

# PhD fellowship in systems biology

Department of Veterinary Clinical and Animal Sciences Faculty of Health and Medical Sciences University of Copenhagen

Center for non-coding RNA in Technology and Health (RTH), http://rth.dk together with the laboratories of Prof. Lars Juhl Jensen (Novo Nordisk Foundation Center for Protein Research) and Prof. Flemming Pociot at Herlev University hospital has an open PhD position in systems biology for constructing and comparing animal gene association networks to human ones within disease contexts. We are looking for an enthusiastic person to join our team for three years, starting 1 January 2015 or soon thereafter. You will be a hard-working team player and a key person in the project group essential for obtaining successful results. The project is financed by the The Danish Council for Independent Research (FTP, DFF - 4005-00443).

## Background

The use of model animals, such as mouse, pig and monkey is essential in the development of both treatments of human diseases as well as test of drugs. Obviously it is important that genes and gene networks are as similar to human as possible for the specific disease in question. In spite of the many efforts no systematic effort has been made in matching which animal model is the most suitable in a given disease context.

### Job description

Methods to search for various degrees of conservation between human and model animals with respect to a range of features will be developed. These include pathways, gene conservation and gene expression and in all cases include coding as well as non-coding and RNA structured genes and regulatory elements. Adding layers such as disease and tissue associations data for the individual model animals will be compared with human to search which animal best in a given disease context match the corresponding data from human. Thus, the work spans broadly and also involve processing high-throughput data and implementing efficient computational methods for the comparisons.

### **Qualification requirements**

The applicant should hold professional as well as personal skills and qualifications as stated below:

- A completed master degree in systems biology, bioinformatics, computer science or a completed master degree in a similar area
- General background knowledge of biological areas of genome structure, transcriptomes, proteins, genes, pathways
- Strong experience with script languages such as Perl or Python (or similar)
- Strong experience with the Linux/Unix environment and command lines
- Strong experience in at least one of the following programming languages: C, C++ or Java
- Possess good interpersonal skills
- Be excellent in English, writing and speech

In addition to the above, weight will be given to applicants having experience with statistical analyses.

### **Terms of employment**

The PhD fellowships are to be completed in accordance with the Ministerial order on the PhD programme at the universities (PhD order) the Ministry of Science, Technology and Innovation and the Regulations and guidelines for the conferment of the PhD degree by the Faculty. Terms of appointment and payment are in accordance with the agreement between the Danish Ministry of Finance and the Danish Federation of Professional Associations (AC). The starting salary for candidates with an MSc degree will be a minimum of DKK 305.290 (April 2014 level) plus pension contribution, as well as paid holidays after one year. Operating costs such as course fees, project expenses, travel and stays abroad, etc. are subsidized by the project.

### **Place of employment**

RTH is mainly located on the Frederiksberg campus. RTH has many international collaborators and visits to the partners will be part of this PhD. Our research environments are highly international and stimulating. We frequently organize seminars, workshops, PhD summer schools with international speakers and have retreats with our international collaborators.

### Application procedure

Apply by clicking "Apply online" below. Applications - in English - must include:

- Cover Letter applying including your motivation, background and why your skills match the requirements. Max 1 page.
- CV incl. education, research experience, programming skills and other skills relevant for the position.
- Diploma and transcripts of records (BSc and MSc). If the MSc degree is from a foreign university, it must be documented that it is on a level
- equivalent with a Danish MSc
- Other information for consideration, e.g. list of publications (if any).
- Personal Recommendations.

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• A maximum of 3 relevant scientific works (e.g. peer reviewed papers) which the applicant wishes to be included in the assessment.

• If the applicant has another nationality than Danish and does not have English/ American as native language, a TOEFL (+TSE) (minimum score 560 pts. (paper based) or 83 pts. (internet based)) or IELTS (minimum score 6.0 pts.) official certificate is mandatory. If you have not passed this at the time of application, you must include documentation that you have signed up for the test including a statement of the expected date for result.

## Application deadline

The applications must be received latest by Monday, 6 October 2014.

Application received after the closing time will not be considered.

### Questions

For further information about the

• Scientific content, please contact: Professor Jan Gorodkin, e-mail: gorodkin@rth.dk, phone +45 353 34704, +45 353 33578 (direct).

• Application procedure and formalities please contact: Administrative Officer, Marie-Louise Rosenlund, e-mail: mlr@sund.ku.dk, phone: +45 353 32898.

Apply online

Deadline: 6 October 2014

Employer: Department of Veterinary Clinical and Animal Sciences

Homepage: http://ikvh.ku.dk/english/

### SØG STILLINGEN

Københavns Universitet præger aktivt sin samtid gennem fremragende forskning, uddannelse og samarbejde. KU hører til de højest rangerende universiteter i Europa og er Danmarks ældste universitet, grundlagt 1479. I dag omfatter KU 37.000 studerende og 9.000 ansatte tilknyttet seks fakulteter: humaniora, jura, natur- og biovidenskab, samfundsvidenskab, sundhedsvidenskab og teologi.

Kontakt

### Jan Gorodkin

E-mail: gorodkin@rth.dk

Tlf.: 33333578

Info

Ansøgningsfrist: 06-10-2014

Ansættelsesform: Tidsbegrænset periode

Ansættelsesdato: 01-01-2015

Sted: Institut for Klinisk Veterinær og Husdyrvidenskab (SUND)

#### **Relevante links**

http://ikvh.ku.dk/english/

http://healthsciences.ku.dk/phd/

HR & Organisation Københavns Universitet Nørregade 10, Postboks 2177 1017 København K Kontakt: Københavns Universitet ku@ku.dk