IEO
Istituto Europeo di Oncologia

UNIVERSITÀ DEGLI STUDI DI MILANO

Bioinformatician position in Pasini's Lab

A ***bioinformatician position*** is immediately available in the laboratory of Prof. Diego Pasini. An ideal candidate should be highly motivated with excellent communication skills, a background in the fields of molecular and cellular biology and proven computational knowledge. Applicants at any level matching these criteria are encouraged to apply. Fluent communication skills in English are required. This is an open call valid until the position will be filled.

Scientific Focus

The work will focus in decrypting the molecular mechanisms that control cell transcriptional identity during developmental, regenerative and oncogenic processes. This will involve the use of data generated with from 2D, 3D (organoids) cellular systems, mouse genetics and patient-derived models with ***cutting edge high-throughput, transcriptomic, epigenomic ad single cell analyses***.

Work environment

The Pasini's laboratory operates within the Department of Experimental Oncology of the European Institute of Oncology (IEO) located in Milan, Italy (https://www.research.ieo.it/).

The candidate will work in close collaboration with the wet scientists of the laboratory embedded with the other bioinformaticians and researchers of the European Institute of Oncology (IEO, Milan). The candidate will have access to all needed computational infrastructures. We will provide a dynamic and stimulating scientific environment in which the candidate will have the opportunity to improve his/her research knowledge and computational skills and contribute to relevant research publications. The salary will be defined according to the candidate experience.

The IEO is one of the leading research institutes in Italy. IEO operates as a Comprehensive Cancer Center, linking fundamental and applied research to clinical activities, patient care and clinical trials. The Department of Experimental Oncology (DEO) is currently composed of ~250 scientists working in 20 independent research groups and units. DEO is located within a scientific campus together with two other partner institutions: the FIRC Institute of Molecular Oncology (IFOM) and the Italian Institute of Technology (IIT). The IEO is one of the 13 members of the EU-LIFE alliance to promote excellence in life sciences in Europe (http://eu-life.eu)

IEO is an equal opportunity employer committed to excellence through diversity.

Relevant recent publications

- Tamburri S., Lavarone E., Fernandez-Perez D., Conway E., Zanotti M., Manganaro D. and Pasini D. *Histone H2AK119 Mono-Ubiquitination Is Essential for Polycomb-Mediated Transcriptional Repression*. 31883952. **Molecular Cell**. 2020
- Scelfo A., Fernandez-Perez D., Tamburri S., Zanotti M., Lavarone E., Soldi M., Bonaldi T., Ferrari K. J. and Pasini D. *Functional Landscape of PCGF Proteins Reveals Both RING1A/B-Dependent-and RING1A/B-Independent-Specific Activities*. 31029542. **Molecular Cell**. 2019
- Pivetti S., Fernandez-Perez D., D'Ambrosio A., Barbieri C. M., Manganaro D., Rossi A., Barnabei L., Zanotti M., Scelfo A., Chiacchiera F. and Pasini D. *Loss of PRC1 activity in different stem cell compartments activates a common transcriptional program with cell type-dependent outcomes*. 31106267. **Science Adv**. 2019
- Lavarone E., Barbieri C. M. and Pasini D. *Dissecting the role of H3K27 acetylation and methylation in PRC2 mediated control of cellular identity*. 30976011. **Nature Commun**. 2019
- Rossi A., Ferrari K. J., Piunti A., Jammula S., Chiacchiera F., Mazzarella L., Scelfo A., Pelicci P. G. and Pasini D. *Maintenance of leukemic cell identity by the activity of the Polycomb complex PRC1 in mice*. 27730210. **Science Adv**. 2016
- Chiacchiera F., Rossi A., Jammula S., Zanotti M. and Pasini D. *PRC2 preserves intestinal progenitors and restricts secretory lineage commitment*. 27585866. **EMBO Journal**. 2016
- Chiacchiera F., Rossi A., Jammula S., Piunti A., Scelfo A., Ordonez-Moran P., Huelsken J., Koseki H. and Pasini D. *Polycomb Complex PRC1 Preserves Intestinal Stem Cell Identity by Sustaining Wnt/beta-Catenin Transcriptional Activity*. 26526724. **Cell Stem Cell**. 2016

Application details

Applicants should send a full CV, a brief motivation letter and the contact details for two referees in a single PDF file to diego.pasini@ieo.it

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Post-doctorate position in Pasini's Lab

A ***post-doc position*** is immediately available in the laboratory of Prof. Diego Pasini. An ideal candidate should be highly motivated with excellent communication skills, knowledge in the fields of molecular and cellular biology with proven expertise in transcription, chromatin and epigenetics. Fluent communication skills in English are required. This is an open call valid until the position will be filled.

Scientific Focus

The work will focus on the molecular mechanisms by which the chromatin environment and its modifications control transcriptional identity in the context of development, regeneration and human pathological contexts with a specific focus in oncogenesis. This will involve approaches of genetic engineering in 2D and 3D cellular models coupled to in vitro approaches and cutting edge high-throughput transcriptomic, epigenomic, single cell and mass-spectrometry analyses.

Work environment

The Pasini's laboratory operates within the Department of Experimental Oncology of the European Institute of Oncology (IEO) located in Milan, Italy (https://www.research.ieo.it/).

The candidate will work in close relationship with the computational scientists of the laboratory embedded with the researchers of the European Institute of Oncology (IEO, Milan). The candidate will have access to all the required infrastructures to pursue the research activity including fully equipped laboratories, tissue culture, mouse genetics and state-of-art technological units. A competitive salary will be offered according to the candidate experience.

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