

JOB OPENING AT IRB BARCELONA

POSTDOCTORAL RESEARCHER (ref. PD/18/14)

Created in 2005 by the Generalitat de Catalunya (Government of Catalonia) and the University of Barcelona, IRB Barcelona is a Severo Ochoa Centre of Excellence—a seal that was awarded in 2011.

The institute is devoted to conducting research of excellence in biomedicine and to transferring results to clinical practice, thus improving people's quality of life, while simultaneously promoting the training of outstanding researchers, technology transfer, and public communication of science. Its 25 laboratories and seven core facilities address basic questions in biology and are orientated to diseases such as cancer, metastasis, Alzheimer's, diabetes, and rare conditions.

IRB Barcelona is an international centre that hosts 400 members and 30 nationalities. It is located in the Barcelona Science Park. IRB Barcelona forms part of the Barcelona Institute of Science and Technology (BIST) and the "Xarxa de Centres de Recerca de Catalunya" (CERCA).

IRB Barcelona is seeking a talented and highly motivated **Postdoctoral Researcher** to join the **Structural Bioinformatics and Network Biology** group led by Dr. Patrick Aloy (<https://www.irbbarcelona.org/en/profile/patrick-aloy>).

For many years, small molecules have been the main asset of pharmaceutical companies. However, there is a productivity crisis and the massive release of small molecule bioactivity data has not transformed drug discovery to the extent 'omics' data has transformed other biomedical sciences. To address this issue, we have developed a knowledge-based framework to digest and organize publicly available or proprietary compound bioactivities and express them in a vector form (*bioprints*) that can be used out-of-the-box in daily computational drug discovery tasks. We now aim to build on the general expertise of the group to develop a systems pharmacology strategy to tackle complex diseases, finding small molecules able to modify the biology of the disease and revert its molecular signatures to healthy-like states.

DUTIES

- Development and benchmark of novel bioprints, combining small molecule bioactivity with embeddings of biological data.
- Identify therapeutic opportunities to treat complex, orphan, neglected diseases.

EXPERIENCE, KNOWLEDGE, SKILLS & SELECTION CRITERIA

Must Have - Required

- **Experience:** previous experience in the integration and analyses of multi-Omics data
- **Knowledge:**
 - Bachelor in Biosciences, or Engineering degree in Computer Sciences
 - PhD in Bioinformatics, or related areas
- **Skills:**
 - Excellent programming and scripting skills, with deep knowledge of Python
 - Excellent knowledge of databases management (e.g. postgresSQL and Neo4j)



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 the continuous improvement of its human resources policies in line with the *Charter & Code*. The Institute works to ensure fair and transparent recruitment and appraisal procedures.

- Competent in the use of HPC queue systems, virtual machines (OpenNebula) and Grid Containers (Docker, Singularity)
- Excellent interpersonal and communication skills
- Highly motivated person
- Excellent writing and verbal communication skills in English

Desirable

- **Experience:**
 - Experience in International teams
 - Previous experience working on complex, orphan or neglected diseases

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.
- **Training and Career:** Postdoctoral researchers joining IRB Barcelona gain access to the Institute's advanced research training and career development opportunities, all within in a competitive international environment. Courses and workshops on themes of particular interest to postdocs are offered regularly by the Institute.
- **International environment:** Nearly 90 Postdoctoral researchers (more than a half non-Spanish nationals) are currently working at IRB Barcelona.

HOW TO APPLY & SELECTION PROCESS

Applications for the above opening should include a **CV** and **motivation letter** and should be sent by e-mail to: irbjobs@irbbarcelona.org with the Reference: **PD/18/14**

- **Deadline for applications:** 31/12/2018
If no suitable candidate is found, the deadline will 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.
 - **Job offer:** Will be sent to the successful candidate after the interview.

For more information please visit our website at: 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: irbrecruitment.suggestions@irbbarcelona.org You will receive a response within a month.