

INSTITUTO DE MEDICINA MOLECULAR JOÃO LOBO ANTUNES

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Rita Cascão

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Jury Meeting Minute

Reference of Fellowship IMM/BII/21-2021

Instituto de Medicina Molecular João Lobo Antunes (iMM) opened a call for one research fellowship with the funding support from “La Caixa” Banking Foundation under the project “**IL7R_LungCan**”.

The ad was published at EURAXESS Portugal Portal on 27th of September 2021 and also disseminated in iMM website. The call was opened from 28th of September 2021 until 12th of October 2021 and during which the following applicant applied:

- | | |
|-------------------|---------------------|
| ✓ Ana Costa | ✓ Patrícia Ferreira |
| ✓ Beatriz Neves | ✓ Rita Marques |
| ✓ Dalila Mexieiro | ✓ Rubén Porras |
| ✓ Hanane El Hafa | ✓ Shakiba Gholami |
| ✓ Joana Alves | ✓ Tatiana Araújo |
- ✓ The applicants **Ana Costa**, **Hanane El Hafa** and **Patrícia Ferreira** were excluded since they did not send all required documents.

On the 03rd of November 2021 the jury composed by João Taborda Barata, Rita Cascão e Rita Fragoso (all PhD's), met to analyze the application documents (Motivation Letter, Detailed CV, BSc degree Certificate, Two reference letters and/or reference contacts and Candidate's declaration of honor indicating previous fellowships, if any, their typology and duration) in accordance to the profile and work plan indicated in the job advert.

Work Plan and Goals: Lung cancer is the leading cause of cancer-related deaths worldwide. Non-small-cell lung cancer (NSCLC) is the major lung cancer subtype, accounting for 85% of all cases. Immunotherapy based on PD-1 axis blockade transformed the therapeutic landscape of advanced NSCLC in recent years. However, resistance can emerge and constitutes a significant challenge. Another clinical hurdle stems from >50% primary tumors metastasizing. Interleukin (IL)-7 and its receptor (IL-7R) are critical for T-cell development, survival of naïve T-cells, and generation and maintenance of memory T-cells, being essential for efficient immune anti-tumor responses. However, they can be subverted to promote cancer progression: IL-7 accelerates leukemia development and IL7R is a bona fide lymphoid oncogene. There is also evidence that IL-7R can be aberrantly expressed in solid tumors and contribute to tumor expansion and resistance to therapy. In this project, we propose to: 1) Dissect the role of IL-7/IL-7R in NSCLC development and metastasis; 2) Confirm whether IL-7R is a biomarker of resistance to anti-PD-1 axis therapy and explore the mechanisms by which IL-7R may mediate resistance to immune checkpoint inhibition; 3) Develop novel antibody-based approaches to target IL-7R expression specifically in tumor cells, decrease tumor burden and prevent resistance to immunotherapy. The successful candidate will be a highly organized, sociable, pro-active person who will be involved in the management of this multi-institutional project (which involves also CNIO and Hospital 12 de Octubre in Madrid, Spain), maintaining proper lab organization; inventory and reagent database management; ordering and interaction with suppliers; secretariat support to the PI; preparation of specific broad-use lab solutions; mouse genotyping (DNA extraction and PCR) and some experimental mouse work *in vivo*.

Candidate's Profile:

- Bachelor in the field of Health or Life Sciences;
- Experience with *in vivo* mouse work will be highly valued

- High organization skills and work capacity are essential.

Necessary Documents for Applications: Motivation Letter with a short description of your previous research experience with relevance to the project, your main scientific achievements, and why you believe you have the profile and qualities to become our lab manager; - Detailed CV; - BSc certificate; - Two reference letters and/or reference contacts; - Candidate's declaration of honor indicating previous fellowships, if any, their 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: Curricular evaluation (60%), Motivation Letter (40%).

Curricular Evaluation (60%)

The analysis of the Curriculum Vitae took in consideration:

- Bachelor in the field of Health or Life Sciences (20%);
- Experience with *in vivo* mouse work (40%).

Motivation Letter (40%)

The analysis of the Motivation Letter took in consideration:

- Expertise and interest for the field and activities to be performed (5%);
- Written communication (5%);
- Interest in working as lab manager and PI assistant (30%).

The analysis and discrimination of the admitted candidate's classification is presented in Annex I.

- ✓ Unanimously, the jury decided that the candidate Tatiana Araújo fulfilled the necessary requirements for this position.

Lisbon, 09th of November 2021



João Taborda Barata (FMUL/ IMM)



Rita Cascão (IMM)



Rita Fragoso (IMM)

Fellowship Reference IMM/BIU/21-2021

| Applicant | Curricular Evaluation (60%) | | Motivation Letter (40%) | | | Total | Justification (must be clear, transparent and enough) |
|-----------------|--|--|--|--------------------------------------|---|-------|--|
| | Bachelor in the field of Health or Life Sciences (20%) | Experience with in vivo mouse work (40%) | Expertise and interest for the field and activities to be performed (5%) | Command of the written language (5%) | Interest in working as lab manager and PI assistant (30%) | | |
| Tatiana Araújo | 20 | 30 | 5 | 5 | 30 | 90 | Degree in Biomedical Sciences (Universidade de Beira Interior), final mark 15. The candidate has expertise in working with in vivo mouse models, namely in the cancer field, and in performing related experiments such as genotyping. However, it is not clear the other techniques in which the candidate has expertise regarding in vivo models. Also, no personal license for carrying out experiments with laboratory animals was mentioned. The motivation letter is well written and reveals expertise in the cancer field, and most importantly in the area of IL7/lung cancer. Additionally, it reveals interest to carry out lab management and lab organization tasks. |
| Rita Marques | 15 | 0 | 3 | 4 | 30 | 52 | Degree in Biologia Evolutiva e do Desenvolvimento (Faculdade de Ciências da Universidade de Lisboa), final mark 15. No expertise in working with in vivo mouse models of cancer or personal license for carrying out experiments with laboratory animals. The motivation letter is well written but the English version would have been appreciated. Also, the motivation letter is very general and shows lack of interest/expertise specifically for the IL7/lung cancer field. Additionally, it reveals interest for the development of lab management and lab organization tasks, which is a requirement for this position. |
| Dallia Mexieiro | 15 | 20 | 1 | 3 | 10 | 49 | Degree in Biotechnology (Universidade de Évora), final mark 14. The candidate seems to have worked with samples of mouse models of cancer but her expertise in carrying out in vivo experiments is not clearly demonstrated. Also, there is no mention of a personal license for carrying out experiments with laboratory animals. The motivation letter is not so well written and the English version would have been appreciated. The motivation letter reveals some previous expertise in the cancer field but completely fails in showing the candidate interest for this work proposal dedicated to L7/lung cancer. Also, this position needs a person with interest in working as a lab manager and as a PI's assistant, and the candidate reveals a profile focused in the development of research scientist career. We believe that it is not possible to be fully dedicated to our work plan and carrying out a master in the faculty of medicine concomitantly. |
| Shakiba Gholami | 20 | 10 | 4 | 5 | 10 | 49 | Degree in Cellular and Molecular Biology (Faculty of Basic Sciences, Shiraz University). The candidate has limited expertise in working with experimental animals, specially mouse models of cancer (experience only in rats for 2 weeks). No mention to personal license for carrying out experiments with laboratory animals. The candidate has one publication as co-author but not in the cancer field. She has developed some work in the cancer field but shows no grasp of this specific project dedicated to IL7/lung cancer. The motivation letter is well written, however it reveals that the candidate is focused mainly in pursuing a research career. This position needs a person with interest also in working as a lab manager and as a PI's assistant, and the candidate does not demonstrates interest for this part of the position requirement. |
| Beatriz Neves | 10 | 20 | 3 | 5 | 10 | 48 | Degree in Engineering Sciences - Biological Engineering (Instituto Superior Técnico Lisboa), final mark 12. The candidate has limited experience using mouse models in vivo (only genotyping and in vivo transplantation), with no experience in cancer mouse models experiments in vivo or personal license for carrying out experiments with laboratory animals. The motivation letter is well written but is a very general motivation letter and shows lack of interest/expertise specifically for the IL7/lung cancer field. This position needs a person with interest also in working as a lab manager and as a PI's assistant, and the candidate reveals a profile focused in the development of research scientist career. |
| Joana Alves | 15 | 0 | 3 | 5 | 10 | 33 | Degree in Marine Biology and Biotechnology (Instituto Politécnico Leiria), final mark 16. No expertise in working with in vivo mouse models of cancer or personal license for carrying out experiments with laboratory animals. Posters and publications in the field of marine biology, which is not related with the area of research of this position (oncology/lung cancer). The motivation letter is well written but shows lack of interest specifically for the IL7/lung cancer field. This position needs a person with interest also in working as a lab manager and as a PI's assistant, and this is not demonstrated in the motivation letter. |
| Rubén Porras | 15 | 0 | 3 | 5 | 10 | 33 | Degree in Biology (Universidad Rey Juan Carlos). The candidate seems to have no expertise in working with in vivo mouse models of cancer or personal license for carrying out experiments with laboratory animals. The motivation letter is well written but is very general and shows lack of interest/expertise specifically for the IL7/lung cancer field. Also, this position needs a person with interest in working as a lab manager and as a PI's assistant, and the candidate does not reveal interest for this part of the position requirement. |

 Rita Cascaço Rita Fragoso