INSTITUTO DE MEDICINA MOLECULAR JOÃO LOBO ANTUNES

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Jury Meeting Minute Reference of Fellowship IMM/BD/11-2024

Instituto de Medicina Molecular João Lobo Antunes (iMM) opend a call for 1 (one) PhD research fellowship under the project "Induction of Long-lasting Premunition against Malaria" with financial support from Merck KGaA.

The ad was published at EURAXESS Portugal Portal on 7 February 2024 and also disseminated in iMM website and social networks.

The call was open from 8 to 29 February 2024, during which period the following applicants applied:

- ✓ Aberham Abere Alemayehu
- ✓ Auriane badiane Nzuemi
- ✓ Awoke Minwuyelet Ayale
- ✓ Brenda Gabriella França
- ✓ Catarina Bento
- ✓ Chioma Ekejiuba
- ✓ Faith Adewoyin
- ✓ Francis Chibuike Okechukwu
- ✓ Joana Silva Lopes
- ✓ Keerthana Gurukkalot
- ✓ Mohd Adil Khan
- ✓ Naveen Kumar Muthukudalingam
- ✓ Pratick Singha
- ✓ Salman Farsi
- ✓ Shah Tariq Aziz
- ✓ Sita Jumatin Arapahni
- ✓ Zeshan

On 15 March 2024, the jury composed by Miguel Prudêncio (IMM), Helena Cabaço (IMM) and Diana Fontinha (IMM) met to analyze the application documents (Motivation Letter in English, Detailed CV, MSc degree certificate and contacts of 2 references).

Work Plan and Goals: The human immune system is equipped to fight a wide range of potential pathogens. Infection leads to disease only when the interaction between the host and the microorganism causes sufficient damage to disrupt homeostasis. In recent years, the effort to prevent or treat infectious diseases has relied primarily on targeting the microorganisms themselves. However, in the case of malaria, a decrease in parasitemia alone is not sufficient to control the disease, and clinical protection from malaria (anti-malaria immunity) has been shown to be a complex process that involves both the host (human) and the Plasmodium parasite, demanding new, effective interventions, which may focus on both these targets, leading to a more comprehensive approach to infection control. Therefore, the main aim of the study is to characterize parasite-host interactions and evaluate their impact on the development of clinical protection against malaria, using a rodent model of liver and blood stage Plasmodium infection. Specific objectives of the study include:

- Evaluation of the hepatic action of selected therapies on the parasite and on the polarization of the host's liver stage immunity;



Immunophenotyping analysis of infected vs control mouse groups and assessment of the development and duration of anti-malarial protection.

The selected candidate will carry out all experimental procedures in the context of the proposed research project and is expected to finish her/his PhD within 4 years from the start of the Fellowship. The candidate will initially be closely accompanied by the Supervisor and other senior members of the host laboratory, and will be expected to progressively gain technical and scientific independence. The candidate will be asked to provide regular accounts of the research progress, and to present the results to various audiences (academia, industry) during the duration of the Fellowship.

Candidate's Profile:

- MSc degree holder in Biology, Microbiology, Immunology or related areas;
- Experience in and accreditation for animal experimentation (FELASA B or equivalent) (Preferential Criteria);
- Vast knowledge of and profound interest in immunology and infectious diseases;
- Experience in immune response assessment methods, including multi-parameter flow cytometry and ELISA;
- Knowledge of immunofluorescence microscopy and RT-qPCR techniques;
- Excellent oral and written communication skills in English;
- High sense of organization, responsibility and commitment to research;
- Excellent interpersonal skills and ability to work both independently and within a team environment;
- Critical thinking skills, initiative and proactivity;
- Availability to start within 2 months of call closure;
- The international experience of the candidates, although not a determining criterion for selection, will be valued.

Necessary Documents for Applications: - Motivation Letter in English; - Detailed CV; - MSc degree 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: Phase 1: CV and Motivation Letter (65%); **Phase 2**: Interview (35%). Only the candidates who obtained a score equal or higher than 45% in Phase 1 will be selected for an Interview.

Curricular Evaluation (40%)

The Curriculum Evaluation took in consideration the following criteria:

- a) MSc degree holder in Biology, Microbiology, Immunology or related areas (10%)
- b) Experience in and accreditation for animal experimentation (FELASA B or equivalent) (5%)
- c) Vast knowledge of and profound interest in immunology (5%)
- d) Vast knowledge of and profound interest in infectious diseases (5%)
- e) Experience in immune response assessment methods, including multi-parameter flow cytometry and ELISA (10%)
- f) Knowledge of immunofluorescence microscopy and RT-qPCR techniques (5%)

Motivation Letter (25%)

The Motivation Letter took in consideration the following criteria:

- a) Motivation and interest for the proposed workplan (20%);
- b) Communication in English language (5%).

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

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INTERVIEW (35%)

The 4 applicants identified below obtained at least 45% in this phase of the evaluation process and were invited for an interview:

- ✓ Aberham Abere Alemayehu
- ✓ Chioma Ekejiuba
- ✓ Mohd Adil Khan
- ✓ Sita Jumatin Arapahni

The interviews were held on 20 March 2024 and the jury evaluated the following:

- a) Alignment with previous experience and ambitions (5%)
- b) Interest in and commitment to the position (5%)
- c) Knowledge about malaria and immunology (5%)
- d) Skills and experience (5%)
- e) Self-evaluation and interests (5%)
- f) Expectations (5%)
- g) Practical issues (5%)

The analysis and discrimination of the admitted candidate's classification in the Second phase and 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, 22 March 2024

Miguel Prudêncio (iMM)

Helena Cabaço (iMM)

Diana Fontinha (iMM)

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ANNEX I - EVALUATION: Fellowship Reference IMM/BD/11-2024

	ANNEX I - EVALUATION: Fellowship Reference IMM/BD/11-2024 Curriculum Vitae (40%) Motivation Letter (25%)										
Applicant	MSc degree holder in Blology, Microbiology, Immunology or related areas (10%) (FE equiv		Vast knowledge of and profound interest in immunology (5%)	Vast knowledge of and profound interest in Infectious diseases (5%)	Experience in immune response assessment methods, including multi-parameter flow cytometry and ELISA (10%)	Knowledge of Immunofluorescence microscopy and RT- qPCR techniques (5%)	Motivation and interest for the proposed workplan (20%)	Communicatio n in English language (5%)	Total	Justification	
Aberham Abere Alemayehu	10	o	2	5	8	2	14	5	46	The candidate has an MSc degree in Medical Parasitology but has no experience in and accreditation for animal experimentation. The candidate has a wast knowledge and interest on infectious diseases, in particular malaria. However, the interest for immunology in the context of this disease is not clear. The candidate has experite in pCRP, ELBA and flow optometry, but not immunofluorescence microscopy. The extent of the expertise in flow cytometry is unclear. The candidates montation letter is well written and clearly states why the candidate would be adequate for this position. However, it does not address the candidate's motivation for the current project.	
Auriane badiane Nzuemi	8	0	o	2	5	2	5	2	24	The candidata has an MSc degree in Animal Biology (specialty on Parastiology and Ecology) but has no experience in and accreditation for animal experimentation. The candidate demonstrates throwledge and interest on malaria, but the same is not clear for immunology. The candidata's has hand-on experience with ELBA and cpC.Th. the candidata's motivation latter clarifies the extent of the knowledge on Plasmodium interest.	
Awoke Minwuyelet Ayale	10	2	?	5	6	6 5 10 3		41	The candidate has an NSC degree in Medical Parasthology. Although mentioned, it is not totally clear to what extent the candidate has hands-on expertise in animal experimentation nor multi-parameter flow cytometry. The candidate has carried our ELSA, NT-20°C and immunofluorescence increaccepy assays. The morbitation letter demonstrates interest in pursuing research in the malaria field of research.		
Brenda Gabriella França	6	o	o	o	o	3	2	5	16	The candidate has an MSc degree in Molecular Genetics and Biomedicine and no experience in and accreditation for animal experimentation. The candidate has no hand-on experience in most of the techniques mentioned in the edital. The CV and moltwistion letter are well written but they do not speak out for an interest in immunology and infections diseases, particularly in malarts.	
Catarina Bento	8	o	3	o	5	2 2 5 25		25	The candidate has an MSc degree in Biochemistry for Health and no hands-on experience and accreditation for animal experimentation. The candidate possesses some knowledge on immunifourscence neitorocopy, ELSA and flow cytometry, acquired during internships and MSc project. The candidate has acquired depretise in immunology, in the context of rheumatoid arthritis, but not in infectious diseases. The motivation letter is well written and shows a drive to pursue research activity but not in the malaria research field.		
Chioma Ekajiuba	8,5	3	4	3	7.5	4.5	14	5		The candidate has an MSc degree in Biochemistry (Pharmacology) and has experience in but no specific accreditation for animal experimentation. The candidate has relevant background in immunology and inflectious diseases. The candidate hursther has hands-on expertise on all the required techniques. The motivation later reveals a good command of the english language, and explains how the candidate has a suitable profile for the current position, but it does not clearly addressed the candidate's interest in working in this particular project.	
Feith Adewoyin	8	0	٥	3	5	0	10	5	31	The candidate has an MSc degree in Molecular Biology and Genomics and no experience in nor accreditation for animal experimentation. The candidate has acquired knowledge on malaria throughout her studies.	
Francis Chibuike Okechukwu	8	o	2	2	o	o	5	5	22	The candidate has an MSc degree in Biochemistry and no experience in nor accreditation for animal experimentation. It is not clear to what extent the candidate is knowledgeable on the topics of immunology and malaria, nor whether the candidate is experienced with the required exchinques. The candidate's motivation letter demonstrates a good command of the english language. Both letter and the CV suggest the candidate is already enrolled in PRD studies.	
Joana Sitva Lopes	10	o	o	2	o	o	7	5	24	The candidate has an MSc degree in Health Biology, with a specialisation in infectious Diseases and Hicrobiota, which provides a relevant background for the current application. However, the candidate has no experience in nor accreditation for animal experimentation, as well as no expertise in the tachniques mentioned in the edital. The motivation letter is well written and suggests an interest in pursuing research in this line of work.	
Keerthana Gurukkalot	10	0	0	3	0	0	8	5	26	The candidate has an NSC degree in Microbiology and has conducted her studies in blood stage <i>Plasmodium</i> infection. The motivation letter is well written and shows a clear drive to pursue research in the malaria field. The candidate's hands-on expertise does not match the profile required for this position.	
Mohad Adil Khan	10	4	5	1	8	3	10	5	46	The candidate has an MSc degree in Microbiology and has experience in but no specific accreditation for animal experimentation. The candidate has a relevant background in immunology and has hand-on experience in flow cytometry, ELSA and RT-QFC. The motivation letter clearly explains how the candidate's experies aligns with the profile of this position, and further shows an interest in pursuing research in this field.	
Naveen Kumar Muthukudalingam	10	o	1	2	5	o	4	5	27	The candidate has an MSc degree in Medical Parasitology, has a background on infectious diseases, and has expertise in ELISA and flow cytometry. The candidate has no experience in nor accreditation for animal experimentation. The motivation letter demonstrates an interest in pursuing a research career in the field of infectious diseases.	
Pratick Singha	8	0	3	0	5	0	5	4	25	The candidate has an MSc degree in biotechnology (specialisation in Marine) and no experience in nor accreditation for animal experimentation. The motivation letter speaks out for an interest in pursuing a research care	
Salman Farei	8	4	1	3	5	5	7	5	38	The candidate has an MSc degree in Zoology (specialisation in molecular parasitology) and has experience in but no accreditation for animal sperimentation. The candidate has experience in most of the techniques mentioned in the edital. Even though the candidate manifests an interest in the current project, the candidate's focus appears to be at the molecular level, which is not totally aligned with the position.	
Shah Tariq Aziz	8	0	0	3	0	0	5	5	21	The candidate has an MSc degree in zoology, which provided some expertise on parasitology. However, the candidate's hands-on expertise is not aligned with the techniques that are required to carry out this position's research.	
Sita Jumatin Arapahni	9	0	3	4	7.5	5	15	4	47.5	The candidate has two MSc degrees, one in the biology of infectious diseases and a second one in molecular and collular biology. It is unclear whether the candidate has any relevant experience in animal experimentation. The candidate has relevant knowledge in "Pasmodium Infection and Immune responses, although the latter is in the context of the mosquito vector. The monthstoin letter populars how the candidate is interested in and may align with the current position.	
Zeshan	8	2	o	3	0	2	5	5	25	The candidate has an MSc degree in industrial biotechnology and limited experience in but no accreditation for animal experimentation. The motivation letter is well written but, overall, the candidate's expertise is not aligned with the profile of this position.	



ANNEX II- EVALUATION: Fellowship Reference IMM/BD/11-2024

	Total ANNEX I	Interview (35%)									
Applicant		Alignment with previous experience and ambitions (5%)		Knowledge about malaria and immunology (5%)	Skills and experience (5%)	Self evaluation and interests (5%)	Expectations (5%)	Practical issues (5%)	Total ANNEX II	Justification	Totalannex I + Annex II
Aberham Abere Alemayehu	46	2.5	4	3	2	2	2	1.5	17	The candidate has limited experience in the topic of the position being offered. He displayed much interest in this opportunity and good knowledge of malaria, but not of immunology. He has reasonably limited experience in some of the techniques required for the position, but not for all of them. His expectations were hard to gauge due to difficulties in communication. He does not hold a Visa or residence permit for EU and would most likely be unable to start within the required period of time.	63
Chioma Ekejiuba	49.5	3-5	5	4	3.5	3-5	3.5	5	28	The candidate has some experience in the topic of the position being offered. She displayed much interest in this opportunity and good knowledge of malaria, but not of immunology. She has experience in some of the techniques required for the position, but not in all of them. She appears quite motivated and resolute. She resides in Portugal and has immediate availability.	77-5
Mohd Adil Khan	46	3	4	3	2.5	3.5	4-5	2.5	23	The candidate has quite reduced experience in the topic of the position being offered. He displayed much enthusiasm for the position. He has good knowledge of malaria, but not of immunology. He has some experience in some of the techniques required for the position, but not in flow cytometry. His expectations aligned with the lab's. He does not hold a Visa or residence permit for EU and would most likely be unable to start within the required period of time.	69
Sita Jumatin Arapahni	47-5	4.5	4	4	3.5	4	4.5	4.5	29	The candidate has experience in the topic of the position being offered, having previously worked in a malaria research lab. She displayed interest in the position and good knowledge of malaria. She does not have experience in immunology. She has some experience in several of the techniques required for the position, including mosquito dissections and drug assessment in the context of the liver stage of Plasmodium infection, but not in all of them. Her expectations were clearly outlined. She resides in France and expressed her availability to start within 1-2 months.	76.5



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/1-2024, aberto ao abrigo do projeto "*Induction of Long-lasting Premunition against Malaria*" 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.

Lisbon, 22 March 2024

Miguel Frudêncio (iMM)

Helena Cabaço (IMM)

Diana Fontinha (IMM)