BIMIB bioinformatics milano bicocca

Position in the field of Systems Biology: Modeling, Simulation and Semi-automated Hypotheses Formation

A position is available in the BIMIB laboratory of DISCo Università Milano Bicocca, Italy, in the field of Systems Biology (`http://bimib.disco.unimib.it`).

We have two major research areas of interest:

1) modeling the development of colon-rectal cancer (CRC) by simulating molecular and cellular processes of intestinal crypts. The research will explore the possibility of running several control-theoretic schemes in order to form hypotheses about the role of different regulatory and metabolic actors.

2) development of tools and methods for the integrative analysis of genomics data, such as gene expression and mutation profiles, utilizing functional annotations, protein interactions and pathway scoring models such as enrichment analysis. These will be interfaced to the network visualization environment Cytoscape and the BioPAX interaction exchange format.

The applicant will either have a computational biology background, a biology/biomedical background with interests in computer science and mathematical modeling and optimization, or a mathematical modeling, optimization, and heuristics, and computer science background with interests in biology and medicine. Large software systems construction skills and/or database and programming language development systems are required. Knowledge of mathematical and statistical software such as Matlab™, Mathematica™ and R (or similar) is expected. Knowledge of parallel and distributed computing systems, is a plus. The research may be directed to the development of Cytoscape plugins, thus previous knowledge of such system (and similar ones) will also be considered positively.

The position is funded by the Lombardy Region grant ASTIL (regional decree 1669 of June 18th 2010) and by the Università degli Studi di Milano Bicocca. The project will be carried out in collaboration with the Terrence Donnelly Centre for Cellular and Biomolecular Research of the University of Toronto, Canada. The position is for 12 months and comes with a net salary of about 1550 EUR per month. The starting date will be November 1st, 2011.

To apply, please send

1. a curriculum vitae (with a list of publications)
2. a statement of research
3. a list of two or more references

to `retronet-jobs@disco.unimib.it`.

Due to the complexities of the University of Milan Bicocca rules and regulations and Italian Law, the candidates will be required to submit a paper copy of their application by the first week of October.