



HR EXCELLENCE IN RESEARCH

barcelonaβeta
BRAIN RESEARCH CENTER

Bioinformatics lab Manager position

in the Genomics Group in the Barcelonaβeta Brain Research Center

About the employer

The Barcelonaβeta Brain Research Center (BBRC) is a research center, constituted by the Pasqual Maragall Foundation and the Pompeu Fabra University. The goal of BBRC is to become an **internationally recognized centre of excellence in our understanding of age-related cognitive disability** in order to provide practical solutions to the global challenges posed by the **world's aging population**. Our goal will be achieved by **championing primary and secondary prevention programs for Alzheimer's disease and other related neurodegenerative disorders**, the study and promotion of healthy aging, and the research of the basic physiological mechanisms of cognitive functions affected by healthy or pathological aging. The vision of BBRC is to provide society with distinct and innovative solutions for age-related cognitive disability by leveraging complementary research programs to attain a multidisciplinary comprehension of the aging process and the pathophysiology of neurodegeneration.

Pasqual Maragall Foundation (FPM), Pompeu Fabra University (UPF) and "La Caixa" Foundation are permanent members of the BBRC Board. International competitive recruitment, state-of-the-art scientific facilities, effective management and continuous high-standard peer-review evaluation are the BBRC core proceedings to ensure achieving world-class research results. BBRC is affiliated and located in the Campus Ciutadella of the Barcelona Pompeu Fabra University, the building contains excellent technical facilities, **including a research-dedicated 3T MR scanner, Clinical Trials facilities, EEG and Eye Tracker labs**.

BBRC is also part of the Barcelona Biomedical Research Park (PRBB), a large research facility that hosts other seven different research institutions related to biomedical research, including the Center for Genomic Regulation (CRG), the Hospital del Mar Medical Research Institute (IMIM), the Department of Experimental and Health Sciences of the Pompeu Fabra University (CEXS-UPF), the Institute of Evolutionary Biology (IBE, CSIC-UPF), the Barcelona Institute of Global Health (ISGlobal) and the Barcelona site of the European Molecular Biology Laboratory (EMBL), among others, in a multidisciplinary, collaborative and stimulating international environment in close contact with a clinical setting, thus conducive to translational research.

BBRC endorses the Requirements and Principles of the **European Charter for Researchers**, the **Code of Conduct for the Recruitment of Researchers**, and Open, Transparent, Merit-based recruitment promoted by the European Commission and follows Equal Opportunities policies. On October 2020, BBRC Barcelona was awarded the **'HR Excellence in Research'** logo. This recognition reflects the commitment of the Institute to the continuous improvement of its human resources policies.

For more information see: www.fpmaragall.org and www.barcelonabeta.org

About the project

The BBRC has recently opened a Genomics lab, led by Professor Arcadi Navarro, in collaboration with the Pompeu Fabra University (UPF), the Center for Genomic Regulation (CRG) and the Institute for Evolutionary Biology (IBE, UPF-CSIC). The group focuses on the genomic architecture of age-related disease –including neurodegenerative disease– and on the analysis of full genomes, epigenomes and transcriptomes to ascertain the processes, variants and molecular features that underlie human ageing patterns as well as human disease and human-specific

traits. The group works in several dry-lab projects that involve the coordination of different technicians, students and postdocs.

Prof. Navarro is Professor of Genetics at the UPF, ICREA Research Professor, the Director of the European Genome-phenome Archive at the CRG and the Director of the BBRC and the FPM. He regularly participates in projects funded by the European Commission such as the H2020 projects ELIXIR-ACCELERATE, EUCANIMAGE, HEALTHYCLOUD, etc. In addition, his group at the CRG participates in major Spanish initiatives in Personalized Medicine such as the recently awarded IMPaCT project.

About the job

The Bioinformatics lab Manager will work in the premises of the BBRC and the UPF to carry-out dry-lab bioinformatics research, including the generation and maintenance of databases, programming, statistical analysis and interpretation of results. He/She is expected to bring IT knowledge and industry development practices to complement the biological orientation of the current team. He/She is also expected to suggest new IT approaches for research and information sharing that can open up new lines of activity for the group. An important aspect of her/his work, is that she/he will assist other lab members (PhDs, postdocs) in their projects.

Main Responsibilities

- Develops software tools for statistical analysis of biological data, visual representation of data and web based tools.
- Designs software development standards for the group and helps group members to implement them. This includes clean software development practices, software management repositories use, re-usability of code and testing routines among others.
- Participates in upkeep of the groups archives and files, performs maintenance on job-tracking systems.
- Manages lab databases, materials and software developments to ensure proper access and quality of the data and to avoid redundancies and ambiguities.
- Helps in the coordination between the group and providers of IT services.
- Organizes and accurately maintains written records of procedures and data collections.
- Keeps the group up to date of IT novelties and resources that could be of use for the scientific goals of the group.
- Assists with the instructing and training of students, fellows and technicians.
- Participates in group meetings with internal as well as external collaborations.
- Organizes and accurately maintains written records of procedures and data collections.
- Assists with the instructing and training of students, fellows and technicians.
- Participates and/or in regular internal meetings and internal as well as external collaborations.

Required qualifications, competences and technical skills

- You have a Computer science / IT engineer degree or another degree but demonstrable experience in the field.
- You have a background in computational methods for the analysis of human genomics and/or comparative genomics data.
- You are proficient in Shell scripting and Python programming language.

- You always write clean code.
- You have highly developed organization skills.
- You have excellent communication and writing skills in English.
- You are able to work collaboratively and with a high degree of autonomy.
- You hold a PhD degree in bioinformatics, statistics, genetics or a related discipline.

Desirable but not required/ Nice to have

- You hold a PhD in a relevant subject.
- Work experience in a Professional Environment
- Experience with statistical and data science tools (R, Pandas, SciPy ...)
- GPU programming
- Knowledge on Software Development Standards (PEP8)
- Advanced knowledge of GIT version management system
- Cluster management (slurm)
- Web based programming (Django ...)

We offer

- Starting date: Spring 2021 (starting date can be negotiated)
- The position is scheduled for 3 years and may become permanent Research Staff upon evaluation.
- We are hiring at any seniority level, salary will depend on experience and will be according to BBRC's salary scales

We offer work in a highly stimulating team, and BBRC offers and promotes a diverse and inclusive environment welcomes applicants regardless of age, disability, gender, nationality, race, religion or sexual orientation.

In the foundation we also care about developing your professional career so you will participate in internal and specific training for your job, promotion opportunities and development of your professional career. We evaluate the potential of our team in order to develop those skills necessary to achieve a high level of professional performance

Application process

To apply, please submit a single PDF file containing the following:

1. Cover letter describing research interests and relevant background;
2. CV
3. The names of up to three individuals who could provide reference letters. All files or inquiries should be submitted electronically to: rh@barcelonabeta.org

Subject: Bioinformatics lab Manager Genomics Group

Deadline: May the 21st 2021

We inform you that your personal data will be part of a file which Pasqual Maragall Foundation and Barcelonaβeta Brain Research Center are responsible of, in order to manage the job offer you have requested. Once the process is complete, the data processed will be erased.

You have the right to exercise the rights of access, rectification, cancellation and opposition recognized in Regulation (EU) 2016/679 (General Data Protection Regulation), to be addressed to the Pasqual Maragall Foundation and Barcelonaβeta Brain Research Center: Wellington Street 30, 08005 Barcelona.