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Bioinformatician in Molecular Cardiology

Dr. Paola Cattaneo Group,
University of Milan and IRCCS Monzino Cardiology Center, Milan, Italy

A Bioinformatician position is available in the *Group of Cardiac Development, Remodeling and Regeneration* under the supervision of Dr. Paola Cattaneo. The group is part of the University of Milan a center of Excellence and one of the biggest University in Italy and is located at the Monzino Cardiology Center in Milan, Italy. Further information at www.cattaneo-cardiolab.com

The research focus of the Cattaneo group is to decipher mechanisms by which transcription factors, regulatory elements and epigenetic enzymes orchestrate heart development, regeneration and cardiac fibrosis. For the specific project, new Ribo-seq datasets to access the specific aspect of RNA translation will be generated in order to identify new coding smORFs involved in cardiac physiopathology.

Prospective start date: September 2024 – December 2024

The contract is initially of 1 year with possibility of extension.

Salary scale is to be determined based on previous work experience.

The position is based in Milan (within the IRCCS Monzino Cardiology Center with possibility of partially working remotely).

Main Tasks:

- Setting up and operating bioinformatics analysis pipelines to process Next-Generation Sequencing data (RNA-seq, single cell RNA-seq, ChIP-seq, ATAC-seq and Ribo-seq) generated from human and mouse cardiac cells at baseline conditions or in pathological situations.
- Design and set up downstream analysis (eg. identification and functional annotation of regulatory elements, transcripts, etc.; statistical analyses of experimental results; integration of genomic, epigenomic and other datasets).
- Manage storage and maintenance of the genomic datasets produced by the research group, curation of data for depositions in public repositories or web interfaces.
- Analysis of datasets using machine learning algorithms.
- Support for grant applications, project reports and paper preparation.
- Participation in International collaborative projects.

General requirements:

- BSc, MSc or a PhD degree in genomics, computational biology and/or bioinformatics applied to any area of biology.
- Solid background in the analysis of Next Generation Sequencing datasets. Knowledge of at least one widely-used programming language (e.g. R or Python), and experience working with the Unix command-line and high-performance cluster computing.
- Organizational skills, time efficient, good communication skills and open-mind.
- Independent working method but also team-oriented work.
- Strong analytical skills and a creative, solution-oriented mindset are required.
- Good knowledge of verbal and written English
- The successful candidate is expected to be ambitious, hard-working, flexible and driven by scientific curiosity.

We offer very good training opportunities, a varied, creative research environment and possibility to join projects in collaboration with international groups (USA and Europe).

Please send your application with your CV, a letter of motivation and two reference letters or contact of previous supervisors to Dr. Paola Cattaneo, paola.cattaneo@cardiologicomonzino.it . Please use "Bioinformatician Application" as subject of the email.

Our group advocates equal rights for women, men and minorities. We strongly encourage everyone to apply.