



INSTITUTE  
FOR RESEARCH  
IN BIOMEDICINE

## OPEN POSITION AT IRB BARCELONA

### SENIOR RESEARCH OFFICER ADVANCED DIGITAL MICROSCOPY

(ref. CF/10/01)

The Institute for Research in Biomedicine (IRB Barcelona) is an independent, non-profit research institution engaged in basic and applied biomedical science. It is located in the Barcelona Science Park (Parc Científic de Barcelona, PCB), a centre in which first-class public research converges with the private sector in a stimulating, vanguard scientific environment. IRB Barcelona was founded in October 2005 by the Government of Catalonia (Generalitat de Catalunya), the University of Barcelona (UB) and the Barcelona Science Park and is administrated through a private foundation. The Institute currently has 470 members (scientific, technical and administrative staff) and plans to grow significantly in the coming years.

The ADM facility, inaugurated in 2009, currently provides expertise, assistance and full time access to conventional transmission and epifluorescence microscopes (6 units), motorized fluorescence Macroscopy (1 unit), Spectral Confocal microscopy (3 units), including FRAP, FRET, Photoactivation and Multiphoton microscopy, Spinning disk confocal Microscopy (1 unit), 'High Content Screening' Automated Microscopy (1 unit widefield) and TIRF microscopy, Laser Nanosurgery of living cells and organisms combined with FRAP (1 unit, widefield), and Image Processing workstations (2 units). Besides, ADM is also involved in developing research instrumentation and currently implements light-sheet based fluorescence microscopy (SPIM, or Ultramicroscopy).

The Advanced Digital Microscopy Core Facility is seeking an experienced Light Microscopy and Image Processing specialist to develop and reinforce image analysis within the Facility.

#### DUTIES

The successful candidate will work on a broad range of applications:

- Perform Image Processing and Analysis of 2D to 5D microscopy data. This includes for example: reconstruction and analysis of cell/organisms volumes, segmentation and dynamic analysis of time- and spectrally multiplexed sequences, FRAP, FRET, spectral analysis, high-content data analysis, deconvolution.
- Provide support with existing software packages.
- Develop Image analysis related to commercial systems, for instance, but not limited to, in the fields of automated high-content data analysis, multiplexed timelapse imaging (spectral confocal, multiphoton and widefield).
- Develop Image processing tools in combination with the development of instrumentation at the facility, for example, but not limited to, light-sheet based fluorescence microscopy or superresolution microscopy.
- Lecturing theoretical and practical courses organized by the facility.

He/she will also take part in the basic activities of our facility, for example by:

- Training new users in the use of available equipment and techniques, and providing support for current users.
- Occasionally, operating maintenance of the microscopes and associated equipment.



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## CANDIDATE PROFILE

The successful candidate:

- Should hold a PhD degree, or justify an equivalent experience, in an area of life sciences, physics, mathematics or computer science.
- Extensive knowledge in modern fluorescence Light Microscopy and Image Processing is essential. Highly motivated to become a key expert in data analysis, light microscopy and live cell imaging at IRB Barcelona.
- Good knowledge of Image Analysis packages is important, programming skills are essential.
- Strong interest in life sciences will be determinant, familiarity with basic molecular biology and experience with biological samples handling would be a plus.
- Interest in complex technical equipment will be considered, knowledge and interest in hardware development and related control software would be a plus.
- Flexible and dynamic person, with good organizational skills and highly motivated to work in a research environment. Fluency in English required. Good interpersonal and communication skills are essential to work in our team and interact with researchers of IRB and various institutes in the Science Park.

The call will remain open until suitable candidates are identified.

## HOW TO APPLY

Please, send a letter describing your interest in the position, a complete CV and contact information of two references in English by email to: [irbjobs@irbbarcelona.org](mailto:irbjobs@irbbarcelona.org)  
Please quote reference CF/10/01