BIOMEDICAL SCIENCE FOR THE BENEFIT OF SOCIETY

**"Postdoc – Epimutational lineage tracing in AML and pre-AML"**
***Centre for Genomic Regulation (CRG)***

## The Institute

The Centre for Genomic Regulation (CRG) is an international biomedical research institute of excellence, based in Barcelona, Spain, with more than 400 scientists from 44 countries. The CRG is composed by an interdisciplinary, motivated and creative scientific team which is supported both by a flexible and efficient administration and by high-end and innovative technologies.

In April 2021, the Centre for Genomic Regulation (CRG) received the renewal of the 'HR Excellence in Research' Award from the European Commission. This is a recognition of the Institute's commitment to developing an HR Strategy for Researchers, designed to bring the practices and procedures in line with the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (Charter and Code).

Please, check out our Recruitment Policy

## The role

The Single Cell and Synthetic Genomics of Blood Formation lab (PI: Lars Velten) at CRG Barcelona is looking for a motivated postdoc with experience in computational biology and an intertest in translational science. Candidates with a background in medicine are also encouraged to apply.

Blood formation is an essential, biomedically highly relevant, and complex process of cellular differentiation. Our group studies adult hematopoiesis using computational biology, single cell genomics and genetic screens. We cover both basic science projects on gene regulation in HSCs (e.g. Frömel et al., *Cell* 2025), and more translational projects in the context of acute myeloid leukemia (AML) and pre-leukemia (e.g. Beneyto-Calabuig et al., *Cell Stem Cell* 2023). Recently, we have developed EPI-Clone, a unique method to identify and characterize expanded stem cell clones independently of driver mutations and during physiological ageing (Scherer et al., *Nature* 2025). EPI-Clone enables a new look at blood clonality and has wide applications in studies of ageing, pre-leukemia, leukemia, and beyond. Our publication on EPI-Clone was widely covered by the popular press (Le Monde, Financial Times, El País and others).

The successful candidate will work on applications of EPI-Clone to pre-AML and AML. Specifically, the hypothesis is that progression risk of pre-AML, as well as relapse risk of AML, can be predicted from properties of (pre-)leukemic clones. We count with a strong network of clinical collaborators for this project (University Clinics Heidelberg, TU Munich, Charité Berlin, IDIBAPS/Hospital Clinic, Hospital de St. Pau) and have access to unique and well characterized AML and pre-AML patient cohorts.

In your new role, you would:

- Develop a project on clonal evolution in pre-AML or AML
- Build on the strong knowledge of the group in single cell and clonal analyses (EPI-Clone)
- Lead computational data analysis
- Contribute to experimental data generation, initially hands-on and with a perspective to in the mid-term supervise a junior technician
- Interact closely with both wetlab and computational scientists from the group
- Serve as senior member of the team co-defining its translational strategy

## About the lab

This interdisciplinary group investigates the biology of hematopoietic stem cells using a combination of single cell genomics, genetic screens, and computational biology. We strive to develop novel genomic and

C/ Dr. Aiguader, 88
08003 Barcelona
Tel. +34 93 316 01 00
Fax +34 93 316 00 99
www.crg.es

bioinformatic tools to answer longstanding questions in the field. We cover two main research lines, a) Gene regulation in healthy haematopoiesis) and b) Clonal function in ageing and disease. The lab has been established in January 2020 and currently consists of seven members: Three PhD students, two postdocs and two senior technicians. We have received funding from the European Commission, the Spanish and German government, the Spanish Association Against Cancer and the European Hematology Association.

## Whom would we like to hire?

### Professional experience

#### Must Have

- You hold a PhD in a relevant field (computational biology, genomics, stem cell biology, hematology etc.), or, alternatively, you hold a Medical Doctorate and have experience in research with a computational component
- You have strong experience in computational data analysis and strong familiarity with R, python or related languages
- Strong interest in the biology of blood formation and blood cancer
- Strong interest in working in a translational setting
- You have demonstrated your ability to lead a challenging research project.
- You have published or pre-printed at least one primary research paper as first or co-first author
- You have some experience in experimental work

#### Desirable but not required/ Nice to have

- A strong foundation in machine learning and statistics
- You are experienced with flow cytometry and/or single cell genomics protocols

### Education and training

- A PhD in a relevant field (computational biology, genomics, stem cell biology, hematology, biotechnology etc.), or a Medical Doctorate

### Languages

- You are proficient in English
- Spanish or German of advantage, but not required

### Technical skills

- Genomics data analysis
- R (or python)
- Basic laboratory skills

### Competences

- Success-driven
- Strong academic writing skills
- Strong communication skills
- Pro-active in working with external collaborators
- Ability to work as part of a team

## The Offer – Working Conditions

- **Contract duration:** Technical and scientific activities contract linked to the contract (estimated duration until 31.8.2027, with possibility of extension until 5 years).
- **Estimated annual gross salary:** Salary is commensurate with qualifications and consistent with our pay scales.

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- **Target start date:** February 1, 2026 (flexible)

We provide a highly stimulating environment with state-of-the-art infrastructures, and unique professional career development opportunities. To check out our training and development portfolio, please visit our website in the training section.

We offer and **promote a diverse and inclusive environment** and welcomes applicants regardless of age, disability, gender, nationality, ethnicity, religion, sexual orientation or gender identity.

The **CRG is committed to reconcile a work and family life** of its employees and are offering extended vacation period and the possibility to benefit from flexible working hours.

## Application Procedure

All applications must include:

1. A motivation letter addressed to Dr Lars Velten.
2. A complete CV including contact details.
3. Contact details of two referees.

All applications must be addressed to Dr. Lars Velten and be submitted online on the CRG Career site - http://www.crg.eu/en/content/careers/job-opportunities

## Selection Process

- **Pre-selection**: The pre-selection process will be based on qualifications and expertise reflected on the candidates CVS. It will be merit-based.

- **Interview**: Preselected candidates will be interviewed by the Hiring Manager of the position and a selection panel if required.

- **Offer Letter**: Once the successful candidate is identified the People department will send a Job Offer, specifying the start day, salary, working conditions, among other important details.

**Deadline:** Please submit your application by **December 20, 2025.**

**Suggestions:** The CRG believes in **ongoing improvement** and promotes a **culture of feedback**. This is one of the reasons we have in place, at your disposal as a candidate, a mechanism to gather your suggestions/complaints concerning your candidate experience in our recruitment processes. Your feedback really matters to us in our aim at creating a **positive candidate journey**. You can make a difference and help us improve by letting us know your suggestions through the following form.

MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES
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C/ Dr. Aiguader, 88
08003 Barcelona
Tel. +34 93 316 01 00
Fax +34 93 316 00 99
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HR EXCELLENCE IN RESEARCH

EXCELENCIA SEVERO OCHOA

C/ Dr. Aiguader, 88
08003 Barcelona
Tel. +34 93 316 01 00
Fax +34 93 316 00 99
www.crg.es