

Title: Postdoctoral researcher in malaria epigenetics

Location: CEK building

Description:

The Barcelona Institute for Global Health (ISGlobal) is a cutting-edge institute addressing global public health challenges through research, translation into policy and education. ISGlobal has a broad portfolio in communicable and non-communicable diseases including environmental and climate determinants, and applies a multidisciplinary scientific approach ranging from the molecular to the population level. Research is organized in three main areas, Malaria and other Infectious Diseases, Child and Maternal Health, and Urban Health, Climate & Non-Communicable Diseases. ISGlobal is accredited with the Severo Ochoa distinction, a seal of excellence of the Spanish Science Ministry.

What We Are Looking for:

ISGlobal is seeking a postdoctoral scientist who is interested on working in the project **MalTransc**. The overall goal of the project is to gain a better understanding of the regulation of gene expression in the malaria parasite *Plasmodium falciparum*.

The team:

The ISGlobal Malaria Epigenetics lab directed by ICREA Research Professor Alfred Cortés investigates the regulation of gene expression in the malaria parasite *Plasmodium falciparum*. We use a combination of approaches that include phenotypic characterization of parasites, molecular biology, multi-omics approaches, and genome editing with CRISPR-Cas9 technology.

About the project:

Plasmodium falciparum is responsible for the most severe forms of human malaria. Transcriptional regulation plays a key role in malaria parasite biology, as it controls fundamental processes such as life cycle progression, developmental “decisions”, antigenic variation and adaptation to the conditions of the environment. Some of these processes are regulated at the epigenetic level, with a key role for euchromatin-heterochromatin transitions.

We are recruiting a postdoctoral scientist to work in a project with title “Transcriptional regulation of adaptation and developmental decisions in malaria parasites: from epigenetic variation to directed transcriptional responses”, funded by the Spanish

Ministry of Science and Innovation (RETOS call). In this project we will investigate the epigenetic mechanisms underlying heterochromatin formation and their role in regulating clonal variation and adaptive processes in malaria, and also the transcriptional response of the parasite to heat shock. The project will involve the use of multiple techniques including genome editing with CRISPR-Cas9 technology, transcriptomics (RNA-seq/microarrays), epigenomics (ChIP-seq) and basic molecular and cellular parasitology.

Field research:

- Biological sciences

Training and experience /Qualifications:

- A PhD in a discipline related with molecular and cellular biology

Specific Requirements:

- High level of enthusiasm and motivation; passion for science!
- Previous expertise in malaria research and/or in epigenetics/chromatin biology is desirable but not essential
- Bioinformatics skills are desirable but not essential

Key Responsibilities:

The main tasks will be to design and perform the experiments for this project, to analyse and interpret the data, and to write the resulting manuscripts, in collaboration with other members of the team. The successful candidate is expected to contribute to the supervision of junior members of the team and to participate in the scientific discussion of other projects. Good integration in the team environment is essential.

Specific Duties:

- Experiments with *P. falciparum* cultures
- Molecular and cellular biology experiments
- Data analysis and preparation of manuscripts
- Present results in scientific conferences
- Contribute to scientific discussion and training of new members of the team

Skills

- Capacity to work both independently and as part of a team
- Excellent written and oral communication skills in English
- Excellent organization and coordination skills
- Demonstrated track record of achievements

Language level:

- Excellent written and oral communication skills in English are essential

Conditions:

Duration: 30 months

Starting date: **January 2021 (flexible)**

Contract: Full time

Salary Range: According to ISGlobal salary scales, will depend on the level of experience and qualifications

During the crisis caused by COVID19, standard working conditions will be adapted to sanitary requirements.

How to apply:

Applicants must fill in the request form and include the following code reference position: **Postdoc_MalariaEpigenetics_Oct20**, attach the CV and a Cover Letter. Each attached document must be named with the candidate name and surname.

The receipt of applications will be open until November 30th 2020 or until the position is covered.

Applications will be accepted until 17.00 CET of the closing date.

Only applications received through the form will be valued.

Only shortlisted candidates will be contacted.

In ISGlobal we are committed to maintaining and developing a work environment in which the values and principles of our organization are respected and equal

opportunities between women and men be promoted in each of the areas in which we operate, not tolerating discrimination based on criteria such as age, sex, marital status, race, ethnicity, disabilities, political leanings, religion or sexual orientation.