## Bioinformatician/Computational biologist Postdoc Position at the European Institute of Oncology and University of Milan, IFOM-IEO-Campus, Milan - Italy

## COMPUTATIONAL APPROACHES TO DRUGGABLE EPIGENETIC CIRCUITS IN CANCER ORGANOIDS

The Laboratory of Stem Cell Epigenetics, headed by ERC Investigator Giuseppe Testa, invites applications for a postdoctoral position in computational biology on a highly innovative project that investigates cancer-associated epigenetic dysregulation in primary patient-derived tumor organoids.

A major focus of our lab is on disease modelling by integrating uniquely informative cohorts of primary patient's samples with a cutting-edge combination of cell programming and reprogramming, along with new computational resources for benchmarking differential expression (Germain et al., *Nucleic Acids Research* 2016). We recently elucidated the Polycomb-dependent dysregulation in transcription factor networks underlying glioblastoma multiforme (Signaroldi, Laise et al., *Nature Communications* 2016), and defined new benchmarks for the disease-modeling field through the thus far largest cohort of disease-specific, transgene-free iPSC from disorders caused by copy number variations (Adamo et al. *Nature Genetics,* 2015; *News and Views* by Urban and Purmann in the same issue).

This project is part of the Epigen Flagship Project of the National Research Council and is aimed at elucidating druggable epigenetic networks underlying ovarian cancer and glioblastoma multiforme, harnessing *in vitro* patient-derived tumor organoids that we have been spearheading and are now well established in the lab. The candidate will be part of an already highly active core of bioinformaticians in the lab and is expected to apply a broad range of methods (including reverse engineering and machine learning) to pioneer new approaches for the integrated analysis of these unique human datasets. The candidate is also welcome to propose and conduct new lines of research in computational biology that align with the general interests of the lab.

## Place of employment and work

The European Institute of Oncology is one of Europe's leading research institutes in biomedical research. It offers attractive salaries and benefits, an exceptional English-speaking research environment and cutting-edge technological platforms. It is located in the heart of Milan, a vibrant cosmopolitan city.

**Requirements**: Graduate degree in Bioinformatics/Computational biology/Informatics or PhD in Molecular Biology with a proven track record in bioinformatics/computational biology, especially in the analysis of Next Generation Sequencing experiments. We are looking for a highly motivated scientist to join an interactive, multi-national team at the cutting edge of cell reprogramming, neurobiology and computational biology (Signaroldi, Laise et al., *Nature Communications* 2016; Germain et al., *Nucleic Acids Research* 2016; Röst et al., *Nature Methods* 2106; Adamo et al. *Nature Genetics* 2015; *News and Views* by Urban and Purmann in the same issue; Fragola et al. *PLoS Genetics* 2013; Burgold et al. *Cell Reports* 2012; Testa *Bioessays*, 2011; Campaner et al., *Molecular Cell* 2011). Operating language of the lab is English.

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http://www.ieo.it/it/RESEARCH/Basic-research/Department-of-Experimental-Oncology11/Stem-cell-epigenetics-Unit/