



BIOMEDICAL SCIENCE FOR THE BENEFIT OF SOCIETY

# "Bioinformatician- Gene Regulation, Stem Cells and Cancer Group"

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 shares principles of an interdisciplinary, motivated and creative scientific team that is supported by high-end and innovative technologies and a flexible and efficient administration.

CRG has been conferred with a badge of 'HR Excellence in Research' by the European Commission, in recognition to its progress in implementing the European Charter for Researchers and the Code of Conduct for Recruitment of Researchers, that among others consists of transparent, merit-based recruitment procedures and attractive work-life balance working conditions.

For further information: www.crg.eu

#### The role

We are seeking a talented Bioinformatician to join the Epitranscriptomics and RNA Dynamics group, to work on data analysis and algorithm development from sequencing data produced using Oxford Nanopore Technologies (ONT), using direct RNA sequencing. This novel technology, only released in mid-2017, is a promising cost-effective alternative to Illumina sequencing, which allows to directly detect RNA modifications as the molecules pass through the pore.

The candidate will also provide bioinformatics support to conduct functional integrative analysis of high-throughput '-omics' datasets (e.g. transcriptomics) generated by high-throughput sequencing platforms, which will be used as orthogonal validation of the data produced using Oxford Nanopore Technologies.

## About the team/ lab/ department

Our lab is focused on deciphering the role that RNA modifications play in a large variety of cellular contexts, including the development of novel technologies to map RNA modifications. In our lab, we are employing a combination of experimental (RNASeq, polysome profiling, mouse/cell knockouts, Oxford Nanopore direct RNA sequencing) and computational techniques (NGS data analysis, algorithm development, machine learning), to unveil the secrets of three post-transcriptional regulatory layers: the epitranscriptome, RNA structure and ribosome specialization.

## Whom would we like to hire?

To be successful in this application, you will be an analytical thinker with a strong background in Bioinformatics, proficiency in at least one programming language (C, C++, Python or R), who is motivated by being part of the innovative and dynamic culture of the CRG. You will be strong collaborator who thrives in a culture of performance and empowerment.

You will also possess the following key skills and attributes:

- You hold a BSc, MSc or undergraduate degree in Life Sciences, Computer Science, Bioinformatics or similar field.
- You hold a MSc and/or PhD in Bioinformatics, Statistics or Computer Science. MSc/PhD in Molecular Biology or similar field are also encouraged to apply if a strong computational background exists
- You have 3 years + experience in Programming, Computer Science and/or Data Analysis.









- You have strong experience and scientific expertise in analysis of high-throughput sequencing data, including RNASeq
- You have excellent analytical and problem-solving skills
- You have the capacity for carrying out duties under minimal supervision
- You have the drive and commitment to produce high quality experimental outcomes
- You have the ability to contribute to preparation of written reports and oral presentations

## Desirable but not required

You have experience and knowledge in handling Oxford Nanopore sequencing fast5 reads

#### The Offer

- Contract duration: 1 year contract
- **Estimated annual gross salary:** Salary is commensurate with qualifications and consistent with our pay scales.
- Target start date: January, 2019

We provide a highly stimulating environment with state-of-the-art infrastructures, and unique professional career development opportunities.

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

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. Eva Novoa
- 2. A complete CV including contact details.
- 3. Contact details of two referees.

All applications must be addressed to Dr. Eva Novoa and be submitted online on the CRG Career site - <a href="http://www.crg.eu/en/content/careers/job-opportunities">http://www.crg.eu/en/content/careers/job-opportunities</a>

Deadline: Please submit your application by 11th of November, 2018

