



Postdoctoral position in super resolution imaging of chromatin function at the CRG, Barcelona

Pia Cosma Laboratory

Gene Regulation, Stem Cells and Cancer Programme
Reprogramming and Regeneration Laboratory
<http://piacosmalab.com/>

Research at the Centre for Genomic Regulation (CRG, www.crg.eu) falls into four main areas: gene regulation, stem cells and cancer; cell and developmental biology; bioinformatics and genomics; and systems biology. Scientists at the CRG have access to state-of-the-art Core Facilities, including genomics, next generation sequencing instruments, bioinformatics, proteomics, super resolution microscopy, FACS, and animal house.

Reprogramming and Regeneration Laboratory

Pia Cosma's group is focused on the study of the mechanisms that control somatic cell reprogramming and tissue regeneration (<http://piacosmalab.com/>). Using super-resolution fluorescence microscopy (stochastic optical reconstruction microscopy; STORM) (Rust et al., Nature Methods, 2006) in collaboration with the group of Melike Lakadamyali (UPENN, USA) we have dissected out the nanoscale organization of nucleosome assembly, with high molecular specificity and spatial resolution in a variety of somatic and stem/ reprogrammed cells. We have delineated a novel model of chromatin fiber assembly, and the relationship among the decoded structure and naïve pluripotency (Ricci et al. Cell 2015). More recently we set up powerful imaging approach to visualize genes at nanoscale resolution (Neguembor et al. NAR 2017).

Within an H2020 funded project, CellViewer, <http://www.cellviewer.eu>, we are currently studying the changes in chromatin structure and organization during somatic cell reprogramming and differentiation, to determine how chromatin fibers can be rearranged to overcome epigenetic barriers to gain pluripotency.

The CellViewer consortium is composed of highly interactive academic and industrial partners with the mission to bring the comprehension on chromatin structure and function to the frontier of scientific knowledge using a highly interdisciplinary approach.

Post Description and Candidate requirements

The Cosma and Lakadamyali groups are looking for a highly motivated research scientist with consolidated expertise in biomedicine, physics or related disciplines. The candidate will hold a PhD and will have experience with cell culture and imaging methods. Experience in the area of super resolution microscopy (STORM, PALM) and/or CRISPR/Cas engineering methods will be considered an added value. The successful candidate will work within the CellViewer project, specifically asked to develop super resolution imaging approaches of RNAs.

Conditions

The offer is to cover a Postdoctoral position with a very competitive salary that will be well matched relative to the cost of living in Barcelona.

Starting Date

The fellowship will start as soon as the candidate is hired, ideally by June the 1st, 2018.

Application Procedure

All applications must be addressed to Pia Cosma; and include a full CV with contact details, a cover motivation letter and contacts of 2-3 references. Please submit your application at: pia.cosma@crg.es

Deadline 7 May 2018 (note that applications will be continually monitored)

