On behalf of prof. dr. ir. Y. Moreau please find the following job vacancy for a postdoc: Candidate gene prioritization by genomic data fusion.

The start date for this position is September 1st 2012

Feel free to forward it to colleagues who might be interested.

URL: http://phd.kuleuven.be/set/postdoc/voorstellen_departement?departement=50000516

Sincerely,
Mimi Deprez

Candidate gene prioritization by genomic data fusion

Promotor: Yves Moreau

Description: The Bioinformatics Lab at the University of Leuven is searching for an exceptional postdoctoral fellow who will work under the supervision of Prof. Yves Moreau to develop a novel platform for candidate gene prioritization by genomic data fusion. The lab has developed Endeavour for the prioritization of candidate diseases genes using heterogeneous genomic data (Aerts et al., 2006). This platform is now broadly established within the human genetics community as an effective tool to support disease gene discovery (Thienpont et al., 2010). We have also extended our original methodology using network analysis (Lage et al., 2007) and kernel methods (De Bie et al., 2007; Yu et al., 2010). The goal of the postdoctoral fellow will be to develop a platform for gene prioritization that implements such strategies and is broadly usable by wet-bench biologists (web interface) and bioinformaticians (API or web service).

The candidate will hold a PhD in bioinformatics with an excellent publication record. The ideal candidate will have a strong record in software engineering of bioinformatics methods, analysis of molecular networks, and practical applications of kernel methods. Excellent Java and web application development skills are essential. The candidate should have extensive practical knowledge of kernel methods, including software libraries (for example, Shogun). Knowledge of multiple kernel learning and feature selection methods is a plus, as well as the capacity to develop novel kernel algorithms. Knowledge of molecular network analysis and bag-of-word text-mining methods are additional assets.
The postdoctoral fellow will be embedded in the SymBioSys Center for Computational Systems Biology, which is a consortium of computational scientists and molecular biologists at the University of Leuven that focuses on how individual genomic variation leads to disease through cascading effects across biological networks (in constitutional disorders and leukemias). We develop innovative computational strategies for next-gen sequencing and biological network analysis, with demonstrated contributions to actual biological breakthroughs. Eagerness to collaborate with biologists and geneticists on gene discovery projects is crucial. Ability to contribute to coaching PhD students and acquiring external funding is another plus.

We offer a competitive package and a fun, dynamic environment with a top-notch consortium of young leading scientists in bioinformatics, human genetics, and cancer. Our consortium offers a rare level of interdisciplinarity, from machine learning algorithms to fundamental advances in molecular biology to direct access to the clinic. The University of Leuven is one of Europe’s leading research universities, with English as the working language for research. Leuven is one of Europe’s most beautiful university towns, just outside Brussels, at the heart of Europe.

Related publications by the lab

Key words: bioinformatics, candidate gene prioritization, genomic data fusion, network analysis, kernel methods, software engineering, Endeavour

Start date: 2012-09-1
Application date: 2012-06-26
Publication date: 2012-03-26

Financing: SymBioSys


Research group: Department of Electrical Engineering (ESAT)
Remarks: Please send in PDF:

(1) a CV including education (with Grade Point Average, class rank, honors, etc.), research experience, and bibliography,

(2) a one-page research statement, and

(3) three references (with phone and email) to Prof. Yves Moreau, c/o Ms. Mimi Deprez – <mailto:mimi.deprez@esat.kuleuven.be>mimi.deprez@esat.kuleuven.be. Preferred start date is September 2012. The candidate will commit to a three-year postdoc period.

Apply to <http://phd.kuleuven.be/set/postdoc/voorstellen_departement?departement=50000516> Click here to apply to this project