

**CALL FOR A POSTDOCTORAL RESEARCH FELLOWSHIP**  
**Reference IMM/BIPD/6-2022**

Instituto de Medicina Molecular João Lobo Antunes (IMM) opens a call for one postdoctoral research fellowship with the funding support from "La Caixa" Banking Foundation under the project "*IL7R\_LungCan*".

**Scientific Area(a)** Health Sciences - Oncobiology

**Fellowship recipients / Admission requirements:** Any National, foreign and stateless candidate(s) can apply. Applicants must hold the following requirements:

- Doctoral Degree in Biomedical sciences or related fields (PhD obtained less than 3 years);
- Know-how in cancer research and/or immunology;
- Experience working with laboratory animals is highly valued (preferably with personal license for handling animals);
- Experience in molecular biology;
- Experience in multicolor flow cytometry analysis;
- Experience with cell culture of cell lines and primary cells (knowledge of proliferation, viability, migration and invasion assays is an important plus);
- Basic concepts of microscopy;
- High sense of responsibility, organization and method;
- Pro-active personality;
- Ability to work independently but also with team spirit;
- Excellent knowledge of English, spoken and written.

**Work Plan and Objectives:** 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, in the current project, funded by la Caixa Foundation and based on our preliminary data, we wish to demonstrate that IL7R can have an oncogenic role in lung cancer. We aim to:

- Demonstrate that IL-7R signaling in NSCLC cell lines and PDX samples leads to cancer cell proliferation, survival, motility, migration or invasion in vitro.
- Using xenograft and knock-in models of IL7R overexpression, proof that IL-7R signaling promotes lung cancer development, expansion and/or metastasis in vivo.
- Characterize the tumor cell-intrinsic and microenvironmental mechanisms involved in IL-7R-dependent cancer development (with a particular focus on the immune compartment).

These studies will be done in close collaboration with the groups of Jon Zugazagoitia and Luis Álvarez-Vallina, in CNIO and Hospital 12 de Octubre, Madrid, Spain.

**Law and 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 April 2022, for a period of 12 months on an exclusive basis, eventually renewable until the maximum stipulated in applicable regulations, not exceeding the eligibility period of the project. The start date is flexible to some extent, but preferably as close as possible to April 2022.

**Work place and Scientific orientation:** The research activities will be developed at Signaling in Cancer Laboratory Coordinated by João Barata and under his supervision.

**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.

**Research Fellows Support Centre:** The monitoring centre works on Tuesdays and Thursdays from 9:00AM to 6:30PM at Human Resources Office.

**Fellowship financial conditions:** The fellow will benefit from a monthly stipend in the amount of **1686€** in accordance with the applicable regulation. 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:** Please submit: 1) a motivation Letter with a short description of your previous research experience with relevance to the project, your main scientific achievements, and why you believe we should hire you; 2) your CV, including list of publications; 3) two reference letters and/or reference contacts; 4) PhD certificate; 5) Candidate's declaration of honor indicating previous fellowships, if any, and its duration as a Postdoctoral fellow. ***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:** Applications will be evaluated by João Taborda Barata (FMUL/ IMM), Rita Cascão (IMM) and Rita Fragoso (IMM).

**Selection methods:** The admitted applications will be evaluated taking into account the quality, timeliness and relevance of the scientific path (scientific production and research experience) and curriculum of each candidate (a) and their adequacy to the proposed work plan.

**First phase:** Curriculum Analysis (60%) and Motivation Letter (10%). The Curriculum will be analyzed qualitatively, and in what concerns to its content and relevance for the tasks to be performed, namely: executed and/or published scientific work, with special emphasis on areas related to the work plan (20%); research

experience and relevant knowledge in the area of the proposed work plan as described in the candidate profile (40%). The letter of motivation will be evaluated in what concerns the motivation and adequacy for the activities to be performed (5%), and command of the English language (5%).

**Second phase:** The jury will select for the interview (evaluation: 30%) 5 candidates who obtained in the first phase the highest ranking, with a minimum of 50%. If less than 5 candidates obtained a minimum rating of 50% those with at least 50% will all be interviewed. No interviews will be conducted if none of the candidates achieves a score of at least 50% in the first phase.

**Deadlines and application process:** The call will be open from **22<sup>nd</sup> of February until 10<sup>th</sup> of March 2022**. 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) and document proving the required academic degree.

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

Lisbon, 21<sup>st</sup> of February 2022

The Executive Director of IMM  
Professor Maria Manuel Dias da Mota