

CALL FOR A RESEARCH FELLOWSHIP
Fellowship Reference GIMM/BI/5-2024

Gulbenkian Institute for Molecular Medicine (GIMM) opens a call for one research fellowship under the project “**Targeted chronotherapy in T-cell acute lymphoblastic leukemia**”, with the funding support from Fundação para a Ciência e a Tecnologia, IP.P. / MCTES through national funds (PIDDAC).

Scientific Area(s): Oncobiology, Cancer.

Fellowship recipients / Admission requirements: Any National, foreign and stateless candidate(s) that fulfill the necessary conditions to be enrolled in a non-academic degree course (in area related to the work plan) can apply. Are considered “Non-academic degree courses” the ones referred in [paragraph e\) of number 3 of article 4 of Decree-Law nr 74/2006, from 24th March](#), in its current version, as long as they are developed in association and cooperation between a higher education institution and at least one R&D Unit in accordance with the provisions of paragraph e) of Article 3 of FCT Fellowship Regulation.

Applicants must hold the following requirements:

- MSc degree holder in biomedical research, with focus in Oncobiology;
- Previous expertise in signaling transduction pathways (highly valued);
- Previous experience in cell culture of primary samples and adherent and suspension cell lines (mandatory);
- Previous experience in molecular biology techniques (DNA and RNA extraction, qPCR, RT-PCR, Western blot) (mandatory);
- Experience in the production and handling of viral supernatants (highly valued);
- Previous experience in Flow Cytometry (mandatory);
- Previous experience in colony management (highly valued);
- Previous experience with functional *in vivo* assays (mandatory);
- High sense of responsibility, organization and method;
- Pro-active personality;
- Ability to work independently but also with team spirit;
- Excellent knowledge of English, both spoken and written.

Work Plan and Objectives:

We previously demonstrated that constitutive activation of PI3K-Akt signaling occurs in a majority of T-ALL patients and results frequently from CK2-mediated posttranslational inactivation of PTEN, the major negative regulator of the pathway. CK2, a highly pleiotropic kinase, was shown also to fine-tune the circadian molecular clock (CMC) by phosphorylating BMAL1 and PER2. The existence of this crosstalk led us to hypothesize that PI3K-Akt pathway hyperactivation may fluctuate in a circadian fashion in T-ALL cells.

Our preliminary data support this notion: PI3K-Akt signaling oscillates in a circadian manner in different T-ALL cell lines (MOLT4, HPB-ALL, etc). Importantly, we found significant differences in sensitivity to a PI3K-specific inhibitor (BKM-120/buparlisib) between three different schedules of *in vitro* circadian drug administration in MOLT4 cells.

Following on our longstanding interest in dissecting the impact of signaling pathways on leukemia development, we now propose to test the idea that T-ALL signaling pathways can be targeted in a chronotherapeutic manner, thereby improving efficacy while decreasing the risk of side effects.

The successful candidate will be a highly organized, motivated and pro-active person that will participate in tasks such as the following:

- Molecular biology techniques (DNA and RNA extraction, PCRs, RT-PCR, cloning, Western blot);
- Flow Cytometry analysis;
- Cell culture of cancer cell lines and primary cancer cells;
- Production and handling of viral supernatants;
- *In vivo* work with animal models;
- Mouse genotyping (DNA extraction and PCR) and colony management;
- Preparation of broad-use lab solutions.

Legislation and Applicable Regulation: Estatuto do Bolseiro de Investigação approved by Law nr 40/2004, from 18th August in its current form (altered by Decree Law nr 123/2019, 28th August) and current Regulation of Fellowships of Fundação para a Ciência e a Tecnologia [Regulamento Bolsas FCT 2019.pdf](#) (approved by Regulation nr 950/2019, from 16th December).

Predicted start date, duration and renewal conditions: The fellowship contract is predicted to start in February 2025, for a period of 11 months on an exclusive basis, eventually renewable until the maximum stipulated in applicable regulations, not exceeding the eligibility period of the project.

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

Non-discrimination and equal access policy: GIMM 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.

International environment and experience: Diversity is a fundamental aspect of the essence of GIMM, where researchers and non-researchers of different nationalities, backgrounds and areas of study work together, promoting the exchange of experiences and interactions, contributing to the personal and professional development of each person and to the existence of an international, inclusive and stimulating environment.

Research Fellows Support Centre: The Research Fellows Support Centre works everyday from 09:00AM to 11:00AM at People & Culture Unit Office.

Fellowship financial conditions: The fellow will benefit from a monthly stipend in the amount of 1259,64€ in accordance with the defined in FCT table [Tabela de Valores FCT_atualizacao 2024.pdf](#). 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: - Motivation Letter; - Detailed CV; - MSc certificate; - Candidate's declaration of honor indicating previous fellowships, if any, its 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.

Jury evaluation and selection: Applications will be evaluated by Doctors João Taborda Barata (FMUL/GIMM), Marta Fernandes (GIMM) and Rita Fragoso (GIMM).

Selection methods: Curriculum Analysis (50%) and Motivation Letter (50%). The Curriculum will be analyzed qualitatively, and in what concerns to its content and relevance for the tasks to be performed, namely: research experience and relevant knowledge in the area of the proposed work plan as described in the candidate profile (50%). The letter of motivation will be evaluated in what concerns the motivation and adequacy for the activities to be performed (35%), and command of the English language (15%).

Deadlines and application process: The call will be open **from January 14th 2025 until January 27th 2025.**

Applications should be submitted to People & Culture Unit, through the email positions@gimm.pt. ***The non-compliance with these requirements determines the immediate rejection of the application.***

Notification of results: Within 90 days after the termination of the applications submission deadline, both admitted and excluded candidates list and final classification list shall be communicated to all admitted candidates through 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 GIMM 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), document proving the required academic degree and the document proving the enrollment in a non-academic degree course.

Applicants with academic degrees obtained abroad will be required to present a certificate of recognition in accordance with the applicable regulation. This document is mandatory only in the contracting phase.

For each Fellowship period an Activity Report must be prepared by the fellow as well as the Report by the supervisor.

Lisbon, January 13th 2025

The Executive Comitee of GIMM
Professor Maria Manuel Dias da Mota

