

Role: Postdoctoral position-Bioinformatician @IIT Milan

Project: Deciphering the impact of the MYC oncogene on the dynamics of RNA metabolism

Commitment & contract: collaboration contract, 1+2 years

Location: Milan

WHO WE ARE

At IIT we work enthusiastically to develop human-centered Science and Technology to tackle some of the most pressing societal challenges of our times and transfer these technologies to the production system and society. Our Genoa headquarter is strictly inter-connected with our 11 centres around Italy and two outer-stations based in the US for a truly interdisciplinary experience.

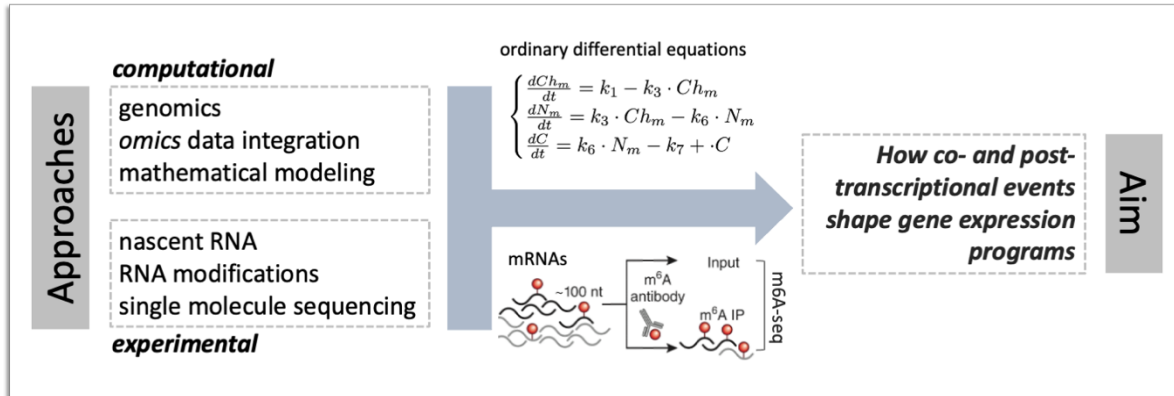
YOUR TEAM

You'd be working in a multicultural and multi-disciplinary group, where molecular biologists and computational scientists collaborate, each with their own expertise, to carry out common research. The group, headed by Prof. Mattia Pelizzola (<https://www.iit.it/it/web/genomic-science/pelizzola>), has extensive experience in post-transcriptional regulation in cancer, is part of the *Genomic Science* Research line coordinated by Francesco Nicassio, and member of the IIT *RNA initiative* (<https://www.iit.it/it/web/irna>).

The group has recently developed a novel method able to decipher how RNA abundance is dynamically controlled, at the level of different cellular compartments, through the coordinated action of various transcriptional machineries. In particular the method is able to quantify the efficiency of RNA synthesis, splicing, export, translation and degradation. The research focuses on understanding how MYC, an important transcription factor and oncogene, shapes the dynamics of RNA metabolism by impacting these steps of the RNA life cycle. This project relies on mathematical modelling methods established in the group and Nanopore sequencing of native RNA.

Within the team, your main responsibilities will be:

- Analyzing second (Illumina short-reads) and third (Nanopore long-reads) generation high-throughput sequencing data
- Taking advantage of available systems for the acute perturbation of MYC, to decipher how it impacts the dynamics of RNA metabolism
- Dissect the contribution of RNA modifications in the context of aberrant gene expression programs controlled by the MYC oncogene
- Closely interact with the experimental scientists for the interpretation of the results and the design of follow-up experiments
- Collaborate with other group members on exciting projects focused on studying how RNA dynamics and RNA modifications shape RNA fate and lead to cancer



WHAT WOULD MAKE YOU SHINE

- A PhD in bioinformatics or similar disciplines
- Documented experience on the analysis of high-throughput sequencing data
- Knowledge of R / Bioconductor
- A good publication track record
- The ability to properly report, organize and publish research data
- Documented experience in coaching junior scientists
- Good command in spoken and written English

EXTRA AWESOME

- Quantitative background, such as physics or engineering
- Knowledge or strong interest in RNA dynamics
- Experience on the analysis of Nanopore sequencing data
- Experience on the analysis of epitranscriptional data
- Good communication skills
- Strong problem-solving attitude
- High motivation to learn
- Spirit of innovation and creativity
- Good in time and priority management
- Ability to work in a challenging and international environment
- Ability to work independently and collaboratively in a highly interdisciplinary environment

COMPENSATION & BENEFITS

- Competitive salary package for international standards (*Salary can include bonus option depending on your role and contract*)
- Private health care coverage
- Wide range of staff discounts
- Flexible working time

Application's **deadline**: January 15th 2024

Apply at: <https://iit.taleo.net/careersection/ex/jobdetail.ftl?lang=en&job=2300008E>