

Training Opportunity for Portuguese Graduates

Call for applications 2019

Title	Duty Station
Superresolution microscopy (Cell Biology & Biophysics Unit, Ries Group)	EMBL Heidelberg/Germany
Supervisor name and function Jonas Ries, Group Leader	
Domain of activity and project Superresolution microscopy (optical or algorithmic improvements of single-molecule localisation microscopy). The Ries group develops new optical, computational and biological technologies for super-resolution microscopy (specifically single-molecule localisation microscopy) with the aim to resolve the structure and dynamics of protein machines in cells. Depending on the background of the applicant, there are two possible projects: a) Development of new microscopes with increased 3D resolution and multi-colour abilities b) Development of new algorithms to analyse super-resolution data to improve accuracy and speed of imaging.	
Required education Physics, engineering or IT	
Knowledge, skills and any special requirements Either optics / microscopy or programming / software development	
Training opportunity for the Graduates The graduate student will be trained in all aspects of super-resolution microscopy: sample preparation, acquisition and data analysis. Depending on the project, the graduate student will gain in-depth experience either in optical instrumentation development, or image formation in microscopes, machine learning and optimisation algorithms, or image analysis algorithms.	
Further information (website) https://www.embl.de/research/units/cbb/ries/index.html	