

INSTITUTO DE MEDICINA MOLECULAR JOÃO LOBO ANTUNES

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CALL FOR A POSTDOCTORAL RESEARCH FELLOWSHIP

Reference of Fellowship IMM/BPD/79-2019

The Instituto de Medicina Molecular João Lobo Antunes (iMM) opens a call for a Postdoctoral Research Fellowship, with the funding support from “la Caixa” Banking Foundation, under the project “*Next-generation CAR-DOT cells for allogeneic adoptive cancer immunotherapy*” (HR18-00069 - ALLO_CAR_DOT).

Work Plan and Goals

1. Dissect the molecular mechanisms of AML cell recognition by DOT cells (see Almeida et al. Clin Cancer Res 2016; Di Lorenzo et al. Cancer Immunol Res 2019):

1a. Screening, in panel of AML cell lines and primary samples, the expression of all known ligands for NK cell receptors using quantitative real-time PCR (RT-qPCR), and validation at the protein level by Western blotting or FACS.

1b. Test functional relevance of candidate ligands via CRISPR/ Cas9 silencing strategies. Mutated AML cell lines will be compared to control lines for their capacity to elicit DOT cell cytotoxicity.

2. Establish the pre-clinical proof-of-concept for DOT cells (native or CAR- transduced) in AML:

2a. In vitro testing:

- Cytotoxicity against AML cell lines and primary AML samples, and assessment of perforin/ granzyme expression and degranulation (CD107a);

- Secretion of IL-2, TNF and IFN-gamma upon co-incubation with AML cell lines and primary AML samples;

2b. In vivo testing in xenograft models of AML: (i) biodistribution and persistence; (ii) efficacy; (iii) side effects.

Scientific Area: Immunology

Candidate's Profile

- PhD in Immunology

- More than 5 years post-doctoral experience

- Specific research experience in T cell biology

- At least 2 corresponding authorships in peer-reviewed original articles

- At least 10 publications in journals with IF > 5

Duration of Fellowship: 12 (twelve) months on an exclusive basis, eventually renewable, **not exceeding the eligible period of the project.**

Law and Regulation: Research Fellowship Statute (Law nr 40/2004, from August 18th, republished in attach to Decree-Law nr 202/2012, from August 27th), iMM Regulation Fellowship, Career By-Law and Assessment Regulations.

The 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.

Predicted Start Date: February 2020

WorkPlace and Scientific Orientation: The work will be developed at **T cell Differentiation & Tumor Targeting Laboratory** under the supervision of **Bruno Silva-Santos**.

Fellow Monitoring Centre: The monitoring centre works on Tuesday (09:00AM to 01:00PM / 02:00PM to 06:00PM) and Thursday (02:00PM to 06:00PM), at Human Resources of iMM.

Monthly Remuneration: In accordance with the applicable regulation. The amount will be paid through bank transfer.

Necessary Documents for Applications: - Motivation Letter; - CV with publication list and detailed experience in the relevant areas (see candidate's profile); - PhD certificate. ***The non-compliance with these requirements determines the immediate rejection of the application.***

Evaluation: Applications will be evaluated by a jury composed by Professors Bruno Silva-Santos, Luís Graça and Marc Veldhoen (all PhD's).

Selection Method: CV (80%): Publications (50%) and Relevant experience (30%). Motivation letter (20%).

Deadlines and Submission of Applications: The call will be open for 10 working days, starting on **18th November and ending on 29th November 2019.**

Applications should be sent to iMM Human Resources through the email imm-hr@medicina.ulisboa.pt, indicating the reference of fellowship (mandatory). ***The non-compliance with these requirements determines the immediate rejection of the application.***

Communication of Results: The results will be published at <https://imm.medicina.ulisboa.pt/jobs/#results> and posted at the entrance lobby of the Institute.

Lisbon, 31st October 2019

The Executive Director of iMM

Professor Maria Manuel Dias da Mota, PhD