



Post-doc position: Role of epigenetic reprogramming in cancer cell plasticity

The project

The project – funded by the Italian Association for cancer research, AIRC - is centered on determining the contribution of epigenetic reprogramming in promoting tumor progression and metastasis formation. The objective of this proposal is to define the contribution of oncogenic enhancers to tumor heterogeneity during breast cancer progression and metastasis formation. By using cutting edge technologies, the herein program aims to solve enhancer-centered chromatin domains to gain insights on epigenetic heterogeneity and its impact on cancer cell plasticity during tumor progression.

The candidate

We are seeking highly motivated and enthusiastic candidates, willing to challenge an innovative project by adopting a pro-active attitude and an analytical approach. The candidate is requested to have experience on epigenome profiling (ATAC-seq, ChIP-seq and/or Hi-C) and NGS data analysis to address chromatin changes in cancer cells. The candidate should have a strong interest in interdisciplinary collaboration. The post-doc will experience both wet-lab and computational work, gaining a unique skill set required for future quantitative biology studies. Availability to learn methodologies based on using animal models is also requested. Given the international framework, the candidate should also have good communication skills and a team-oriented working attitude.

Qualifications:

- A high level of motivation and interest.
- PhD in Biology, Biotechnology, Bioinformatics, Computational Biology or in a related field
- Prior research experience in chromatin biology, molecular biology, cancer biology and/or stem cell biology (including a track record of peer-reviewed publications)
- Experience in genome-wide chromatin profiling and NGS data analysis will be a plus
- Proficiency in scripting environments for statistics and data analysis, and/or able to quickly acquire Bioinformatics computational skills.
- Excellent communication skills and good team spirit with the ability to solve problems independently
- High level of English speaking and writing skills.
- International mobility will be considered a major plus.

The environment

The lab of Chromatin Biology and Epigenetics is interested in determining the contribution of epigenetic changes to stem cell function, both in physiological and pathological settings. In particular, we are investigating the contribution of epigenetic reprogramming in driving cell plasticity during tumor progression and metastasis. Within the international and vibrant context of the Center of Integrative Biology (CIBIO) in Trento, Postdoctoral researchers joining the lab gain access to the Institute's advanced research training and career development opportunities. CIBIO offers the possibility to work in a young, highly dynamic and stimulating research environment thanks to a streamlined organization, which can support researchers to readily adapt to new scientific challenges through cutting-edge research infrastructures. At CIBIO, research goals are pursued in the frame of an integrative view of basic biological processes and of their derangement in disease, whereby basic science co-exists with biomedical oriented translational approaches.

Qualified and interested candidates should submit their application including CV, a motivation letter describing how her/his background would best fit this position, and the contact information of at least two referees. Please send all documents to Prof. Alessio Zippo (alessio.zippo@unitn.it). Applications will be considered until the position is filled.