

Senior and Junior Post-doc positions in cell biology and bioinformatics

We are looking for two highly motivated and creative post-doc and researcher fellow to develop novel RNA-based therapeutic approaches in pediatric osteosarcomas. The positions are in the context of a 3-year research grant funded by the Italian Ministry of Health. The ideal candidates will be part of a highly collaborative multidisciplinary environment between the Cancer Genomics and Bioinformatics (CGB) unit led by Prof Matteo Cereda and the Single Cell Biology (SCB) unit led by Dr Valentina Proserpio. Equipped with state-of-the-art technology and excellent core facilities, to which the successful candidate will have access, the institute provides outstanding research opportunities for its scientists.

Research

The CGB unit study the regulation of alternative splicing in cancer, with a strong focus on the role of RNA binding proteins (RBPs). The SCB unit study co- and post-transcriptional regulation of gene expression at single cell level. Our research aims at providing a comprehensive molecular characterization of splicing defects in lowly mutated and pediatric tumors. To achieve these goals, we will combine genomic, transcriptomic and epigenetic high-throughput approaches with big data science. The units rely on second- and third-generation sequencing data to gain novel insights into cellular oncogenic programs and immune regulation, and, importantly, favor the design of personalized treatments and the development of novel cancer therapies.

Role

The post holders will be responsible for the development and optimization of multi-omics analysis of tumor and immune cells at population and single-cell levels to identify neoepitopes generated by alternative splicing defects. RNA-based therapeutic approaches will be evaluated against these new epitopes within a clinical context.

Requirements

1. Post-doc position in Cell Biology

- Ph.D. in a relevant subject (e.g., molecular biology, genetics, biochemistry, or in a related field of the life sciences).
- Proven experience in molecular and cell biology.
- Prior experience in working with NGS, particularly in single-cell and long-read sequencing, is a significant plus.
- Ability to report research progress on a regular basis.
- Ability to present the results in oral presentations at meetings and in publications in top ranked journals relevant to the field.
- Fluency in English.
- Proven communication and problem-solving skills.
- Strong interpersonal skills demonstrated by the ability to gain the assistance and cooperation of others in a team endeavour.

- Ability to build trust through operating with transparency and creating an open and positive environment.
- Commitment to oncological research.

2. Post-doc position in Bioinformatics

- Ph.D. in a relevant subject (e.g., physics, computational biology, computer science, bioinformatics, bioengineering or in a related field of the life sciences).
- Knowledge of programming languages as R, bash, python
- Prior experience in working with NGS, particularly in single-cell and long-read sequencing, is a significant plus.
- Experience in standardised and modular bioinformatics workflows.
- Ability to present the results in oral presentations at meetings and in publications in top ranked journals relevant to the field.
- Ability to report research progress on a regular basis
- Fluency in English.
- Proven communication and problem-solving skills.
- Strong interpersonal skills demonstrated by the ability to gain the assistance and cooperation of others in a team endeavour.
- Ability to build trust through operating with transparency and creating an open and positive environment.
- Commitment to oncological research

Application

To apply for this position please submit to ufficio.personale@ircc.it and direzione.scientifica@ircc.it :

- a cover letter in English, describing research experience and motivation;
- CV in English;
- contact information of 2/3 references (for post-doc application only).

A coordinated and continuous collaboration contract is offered, lasting 24 months, with salary based on experience.

For any enquiries please contact matteo.cereda@iigm.it or valentina.proserpio@iigm.it

The position is available immediately.