

Postdoctoral Fellowship on Epigenetics of sex bias in Multiple Sclerosis

The Cantone laboratory is looking for a Postdoctoral candidate to join the group. The position is full time (24k/yr), initially awarded for 1 year and renewable afterwards.

Our research

A postdoctoral position is available in the group of Irene Cantone at the Department of Molecular Medicine and Medical Biotechnology at the University Federico II of Naples. The team studies fundamental mechanisms of gene expression and, in particular, the reactivation of developmentally silenced genes along the human inactive X chromosome (Xi). X chromosome inactivation and its reversal is an epigenetic exemplar that models the impact of chromatin remodelling on transcription. For this project, the Cantone group aims to determine whether and how the reactivation of genes on the human inactive X chromosome (Xi) occurs in lymphocytes and contributes to the sex bias observed in multiple sclerosis. To achieve this, the group will use state-of-the-art single cell transcriptomics and establish novel multi-omic techniques for sampling full-length RNA in parallel with epigenome features (e.g. chromatin accessibility and DNA methylation). These will allow direct determination of X chromosome reactivation and the underlying epigenetic defects in multiple sclerosis patients. Our studies will be paramount to understand the origin of sex bias for this autoimmune disease as the incidence in women has been raising over the last decades.



Job description:

We are seeking an enthusiastic and outstanding post-doctoral candidate with a strong background in molecular biology. The candidate will have the opportunity to implement cutting-edge single-cell multi-omic techniques both at the wet and in silico lab and to develop a number of novel single-cell analysis skillsets (e.g. allele-specific analyses). The project will be carried out supported by international collaborations within the School of Computational and Quantitative Biology of the University Federico II of Naples and the Telethon Institute of Genetics and Medicine (TIGEM).

Qualifications:

- PhD in a relevant discipline.
- A solution-oriented, organizational and positive mindset is required. The ability to work in a highly collaborative environment both independently and as part of the team is essential.
- Preparation of single-cell transcriptome or ATAC-seq libraries is a preferred but not essential requirement.
- Previous experience in handling primary lymphocyte is desirable
- Good publication record with evidence of independence
- Fluency in written and spoken English

The application must include:

1. Motivation letter (describe your long-term research vision, the reason for applying to be part of our team and why you think you are the right candidate to fill this position)
2. Curriculum vitae incl. education, experience, previous employments, language and other relevant skills
3. Contact details for 2 referees
4. List of publications

to be sent directly at irene.cantone@unina.it

Questions:

For further information visit our website cantonelab.org

or contact Dr Irene Cantone at irene.cantone@unina.it +39 0817464550