opened from 31st of January 2024 until 14th of February 2024 and during which the following applicant applied:

- ✓ Filipa Daniela Barras de Matos Manuel
- ✓ Luís Manuel Silvestre Farrolas

On the 28 of February of 2024, the jury composed by Zita Carvalho-Santos (iMM), Patrícia Francisco (iMM) and Catarina Pereira (iMM) met to analyze the application documents (motivation Letter in English, detailed CV, BSc certificate, contacts of 2 references and declaration of honor indicating previous fellowships, if any, its typology and duration).

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.

Candidate's Profile:

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.

Necessary Documents for Applications: - 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.

Selection Method: 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.

Curriculum Vitae (50%)

The Curriculum Evaluation took in consideration the following criteria:

- BSc degree holder in Biomedical Engineering (25%);
- Knowledge and background in Biology and Biochemistry, Machine learning, Computational Biology, Data Science, Functional Genomics and Statistics (10%);
- Experience in experimental laboratory (5%);
- Proficiency in using programming languages, including Python, R, and Matlab (10%).

Motivation Letter (25%)

The Motivation Letter took in consideration the following criteria:

- Motivation and interest for science (10%);
- Motivation and interest in the proposed work plan (10%)
- English fluency (5%).

Interview (25%)

The Interview took in consideration the following criteria:

- Collaborative and good communication skills (10%);
- Adequacy of the profile towards the activity to be performed (10%)
- English fluency (5%).

The analysis and discrimination of the admitted candidate's classification in the sole phase of this process are presented in Annex I.

At this stage, the selected candidate is the one with the highest score.

Lisbon, 1st of March 2024



Zita Carvalho-Santos (iMM)



Patrícia Francisco (iMM)



Catarina Pereira (iMM)

ANNEX I - EVALUATION: Fellowship Reference IMM/BII/5-2024

Applicant	Curriculum Vitae (50%)				Motivation Letter (25%)			Total	Justification
	BSc degree holder in Biomedical Engineering (25%)	Knowledge and background in Biology and Biochemistry, Machine learning, Computational Biology, Data Science, Functional Genomics and Statistics (10%)	Experience in experimental laboratory (5%)	Proficiency in using programming languages, including Python, R, and Matlab (10%)	Motivation and interest for science (10%)	English fluency (5%)	Motivation and interest in the proposed work plan (10%)		
Filipa Daniela Barras de Matos Manuel	0%	0%	5%	4%	10%	5%	0%	24%	The candidate has a degree in Biology and no formal training in either of the required areas of computational sciences or programming languages (excepting for one). The candidate also has a vast experience in experimental lab, in multiple contexts. The candidate motivation letter is well written, demonstrates interest in pursuing research, however does not mention the specificities of the proposed project and lab field of research, but rather general concepts.
Luís Manuel Silvestre Farrolas	25%	10%	2%	10%	10%	5%	10%	72%	The candidate has a degree in Biomedical Engineering and formal training in all required areas of computational sciences. The candidate also has expertise and is proficient in multiple programming languages and had some contact with experimental lab. The candidate motivation letter is well written, demonstrates interest in pursuing research and particularly in the proposed project and lab field of research.

Zita Carvalho-Santos (iMM)



Patrícia Francisco (iMM)



Catarina Pereira (iMM)



ANNEX I - EVALUATION: Fellowship Reference IMM/BII/5-2024

Applicant	Interview (25%)			Total	Justification	Total ANNEX I + ANNEX II
	Collaborative and good communication skills (10%)	Adequacy of the profile towards the activity to be performed (10%)	English fluency (5%)			
Luís Manuel Silvestre Farrolas	10%	10%	5%	25%	The candidate also expertise and is proficient in multiple programming languages and had some contact with experimental lab. The candidate showed a high interest in the research developed in the host lab. He has experience on computational approaches that will be used in this project. Enthusiastic and friendly personality with very good spoken English.	97%

Zita Carvalho-Santos (iMM)

Zita Santos

Patrícia Francisco (iMM)

Patrícia Francisco

Catarina Pereira (iMM)

Catarina Brás Pereira

Declaração de inexistência de conflito de interesses (CDI)

Os membros do júri do Concurso para Atribuição de 1 (uma) Bolsa de Investigação, Ref.^a IMM/BII/5-2024, aberto ao abrigo do projeto “*The impact of germline metabolic reprogramming on reproduction and physiology*” (ERC Stg, SweetEggs – 101043068), vêm por este meio declarar que não se encontram em situação de conflito de interesses que os impeça de participar no respetivo processo de seleção e atribuição de bolsa.

Declaram também manter a confidencialidade ao longo do processo de avaliação.

Lisboa, 28 de fevereiro de 2024

Zita Carvalho-Santos [iMM]

Patrícia Francisco [iMM]

Catarina Pereira [iMM]