Three-year PhD position: Development of integrative data analysis methods and data visualizations tools to identify clinically relevant molecular changes in prostate cancer: a systems biology approach

We hereby invite applications for a 3-year PhD position in bioinformatics with focus on prostate cancer. The position is funded by a grant from the Danish Strategic Research Council from 1st January 2012 to 31st December 2014. The project is in collaboration with CLC bio A/S (Aarhus), Department of Molecular Medicine (MOMA) at Aarhus University Hospital, Skejby, and The Bioinformatics Research Centre (BiRC) at Aarhus University.

Prostate cancer (PC) is the most commonly diagnosed malignancy and the third leading cause of cancer-related death in males in the Western world. The overall aim of our research is to identify novel prognostic biomarkers for prostate cancer. To screen for new markers, we are using next-generation sequencing (NGS) and microarrays to collect both genomic, epigenomic, and transcriptomic data from clinical prostate cancer tissue samples from a large, local PC biobank. Integrated analyses of these data sets require development and application of new bioinformatics tools.

The project focuses on (1) developing bioinformatics tools for visualization of genomic, epigenomic, and transcriptomic data and (2) developing bioinformatics/statistical/computational tools for integrative analysis of multiple data types. We seek to apply cutting-edge bioinformatics and statistical techniques to integrate data into a joint framework and to provide computational efficient implementations.

The successful applicant will join a dynamic and motivated team of researchers, PhD and masters students at MOMA, BiRC and CLC bio. We encourage highly motivated and competent candidates with experience in bioinformatics, computer science, statistics or similar to apply. Experience in several of the above disciplines will be regarded as an advantage, but not a requirement. Experience with biologically motivated projects and collaboration with life scientists will likewise be regarded as an advantage. Good communication skills in spoken and written English are required.

For further information about the position, please contact prof. Torben Falck Ørntoft (Tel: +45 7845 5300; email: orntoft@ki.au.dk) regarding general enquiries or prof. Carsten Wiuf (Tel: +45 2899 2588; email: wiuf@birc.au.dk) regarding bioinformatics related enquiries.

Interested candidates should send their application including a cover letter, curriculum vitae, documentation of education, list of publications, a brief description of research experience and interests, and letter(s) of recommendation by email to secretary Lone Uth (email: lone.uth@ki.au.dk). Please type ”MolPros PhD Application” in e-mail subject line. The application must be written in English and should be submitted as a single pdf file. The application deadline is 12.00 pm on Monday 28th November 2011.

Relevant web links:
MolPros project: http://www.molpros.dk
MOMA: http://www.mdl.dk and http://www.skejby.dk/afdelinger/molekylaer+medicinsk+afdeling
CLC: http://www.clcbio.com/
BiRC: http://www.birc.au.dk and http://users-birc.au.dk/wiuf/