

## Postdoc position in big data analytics / computational biology

A postdoc position in big data analytics is available for a highly motivated researcher with expertise in the analysis of high-content microscopy data to join the interdisciplinary lab of Rafael Carazo Salas in the University of Cambridge UK (<http://www.gurdon.cam.ac.uk/carazosalas.html>).

Our lab's main focus is on understanding how the gene and protein networks that regulate cellular growth, division and morphogenesis operate in space and in time, and how different cell shapes and growth patterns can arise from a single genome. To that end, we use interdisciplinary Systems Biology approaches and yeast as primary experimental model organism.

We have pioneered the development of 3D image-based high-throughput/high-content microscopy pipelines for yeast functional genomics studies, and recently completed the first genome-wide screen for genes that regulate cell shape, microtubules and cell cycle progression. This has led to terabyte-sized single cell level genome-wide data, mined into hundreds of novel candidate regulators. Capitalizing on this technology, several more screens for genes and pathways regulating other processes are ongoing in our group. Our vision is to generate an unprecedented and incremental genome annotation resource allowing us to share, analyze and visualize the biological big data sets we are generating, and to provide fundamental new insights into how genes regulate and coordinate multiple biological processes in cells and how diverse processes are co-regulated.

In the context of the ERC funded project SYSGRO, this postdoc position will therefore aim to help increase and mine the multi-dimensional genomic datasets arising from those screens, by developing tools for structuring, integrating, analyzing and cross-mining the datasets. The person would benefit from close interaction with the Cambridge Systems Biology Centre located nearby (Pombase, <http://www.pombase.org/>, InterMine, <http://intermine.github.com/intermine.org/>).

The ideal candidate must have a PhD in a relevant area (machine learning, computational biology, bioinformatics, image analysis or similar) and be very enthusiastic, highly motivated, with a record of excellence and excited to work in an interdisciplinary environment. Experience with high-throughput/high-content microscopy pipelines or bioimage informatics is a definite plus.

Interested candidates should send a CV, publication list, brief description of motivation and contact information for two references to: [rafael.carazosalas@gurdon.cam.ac.uk](mailto:rafael.carazosalas@gurdon.cam.ac.uk) .

Further info available at <http://www.gurdon.cam.ac.uk/vacancies.html> .