



BIOMEDICAL SCIENCE FOR THE BENEFIT OF SOCIETY

“Postdoctoral Fellow – Deep Mutational Scanning”
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

We are looking to hire a Postdoctoral Fellow with experience in deep mutational scanning and data analysis to perform large-scale selection experiments to better understand and predict stop codon readthrough and nonsense mediated mRNA decay. Premature stop codons cause about 10% of human genetic diseases. Drug-induced readthrough of these stops is a potentially general method to treat many different rare diseases. We are using large-scale experimental testing of drug-induced readthrough of premature stop codons to quantify which stops are effectively readthrough by which drugs. This is an extension of our recent work described in the following publication: <https://www.nature.com/articles/s41588-024-01878-5>.

About the lab

The focus of Lehner lab is using massively parallel selection experiments to tackle the fundamental encoding problems of molecular biology. Towards this goal we have developed, benchmarked, and applied at scale experimental methods that use DNA synthesis-selection-sequencing to perform biophysical measurements including quantifying how changes in sequence alter protein stability, binding affinity, aggregation, allostery and expression. We have used these methods to produce the first comprehensive maps of long-range allosteric communication in proteins, to quantify the effects of >500,000 variants in >500 human proteins, and to probe the genetic architecture of proteins, protein interactions, and RNAs. A key component of this work has been the development of computational methods for analyzing deep mutational scanning data and for fast and flexible fitting of mechanistic and statistical models to the data. Our current focus is on generating datasets of sufficient size and diversity to train machine learning models to accurately predict how changes in sequence alter molecular biology.

Whom would we like to hire?

Professional experience

Must Have

- You have >3 years of experience in molecular biology and experimental assay development
- You have proven experience in deep mutational scanning or related approaches
- Experience in statistical data analysis and bioinformatics





Desirable but not required/ Nice to have

- Experience in high-throughput genomics

Education and training

- You hold a Phd in genomics, biophysics or a related discipline

Languages

- You are proficient in English

Technical skills

- You have advanced molecular biology skills
- You have the ability to analyse large sequence datasets
- You keep meticulous records

Competences

- You can work in an interdisciplinary team
- You can plan, optimise and execute complex protocols
- You can work independently and have experience of project management
- You have very good organizational skills

The Offer – Working Conditions

- **Contract duration:** Technical and scientific activities contract linked to the project duration (estimated 12 months)
- **Estimated annual gross salary:** Salary is commensurate with qualifications and consistent with our pay scales
- **Target start date:** June 2025

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 Ben Lehner
2. A complete CV including contact details.
3. Contact details of two referees.

All applications must be addressed to Dr. Ben Lehner 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 April 23, 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](#).

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