



Instituto  
de Medicina  
Molecular

João  
Lobo  
Antunes



## Unfixed-Term Employment Contract

Reference IMM/CT/30-2019

We are seeking for one outstanding postdoctoral researcher to join AXIAL.EC funded by the European Research Council (ERC) in the group of Claudio Franco at Instituto de Medicina Molecular João Lobo Antunes (iMM João Lobo Antunes) in Lisbon, Portugal.

**Work Place:** The work will be developed at [CFRANCO Lab](#) of iMM João Lobo Antunes under the supervision of Claudio Franco, PhD.

**Project:** *AXIAL.EC: Principles of Axial Polarity-Driven Vascular Patterning*. (ERC Starting Grant, GA 679368).

**Scientific Area:** Cell and Molecular Biology, Vascular Biology, Cancer Biology, Vascular Disease, Intracellular Trafficking

**Project Summary:** The formation of a functional patterned vascular network is essential for development, tissue growth and organ physiology. Several human vascular disorders arise from the mis-patterning of blood vessels, such as arteriovenous malformations, aneurysms and diabetic retinopathy. Although blood flow is recognised as a stimulus for vascular patterning, very little is known about the molecular mechanisms that regulate endothelial cell behaviour in response to flow and promote vascular patterning. Recently, we uncovered that endothelial cell front-rear polarisation and migration against blood flow direction is essential for vascular patterning. Yet, very little is known about the molecular mechanisms that regulate endothelial cell behaviour and promote vascular patterning. One interesting hypothesis is that Golgi-to-nucleus polarity against the flow direction leads to asymmetric protein secretion, which could contribute to flow-dependent vessel homeostasis stabilization. Given the functional aspects of cell migration, polarity and vesicular trafficking of endothelial cells in vessel homeostasis and function, we initiated a project to study the role of Rab GTPases in vascular development and function using mouse and zebrafish as model organisms.

**Activities:** The candidate will be involved in the analysis of several genetic mouse models to understand how cell polarity and cell migration is regulated by blood flow. **We have a specific focus on vesicle trafficking, endocytosis, recycling and cell signaling.**

### Experience, Knowledge, Skills

- PhD in the field of Cell Biology, Molecular Biology, Pharmacology or Cancer Biology (not restricted to).
- Enthusiasm for science, scientific rigor, critical thinking, proactivity and resilience.
- Proven experience in Molecular Biology techniques and Microscopy
- Prior experience in at least one of these research fields: - vascular biology; - cancer biology; - intracellular trafficking.
- Prior experience with at least one of the following techniques: - mammalian cell culture; - molecular biology; - work with mouse models (FELASA accreditation).
- Good teamwork and interpersonal skills.
- Excellent communication and writing skills.
- Excellent command of the English language.

**Predicted Start Date and workplace:** The contract is expected to start in October 2019 and will remain only for the necessary execution period of the work plan.

**Working Conditions:** Gross monthly Remuneration is **2.128,34€**, subject to the mandatory taxes according to the Portuguese Labor. The selected candidate will also receive a meal allowance in the amount of 4,77€/ per working day and other allowances under the contract (Holiday and Christmas allowances) also subject to the legal mandatory taxes.

**How to apply and Selection Process:** The call is **NOW** open and will end on **20<sup>th</sup> September 2019**. **Applications for the above opening should include:** - Motivation letter; - Detailed CV; - Letter and Contact information of two references; - PhD certificate. *The non-compliance with these requirements determines the immediate rejection of the application.*

Applications should be sent to [imm-hr@medicina.ulisboa.pt](mailto:imm-hr@medicina.ulisboa.pt) with the Reference IMM/CT/30-2019. If no suitable candidate is found, the deadline will be extended.

#### Selection process

- **Pre-selection:** Will be based on CV, motivation letter and research experience.
- **Interviews:** Short-listed candidates will be interviewed.
- **Job offer:** Will be sent to the successful candidate after the interview.

**Communication of Results:** The results will be published at <https://imm.medicina.ulisboa.pt/en/job-opportunities/results/> and posted at the entrance lobby of the Institute.

Lisbon, 9<sup>th</sup> August 2019