

INSTITUTO DE MEDICINA MOLECULAR JOÃO LOBO ANTUNES

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Jury Meeting Minute

Reference of Fellowship IMM/BI/24-2023

Instituto de Medicina Molecular João Lobo Antunes (iMM) opens a call for one research fellowship under the project “**LA/P/0082/2020**” with the funding support from Fundação para a Ciência e a Tecnologia, IP.P. / MCTES through national funds (PIDDAC).

The ad was published at EURAXESS Portugal Portal on the 19th of December 2023 and also disseminated in the iMM website.

The call was opened from the 20th of December 2023 until the 4th of January 2024, during which the following applicants applied:

- ✓ André Filipe Cisneiros Ferreira Salgado
- ✓ Bárbara Ferreira Rodrigues
- ✓ Juan Fernández García-Moreno

On the 8th of January 2024 the jury composed by Ana Santos Almeida (iMM), Ana Teresa Freitas (INESC-ID/IST) and Catarina Milho (iMM) met to analyse the application documents (Motivation Letter, CV or Resume, MSc certificate and Contacts of 2 references).

Work Plan and Goals:

As a PhD student in this role, you will be at the forefront of developing a computational platform that incorporates the use of machine learning techniques adapted to the analysis of human microbiome data for predicting patients' risk of colorectal cancer (CRC) and their response to cancer therapy. Your responsibilities will include:

- *Developing and implementing computational pipelines for the automatic extraction and analysis of human microbiome data. These pipelines must consider a federated operation mode since they will deal with large volumes of data scattered across different databases;*
- *Conducting shotgun metagenomics analysis to extract valuable insights from microbiome data;*
- *Integrating microbiome data with clinical information, lifestyle factors, and blood genomic biomarkers;*
- *Contributing to the intellectual environment of the lab and institute by participating in scientific discussions, seminars, conferences, and peer-reviewed publications.*

Candidate's Profile:

- *MSc in Computational Sciences and Engineering, or related disciplines with proven training in big data and health data analysis.*
- *Knowledge in bacterial genomics and microbiome research.*
- *Expertise in analysing and interpreting omics data, particularly metagenomics.*
- *Proficiency in programming languages like Python, Java and SQL.*
- *Experience in cloud computing.*
- *Practical experience in machine learning techniques.*

- Training in scientific writing demonstrated through at least one scientific paper published as the first author.
- Strong organisational skills and attention to detail.
- Excellent written and oral communication skills in Portuguese and English.

Ana Luísa Freitas

Preferential:

- Ability to thrive in a fast-paced, highly interdisciplinary environment;
- Flexible mindset focused on solutions and innovative problem-solving skills;
- Forward-thinking, can-do, proactive attitude;
- Ability to work both independently and collaboratively.

The international experience of the candidates, although not a determining criterion for selection, will be valued.

Necessary Documents for Applications: - Motivation Letter; - CV or Resume; - MSc certificate; - Contacts of 2 references **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:

1st Phase: Curricular evaluation: 40% and Motivation Letter: 20%;

2nd Phase: Interview: 40%. Only candidates who score a minimum of 50% in Phase 1 will be interviewed and only the top 3 candidates will be interviewed.

Curricular Evaluation (40%)

The Curriculum evaluation took in consideration the following criteria:

- MSc in Computational Sciences and Engineering, or related disciplines with proven training in big data and health data analysis (10%);
- Knowledge in bacterial genomics and microbiome research (10%);
- Expertise in analyzing and interpreting omics data, particularly metagenomics (5%);
- Proficiency in programming languages like Python, Java and SQL (5%);
- Experience in cloud computing (2.5%);
- Practical experience in machine learning techniques (2.5%);
- Training in scientific writing demonstrated through at least one scientific paper published as the first author (5%).

Motivation Letter (20%)

The Motivation Letter took in consideration the following criteria:

- Interest and motivation to perform the activities described (10%);
- Written communication (10%).

The analysis and discrimination of the admitted candidate's classification in the 1st Phase of this process are presented in Annex I.

Interview (40%)

Only 1 applicant scored at least 50% in Phase 1 and was selected for an interview. The applicants are identified below and the interviews took place on January 11th, 2024.

- André Filipe Cisneiros Ferreira Salgado.

Based on the interview the jury evaluated the following:

- Adequacy of the profile towards the activity to be performed (15%);
- Spoken English and Communication Skills (15%);
- Interpersonal skills relevant for this position (10%).

The analysis and discrimination of the admitted candidate's classification in the 2nd Phase and total score in both phases of this process are presented in Annex II.

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

Lisbon, 15th of January 2024

Ana Santos Almeida (iMM)



Ana Teresa Freitas (INESC-ID/IST)



Catarina Milho (iMM)



Ana Santos Almeida

Ana Terra Freitas

Ana Catarina Miller

ANNEX I - EVALUATION: Fellowship Reference IMM/BI/24-2023

Applicant	1st Phase (60%)									Total	Justification
	Curricular evaluation (40%)							Motivation Letter (20%)			
	MSc in Computational Sciences and Engineering, or related disciplines with proven training in big data and health data analysis (10%)	Knowledge in bacterial genomics and microbiome research (10%)	Expertise in analyzing and interpreting omics data, particularly metagenomics (5%)	Proficiency in programming languages like Python, Java and SQL (5%)	Experience in cloud computing (2.5%)	Practical experience in machine learning techniques (2.5%)	Training in scientific writing demonstrated through at least one scientific paper published as the first author (5%)	Interest and motivation to perform the activities described (10%)	Written communication (10%)		
André Filipe Cisneiros Ferreira Salgado	10,0	10,0	5,0	5,0	2,5	2,5	5,0	10,0	10,0	60,0	The candidate has a Msc. in Computer Science and Engineering, with training in big data and complex data in health. He also has a MSc. in Health and Medical Data Analytics, which is a plus. The CV of the candidate shows that their academic and scientific profile is fully suited to the role. The candidate has one first author paper in bacterial genomics and has won some prizes for his work. Regarding their Motivation Letter, it is obvious their interest and motivation in the project to be developed and to perform the proposed activities. It is also perceptible their great written communication skills.
Bárbara Ferreira Rodrigues	0,0	8,0	0,0	0,0	0,0	0,0	0,0	0,0	5,0	13,0	The candidate has a MSc. in Biotechnology and no proven expertise in programming, cloud computing or machine learning. There are no papers mentioned in her CV. The candidate did not explained why she wanted to join the lab or why she would be a good fit. The CV and motivation letter are written in Portuguese, which does not allow to infer her level of communication in English.
Juan Fernández García-Moreno	5,0	0,0	4,0	2,5	0,0	0,0	5,0	10,0	10,0	36,5	The candidate has a Msc. in Genetics and Cell Biology. Although the candidate's Motivation Letter shows their interest and motivation to develop the proposed activities and excellent written communication skills, he is lacking knowledge in bacterial genomics, cloud computing, and practical experience in machine learning techniques, which are all required to fill the position.

ANNEX II - EVALUATION: Fellowship Reference IMM/BI/24-2023

Applicant	Interview (40%)			Total ANNEX II	Total ANNEX I + ANNEX II	Justification
	Adequacy of the profile towards the activity to be performed (15%)	Spoken English and Communication Skills (15%)	Interpersonal skills relevant for this position (10%)			
André Filipe Cisneiros Ferreira Salgado	12	15	10	37	97	The candidate performed very well in his interview, confirming his excellent CV and suitability for this position.

Ana Catarina Miller

Ana Santos Almeida

Ana Tereza Freitas