

JOB OPENING AT IRB BARCELONA

Advanced Optical Microscopy & Nanoscopy Research Officer (ref.CF/18/03)

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

A **Facility-oriented Research Officer** with strong experience in Advanced Microscopy and solid foundations in image analysis to integrate the Advanced Digital Microscopy (ADM) team (4 employees) and reinforce the support to scientists in several technological lines. The selected candidate will help running the newly acquired super resolution instrument (Elyra PS1+ LSM880 + Airyscan) and develop routine experimental workflows.

The ADM core facility offers a complete range of microscopy instruments and image analysis solutions to the IRB community and to external entities (i.e. national and international). ADM runs 11 advanced systems and supports scientists from sample preparation, Image acquisition up to data analysis. Technologies available are laser scanning confocal, spinning disk, multiphoton, lightsheet imaging, TIRF, FLIM/FRET in TCSPC, Macroscopy, Laser nanosurgery, High-content Imaging and Intelligent imaging, and the recently added multimodal super-resolution microscopy.

DUTIES

- Super resolution: Review, benchmark and develop sample preparation techniques to support scientists, handle instrument calibration and periodic maintenance. Handle the experimental set up of specific projects together with scientists.
- Super resolution: Use/customize workflows for image analysis in image scanning microscopy (e.g. Airyscan), structured illumination microscopy (SIM) and single molecule localization microscopy (SMLM, e.g. PALM STORM). Set up routine data acquisition workflows to perform correlative imaging between those three techniques.
- Super resolution: handle individual training with users and follow up on their projects.
- Super resolution: design training material and participate in training activities.
- Other imaging modalities: Master the use of most instruments for confocal microscopy and support scientists with advanced imaging systems (i.e. confocal systems, TCSPC FLIM, FRAP, multiphoton etc...)
- Bioimage Analysis: Handle image analysis software tools, including commercial and open source packages, and develop image analysis scripts for user's projects.



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.

EXPERIENCE, KNOWLEDGE, SKILLS & SELECTION CRITERIA

Must Have - Required

- **Experience:**
 - At least 2 years of experience in Life Science with daily work involving Bioimaging.
 - Strong experience and interest in Advanced Microscopy Techniques.
 - Experience in the 3 aspect of Bioimaging: Sample preparation, Instrument, Analysis.
- **Knowledge:**
 - PhD in Physics/Life Science/Electrical Engineering (or equivalent)
 - Advanced Optical Microscopy+Nanoscopy and related principles, Bioimage Analysis.
- **Skills:**
 - Use of confocal and widefield fluorescence imaging systems, Live-Cell imaging, sample preparation (e.g. on cultured cells or equivalent, immunolabeling), fluent use of open source software packages (e.g. ImageJ/Fiji, etc...)
 - Excellent writing and verbal communication skills in English.

Desirable

- **Experience:** Super resolution techniques. Single molecule imaging techniques. Sample preparation for PALM/STORM/d-STORM experiments, optical clearing techniques
- **Knowledge:** Optical components in fluorescence microscopy systems, Photophysics of fluorophores, photon detectors, Cell Biology.
- **Skills:** Acquainted to a scientific scripting language (e.g. Matlab, IJ macro scripting, Python etc...)

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 established Core facility offering a broad technological panel of services and strongly oriented to international cooperation.
- **Continuous training** in a high-quality environment.

HOW TO APPLY & SELECTION PROCESS

Applications for the above opening should include **CV**, **motivation letter**, minimum of **two referees contacts** and should be sent by e-mail to: irbjobs@irbbarcelona.org Reference: CF/18/03



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- **Deadline for applications: 06/04/2018**
This deadline may be extended if suitable candidates are not identified.
 - **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.
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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: irbreruitment.suggestions@irbbarcelona.org You will receive a response within a month.



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