



PhD position Computational Systems Genetics (1,0 fte) (211081)

Job description

As part of an international collaborative project with MIT (Massachusetts Institute of Technology, USA), we make use of Next Generation Sequencing data (RNA-seq) in the mouse in response to macrophage infection. This project provides an unprecedented platform for the next generation geneticists to explore the complex causes underlying phenotypic variation in a host-pathogen context. Variation in molecular and phenotypic traits can be correlated to DNA sequence variation using the methods of quantitative trait locus (QTL) mapping. In addition, the correlation structure in the molecular and phenotypic traits can be informative for inferring the underlying molecular networks and causative genes (causal inference). The data size ('big data') calls for creative and efficient analysis and tools. We are specifically seeking someone interested to develop the statistical and computational methods and software for high-throughput 'big data' in the context of this project.

Qualifications

You are a university graduate at MSc level in one of the following disciplines: computer science, bioinformatics, statistics, mathematics, theoretical biology, population/evolutionary genetics, physics. A proven ability to perform creative interdisciplinary research is required for this position. Applicants should have a proven track record in (open source) software development using modern programming principles and languages (e.g. C, Java, Scala, Ruby). We also expect a pro-active attitude and the ability to initiate and execute research lines independently. Excellent communication and reporting skills are necessary. You should be able to write scientific articles and reports (to be proven by your graduation thesis or another comparable report) and be fluent in English language (written and verbal). Only applications with a clear, concrete and personal 'statement of interest' for this project will be considered.

Organisation

The University of Groningen is one of the largest and oldest research universities of The Netherlands. It ranks among the top 200 universities in the world (The Times World University Rankings, 2010-2011). The Groningen Bioinformatics Centre (GBiC) is one of the leading bioinformatics groups in Europe. It is a major player in the development of modern Systems Biology and Systems Genetics approaches, with strong international collaborations with many clinical and biological partners in Europe and USA. GBiC is part of the Groningen Biomolecular Sciences and Biotechnology Institute (GBB), which houses 13 different research groups and provides access to state-of-the-art research facilities to more than 100 PhD students and 30 faculty members. Since the beginning of 2011, the GBB is housed in a new life-sciences building.

Conditions of employment

The University of Groningen offers a salary of € 2,042 gross per month in the first year up to a maximum of € 2,612 gross per month in the final year. First you will get a temporary position of 1.5 years with the perspective of prolongation with another 2.5 years. After the first year, there will be an evaluation on the perspectives of the successful completion of the PhD thesis within the next three years. If these perspectives are poor, the contract may not be renewed. A main objective of the position is the publication of a number of research articles in peer-reviewed scientific journals, which together will form the basis of the thesis leading to the granting of the PhD degree (Dr.) at the University of Groningen.

How to apply

Please send the letter in English language, including a personal motivation (important!). Your curriculum vitae, the names and addresses of three referees (including telephone number and e-mail address) in just 1 file to gbic@rug.nl. The position will be open until a suitable candidate has been selected.

Information

For information you can contact:

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Prof. R.C. Jansen, r.c.jansen@rug.nl

Groningen Bioinformatics Centre