

## JOB OPENING AT IRB BARCELONA

### Scientific Computing Lab Manager (ref. LAB/23/03)

IRB Barcelona is a world-class research centre devoted to understanding fundamental questions about human health and disease. It was founded in October 2005 by the Government of Catalonia (Generalitat de Catalunya) and the University of Barcelona (UB), and is located at the Barcelona Science Park (Parc Científic de Barcelona). The institute is a member of the BIST (Barcelona Institute of Science and Technology).

The Institute's missions include conducting multidisciplinary research of excellence at the unique interface between biology, chemistry and medicine, providing high-level training in the biomedical sciences to staff, students and visitors, driving innovation through active technology transfer to the benefit of society, and actively participating in an open dialogue with the public through a series of engagement and education activities.

**IRB Barcelona seeks an experienced high-performance computing specialist to work in the Genome Data Science Laboratory** (led by ICREA professor Fran Supek) at the IRB Barcelona.

The group aims to attract a **Scientific Computing Lab Manager** to manage the cluster, storage and the genomics pipelines of the team. The Lab Manager's overall mission will be design and administer the hardware and software infrastructure that enables scientific research on human genomic big data. Further, they will supervise and train team members. The Genome Data Science laboratory is dedicated to discovering **new ways to diagnose and treat cancer**, in the framework of the European Research Council (ERC) project "HYPER-INSIGHT" and the EU Horizon2020 project "DECIDER".

The role of the Scientific Computing Lab Manager will focus on the **provision of state-of-the-art high-performance computing services and bioinformatics/genomics pipelines**, in the collaborative setting of the Genome Data Science laboratory. In particular, this will involve being responsible for maintaining the group's compute cluster (Linux system admin; SLURM workload manager admin) and the group's storage units (Netapp, Synology), both in collaboration with the central IRB IT service.

Furthermore, the lab manager will interface with the IRB IT service to expedite solutions for diverse IT-related issues in the group (e.g. software setup), and also supervise and train lab members in their use of the group's HPC resources.

Finally, the lab manager will maintain the code of the group's own genomics pipelines and run the pipelines on the group cluster or on the cloud (e.g. AWS or Google).

Optionally, if desired, there is possibility of developing own research projects that fit within the research interests of the group, at the interface of genomics, HPC and AI.

A competitive salary can be offered, commensurate to experience. Flexible working arrangement. Starting date is as soon as possible.

#### DUTIES

- Provision of broad, state-of-the-art high-performance computing services to support research of the Genome Data Science group.



IRB BARCELONA 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 9th December, 2014, IRB Barcelona was awarded the "HR Excellence in Research" logo. This recognition reflects the commitment of the Institute to continuously improving its human resources policies in line with the *Charter & Code*. The Institute works to ensure fair and transparent recruitment and appraisal procedures.

- Maintaining the group's compute cluster (Linux system administration and software installation; SLURM workload manager administration)
- Helping manage the groups' netapp and Synology storage systems; helping manage the group's Linux workstations
- Choosing/purchasing new computing equipment, together with the PI and IRB administration
- Interfacing with the IRB central IT service to expedite solutions for IT-related issues in the team
- Training lab members in applying best-practices to the use of the group's IT resources and supercomputing/cloud computing services
- Running and maintaining the group's genomics pipelines on own cluster, and/or on supercomputers

## EXPERIENCE, KNOWLEDGE, SKILLS & SELECTION CRITERIA

### Must Have - Required

- **Experience:** One year or more experience in work on administering Linux machines (preferably servers/compute clusters)
- **Knowledge:** BSc or MSc in field relevant to the duties described (e.g. computer science, applied mathematics, bioinformatics/genomics). PhD-level candidates are encouraged to apply.
- **Skills:** Ability to work independently. Ability to interact well within an international team consisting of researchers of diverse career stages (PhD students, postdocs). Self-management.
- **Languages:** A solid level of spoken English is required.

### Desirable

- **Experience:**
  - o (i) administering and troubleshooting Slurm or another workload manager (SGE, HTCondor etc.);
  - o (ii) use of supercomputing and/or cloud computing (e.g. AWS, Google Cloud)
  - o (iii) use of containers (Singularity, Docker) and/or Conda and/or EasyBuild.
- **Knowledge:**
  - o (i) knowledge and/or desire to learn about bioinformatics methods and tools - e.g. aligners, variant callers [mutations, structural variants]).
- **Skills:** supervision/training of junior colleagues. Ability to deal with exceptional situations on short notice.

## WORKING CONDITIONS & ENTITLEMENTS

- **Working conditions:** Employed in compliance with Spanish legislation and regulations under a full-time contract. Employees receive the benefits of the Spanish Social Security system covering

sickness, maternity/paternity leaves and injuries at work. Salary commensurate with experience and qualifications.

- **International Environment:** The opportunity to join a prestigious international research institution and become a member of an elite research group.
- **Continuous training** in a high-quality environment.

## HOW TO APPLY & SELECTION PROCESS

Applications for the above opening should include ( i ) a **CV** (listing 1-3 relevant accomplishments, e.g. technical achievements, or software developed, or work on collaborative projects, or scientific publication; and explaining the candidate's contribution to each project in several sentences), ( ii ) **motivation letter**, and ( iii ) **contact information of 2-3 potential referees**.

Candidates for this position should apply on <https://recruitment.irbbarcelona.org/>

Reference: **LAB/23/03**

- **Deadline for applications:** 20/02/2023

When the applicants do not fit the requirements, the deadline will be able to be extended.

- **Number of positions available:** 1

- **Selection process**

- **Pre-selection:** Will be based on CV, motivation letter and experience.
- **Interviews:** Short-listed candidates will be interviewed.
- **Offered Position:** Job Offer will be sent to the successful candidate after the interview.

---

For more information please visit our website at: [www.irbbarcelona.org](http://www.irbbarcelona.org)

*Note: The strengths and weaknesses of the applications will be provided upon request.*

*If you, as an applicant, have any suggestion or wish to make a complaint regarding the selection process, please contact us at the following email address: [irbreruitment.suggestions@irbbarcelona.org](mailto:irbreruitment.suggestions@irbbarcelona.org) You will receive a response within a month.*