

UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO LABORATORIO INTERNACIONAL DE INVESTIGACIÓN SOBRE EL GENOMA HUMANO



The Cancer Genetics and Bioinformatics Group from the International Laboratory for Human Genome Research (LIIGH), part of the National Autonomous University of Mexico (UNAM) is seeking a postdoctoral fellow to join our multidisciplinary team in September 2021. Our lab is located in Juriquilla, Queretaro, Mexico, and provides state-of-the-art facilities, as well as a collaborative and friendly research atmosphere.

About the project:

Acral lentiginous melanoma (ALM) is a rare subtype of melanoma that arises on palms of the hands, soles of the feet and under the nails. It is the most common subtype of the disease in several countries in Latin America, Africa and Asia, and has a poor prognosis. About 20-25% of ALM patients develop metastases to distant organs, and this contributes importantly to the lower 5- and 10-year survival rates observed in ALM patients compared to non-ALM melanoma patients. However, no genes have been described to mediate the metastatic potential of ALM cells to date. In this project, we will perform a genetic screen to target and activate 660 candidate genes in ALM cells, and will use a mouse model to determine whether any of them enhance the metastatic potential of ALM cells. After identifying candidate genes, we will seek to validate them functionally by both specifically introducing them in ALM cells and knocking them out in highly metastatic cells, assessing their metastatic potential. The tumors studied will come from Latin American patients. The identification of mediators of metastatic potential in ALM tumours could open the path for the design of anti-metastatic drugs in the future. This project is in collaboration with Dr. Patricia Possik (National Cancer Institute, Brazil) and Dr David J Adams (Wellcome Sanger Institute, UK). This position is supported by a Pilot Award from the **Melanoma Research Alliance** (MRA, USA) and will last for a period of two years initially.

The ideal candidate will:

- Have a PhD degree in bioinformatics, genomics or computational biology
- Have experience in working with genome, exome and transcriptome analyses
- Be able to work independently within a research lab

The responsibilities of the successful candidate will be:

- To analyse genomes, exomes and transcriptomes from tumour samples to identify novel cancer-driving mutations, genes and transcriptional programmes, as part of the above project
- To co-supervise undergraduate and masters-level students undertaking bioinformatics projects

We offer:

- A tax-free stipend of MXN \$35,000 per month
- A laptop and access to the computational resources of LIIGH-UNAM (if you need other equipment to work it can be discussed)
- The possibility of remote working if it suits you better

If interested, please send a CV, cover letter, and the contact information of two references to Dr C Daniela Robles-Espinoza (drobles@liigh.unam.mx) before 30 June 2021.