

POSTDOCTORAL RESEARCHER - HISTONE VARIANTS, CHROMATIN ARCHITECTURE AND LEUKEMIA (REF.: PDR_MB_58)

The Josep Carreras Leukaemia Research Institute (IJC) is a nonprofit research institute based in Barcelona and dedicated to advancing our understanding about leukaemia 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 leukaemia. The IJC offers an excellent work environment built around a multi-disciplinary fusion of ideas and state-of-the-art facilities.

Research Description

The team of **Marcus Buschbeck** at the Josep Carreras Leukaemia Research Institute is looking for a motivated researcher to work on the main research line of the lab aiming to understand the link between chromatin architecture and metabolism provided by histone variants in the context of leukemia.

Histone variants can replace replication-coupled histones in the nucleosome and endow chromatin with unique properties (Buschbeck and Hake, 2017, NRMCB). We are interested to study the role of macroH2A histone variants in leukemia. Specifically, we wish to understand how binding of metabolites to macroH2As mediate changes in chromatin architecture and whether macroH2A are potential drug targets. This study is building on our previous findings that macroH2A histone variants contribute to nuclear organization and heterochromatin architecture (Douet et al., 2017, JCS; Kozłowski, Corujo et al., 2018, EMBO Rep) and they can affect cell metabolism through binding NAD⁺-dependent effector proteins (Posavec Marjanovic, Hurtado-Bagès et al., 2017, NSMB).

We will use cell culture and primary samples from mice and humans. Methods will include genetic and pharmacologic perturbations, analysis of proteins, DNA and RNA and their interactions and the generation and analysis of high-content data such as ChIP-seq and RNA-seq data.

Please also visit our group webpage:

http://www.carrerasresearch.org/en/Chromatin_Metabolism_and_Cell_Fate

What we need

- A high level of motivation and interest.
- Previous experience in cell culture.
- Experience in the generation and analysis of ChIP-seq, RNA-seq and chromosome conformation capture-based methods including the application of R-based methods.
- A competitive CV with a track record of publications that demonstrate expertise.
- PhD title.
- 3-6 years of previous experience. Collaborative attitude and communication skills.

- Good level of English speaking and writing skills (required). Spanish (helpful)
- Demonstrated capacity for teaching and supervision.

What we offer

- Incorporation in a multinational and highly collaborative team.
- An exciting and innovative research project.
- The opportunity to develop an exciting and innovative research project.
- The mixed basic and clinical research environment of the IJC.
- The international network of the Buschbeck lab.
- The stimulating environment of the Barcelona metropolitan area.
- Contract details will take into account the track record of the candidate.
- Start date: December 2020
- The contract will be funded by the Ministerio de Ciencia e Innovación, bajo la convocatoria Retos Investigación de Proyectos I+D+i, nº de expediente RTI2018-094005-B-I00.

How to apply

To apply for this opportunity, please send your resume and a cover letter and (incl. the contact details of two referees) to jobs@carrerasresearch.org indicating in the subject of the message: REF.: PDR_MB_58

Deadline for Applications: 1st December 2020.

Who we are?

Our mission is to carry out research into the basic, epidemiological, preventive, clinical and translational aspects of leukemia 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 leukemias and other malignant hematological pathologies in order to be able to prevent them. We will work for a future in which all leukemias will be curable.

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

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.