**Post-Doctoral Research Grant (BIPD)**

**ref.ª SAI/2022/03** **- 1 vacancy**

There is an open call for applications for a Post-Doctoral Research Grant (BIPD), under reference SAI/2022/03, in the scope of the project EXPL/CCI-BIO/1650/2021-CARDIOMiogênese In Silico: Um quadro computacional para o estudo da diferenciação de células estaminais em cardiomiócitos, at the institution CEDOC - Chronic Diseases Research Centre (*Centro de Estudos de Doenças Crónicas*) from Faculdade de Ciências Médicas|NOVA Medical School (FCM|NMS), Universidade NOVA de Lisboa (UNL), supported by income from the above mentioned project financed by the Fundação para a Ciência e Tecnologia, I.P., under the following conditions:

**Field of study:** Computational biology/Bioinformatics

**Admission requirements** **(eligibility criteria):**

PhD Degree in the area of computational systems biology, bioinformatics, artificial intelligence or related fields.

**Work plan:**

The aim of the FCT project is to computationally infer gene regulatory networks underlying cardiomyogenesis and to examine the functional importance of the network components in the context of human health. The project is based on the combined analysis of a variety of large omics data sets and the application of state-of-the-art computational methods. It will provide the successful candidate a unique opportunity to work with a wide variety of data sets from cutting edge technologies and to develop new computational methods for the study of human diseases.

The post-doctoral fellow will hold a key role in the project and will carry out following tasks:

1) Integration and analysis of single cell and bulk RNA-, ChIP- and ATAC-seq data as with existing knowledge;

2) Application of statistical, machine learning and artificial intelligence methods to derive gene regulatory networks;

3) Interrogation of the functional and medical relevance of the constructed gene networks using large population-based genomics data sets (GWAS), drug and disease data as well as computational simulation.

**Legislation and applicable regulations**:

The fellowship is legally framed by the Research Fellowship Holder Statute (Law 40/2004, of August 18) and the FCT Regulation for Research Studentships and Fellowships in force.

**Place of work**:

The work will be carried out at *Stem Cells and Development* Group of CEDOC – Chronic Diseases Research Centre (*Centro de Estudos de Doenças Crónicas*) at Faculdade de Ciências Médicas|NOVA Medical School (FCM|NMS), Universidade NOVA de Lisboa (UNL), under the scientific supervision of Professor Matthias Futschik.

**Fellowship duration and predicted start date:**

The fellowship will last for 6 months and is expected to start on April 1, 2022.

The fellowship contract is eventually renewed for an equal period until the total of 18 months for the duration of the fellowship or if possible until the end of the project.

**Monthly Scholarship Amount:**

The monthly amount of the fellowship corresponds to € 1686.00 (one thousand six hundred and eighty-six euros), paid monthly by bank transfer, according to the table of stipend values of FCT, I.P., in the country.

**Selection Methods:**

The motivation letter and CV of the candidates will be evaluated according to the weighting of the factors indicated below.

Preferential Factors and assigned values in %:

- Previous scientific productivity - 40%;

- Experience in relevant omics data analysis - 30%;

- Programming skills in R or Python - 20%;

- Experience in AI/ML - 10%;

**Selection Jury:**

- Matthias Futschik, FCM|NMS – President of the Jury;

- José Belo, FCM|NMS – 1st Effective Jury Member;

- Maria Paula Macedo, FCM|NMS 2nd Effective Jury Member;

- Gabriela Silva, FCM|NMS – 1st Alternate Jury Member;

- José Inácio, FCM|NMS – 2nd Alternate Jury Member.

**Form of publicizing/notifying the results:**

The results of the evaluation will be sent by email to the candidates who submitted the application within the deadline. The candidates will also be notified by email that if they wish to comment at the prior hearing, they should present their comments by email within 10 working days.

**Application deadline and form of presentation of applications:**

The call is open from February 22 to March 8 (till 12:00 AM), 2022, and is published on <https://euraxess.ec.europa.eu/> and in <https://www.nms.unl.pt/en-us/NMS/Join-NMS/Recruiting> (Portuguese and English versions on this website).

Applications have to be submitted by email, to applications@nms.unl.pt, mentioning the reference **SAI/2022/03** in the Subject of the message.

Applications are formalized by sending a the following documents: *Curriculum vitae*, Certificate of Qualifications, Letter of Motivation highlighting the candidate’s relevant expertise for the tasks outlined in the work plan, and other supporting documents deemed relevant.

FCM|NMS reserves the right not to award the proposed grant if the candidates do not meet the requirements indicated in this announcement.

Lisboa, February 21, 2022