

Scientific collaboration between the Guangzhou Institutes of Biomedicine and Health (GIBH) and Center for Genomic Regulation (CRG)
2 Postdoctoral Positions to study stem cell physiology and somatic cell reprogramming at the Guangzhou Institutes of Biomedicine and Health, Chinese Academy of Sciences
Guangzhou, China

The Guangzhou Institutes of Biomedicine and Health (GIBH, <http://english.gibh.cas.cn/about/at/>) is focused in research areas including stem cell and regenerative medicine, chemical biology, immunology and infectious diseases. Aimed to achieve the goal of "Healthy China" strategy and satisfy human health demands, GIBH is exploring disease mechanism with the cutting-edge technologies and developing innovative protocols for disease control and prevention. It provides excellent R&D platform in biomedicine and functions as an incubator for bioengineering and pharmaceutical industries to support local economic development as well as national strategic R&D programs.

Reprogramming and Regeneration Laboratory

Pia Cosma's group is an internationally recognized laboratory (<http://piacosmalab.com/>) and will start at partnership with GIBH in August 2018. The group has as main objective to investigate the mechanisms controlling the reprogramming of somatic cells, and to determine if this reprogramming contributes to tissue regeneration in higher vertebrates. Cosma's group has discovered that activation of the Wnt/ β -catenin signalling pathway enhances cell-fusion-mediated reprogramming of somatic cells and studied extensively the mechanism behind (Lluis et al., Cell Stem Cell 2008; Stem Cells 2010; PNAS 2011; Alicino et al., Stem Cell Report 2014; Marucci et al. Cell Reports 2014; De Jaime-Soguero et al. Plos Genetics 2017). Cosma's group demonstrated that regeneration of the retina, dopaminergic neurons in Parkinson's disease and of liver after hepatectomy is possible via Wnt controlled cell-fusion-mediated reprogramming (Sanges et al., Cell Reports 2013; J. of Clinical Investigation 2016; Pesaresi et al. eBioMedicine 2018; Altarche-Xifro' eBioMedicine 2016; Pedone et al., Cell Reports 2017).

In addition, Cosma's Group has a long interest in studying gene and chromatin function (Cantone et al, Cell 2009). Recently using super resolution microscopy (STORM), the group has identified a new model of chromatin fiber assembly and how the fiber changes in somatic and embryonic stem cells (Ricci et al. Cell 2015, Neguembor et al., NAR 2017).

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.

Post Description and Candidate requirements

The Cosma group is looking for a highly motivated research scientist with consolidated expertise in biomedicine, biophysics or related disciplines. The candidate will hold a PhD and will preferentially have experience with cell culture, microscopy and mouse model. Experience in super resolution microscopy and/or CRISPR/Cas engineering will be an added value. If necessary, the successful candidate will be trained in STORM microscopy at the CRG, Barcelona, Spain for few months before to move and work at the GIBH, Guangzhou.

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 and Guangzhou.

Starting Date: The fellowship will start ideally as soon as the candidate is hired.

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.eu. Note that applications will be continually monitored and suitable candidates will be hired as soon as they are identified.