



## Research Assistant - (REF.: PhD\_EM\_139)

The Josep Carreras Leukemia Research Institute (IJC) is a nonprofit research institute based in Barcelona and dedicated to advancing our understanding about leukemia and related disorders, in partnership with the University of Barcelona and University Autònoma of Barcelona. The IJC has laboratories in three clinical campuses: i) Clinic Hospital, ii) Sant Pau Hospital and iii) Germans Trias i Pujol Hospital. IJC serves as a collaborative hub for basic investigators and physicians to work together on fundamental biological and clinical aspects of leukemia. The IJC offers an excellent work environment built around a multi-disciplinary fusion of ideas and state-of-the-art facilities.

For further information, please, visit our webpage: <http://www.carrerasresearch.org/en> and the Josep Carreras nonprofit organization: <https://www.fcarreras.org/en>.

The Josep Carreras Leukemia Research Institute is looking for a **Research Assistant** to provide scientific support to the **Cellular systems genomics** led by **Dr. Elisabetta Mereu**.

### Research Description

The Cellular Systems Genomics Team is a new group of the IJC whose main goal is to define the spatial-temporal organization of complex tissues in health and disease, particularly inflammatory disorders and autoimmune diseases. We are interested in studying the different aspects of inflammation at cellular and tissue level as well as its resolution. We will study the immune system and how it changes and interacts with the host tissue, when is challenged by natural perturbations, such as disease and aging. To address these questions, we will adopt a single-cell perspective, enabling the fine-grained and spatially resolved molecular profiling of tissues. We will provide computational methods and develop new machine learning open source tools in order to unlock key regulatory mechanisms hidden in large-scale multi-omics datasets. The group has national and international collaborations and it is part of the ambitious Human Cell Atlas consortium.

We promote open science, diversity and support a friendly and no toxic environment.

For more information, please contact [emereu@carrerasresearch.org](mailto:emereu@carrerasresearch.org) or visit our group webpage:

[https://www.carrerasresearch.org/en/cellular-systems-genomics\\_169432](https://www.carrerasresearch.org/en/cellular-systems-genomics_169432)

### What we need

- MSc in Computational Biology, Genomics, Data Science or similar. Any scientific background is considered, especially quantitative fields, such as mathematics, physics, computer science and engineering are highly appreciated.
- Programming skills are required in R and/or Python.



- A high level of motivation and interest in research.
- Any research/work experience is considered.
- Good communication skills.
- Being open-minded, flexible and collaborative.
- Fluent in English.

## What we offer

- A 1-year training contract (“*Vida laboral*” will be requested due to contract conditions)
- Be part of a young, collaborative and international work environment with cutting edge technologies and interdisciplinary teams of scientists, including experts in medicine, biology, genomics and bioinformatics.
- Core facilities of the IJC include the genomics, proteomics and the single-cell unit, which is equipped with the Chromium Controller to perform the single-cell analysis.
- Access to storage and distribution of data with the Barcelona Supercomputing Center.
- Exciting and innovative research projects in the field of single-cell and spatial genomics.
- The stimulating environment of the Barcelona metropolitan area.

## Deadline for Applications

Please submit your application by **01/12/2022**.

## Who we are?

Our mission is to carry out research into the basic, epidemiological, preventive, clinical and translational aspects of leukaemia and other hematologic malignancies.

The vision of the Josep Carreras Leukaemia Research Institute is that research will identify new therapeutic targets and enable us to develop more precise and less aggressive treatments. We aspire to understand the origin and development of leukaemia and other malignant haematological pathologies in order to be able to prevent them. We will work for a future in which all leukaemias will be curable.

For further information, please, visit our webpage: <http://www.carrerasresearch.org/en> and the Josep Carreras non-profit organization: <https://www.fcarreras.org/en>



HR EXCELLENCE IN RESEARCH

The European Commission awarded the IJC the HR Excellence seal in July 2019. The IJC continues to work to maintain its policies in line with the Charter and Code principles.

The HRS4R has the main objective of ensuring that research centers of excellence implement and respect the requirements of the European Charter for Researchers and the Code of Conduct for hiring researchers (from here on referred to as the Charter and Code) within their human resources policies.

This EC initiative aims to promote training, professional development, and mobility for all European scientists. The IJC supports these values and principles, which will not only serve to strengthen its internal policies but will actively stimulate excellent research and



firmly situate the organization as an institution with a stimulating working environment that favors the development of its scientists.

**IJC is an equal opportunity employer. We evaluate qualified applicants without regard to race, color, religion, sex, national origin, disability, and other legally protected characteristics.**