PhD fellowship in Computational RNA Biology

Center for non-coding RNA in Technology and Health
Department for Veterinary Clinical and Animal Sciences
Faculty of Health and Medical Sciences
University of Copenhagen

Center for non-coding RNA in Technology and Health
The Center for non-coding RNA in Technology and Health (RTH),
http://rth.dk, applies a multidisciplinary research strategy in the
area of non-coding RNAs (ncRNAs) involving bioinformatics as well
as experimental analyses. The center has an open 3 year PhD
position in Computational RNA Biology, with start 1 DEcember 2013
or soon as possible thereafter.

Background
Noncoding RNAs (ncRNAs) have shown to be a highly abundant class
of genes which play numerous important roles in the cell. NcRNAs
often contain RNA structure which plays a role in function, however,
many RNAs do also function through their interactions to other
ncRNAs.

Job description
The current project involves developing time and memory efficient
algorithms to search for RNA molecules (of which some are genes)
interacting with each other. Doing this on a scale involving a full
genome is non-trivial due to the complexity of computational
algorithms for RNA-RNA interactions. However, by employing
efficient filtering strategies and simplified models this becomes
feasible. A further goal in the project is also to develop efficient
design of interfering RNAs, which subsequently can be used in the
design of knockdown experiments.

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

- A master degree in computational biology, computer science,
  bioinformatics, or similar.
- Strong experience with algorithm development.
- Strong experience with Perl or Python (or similar).
- Strong experience with C or C++.
- Possess good interpersonal skills.
- Be excellent in English, writing and speech.

The following are not formal requirements, but emphasis will be
given to candidates fulfilling these criteria:

- Formal training in suffix arrays.
- General knowledge about RNA structure and folding, RNA
  gene search algorithms, and algorithms for structural
  alignment of RNAs and RNA-RNA interactions.
- Insight in statistics.

Applicants should to the best extend possible emphasize and include
documentation for the skills.

Terms of employment
The position will be filled according to the Agreement between the
Danish Ministry of Finance and the Danish Confederation of
Professional Associations. The post is covered by the Protocol on Job
Structure. The basic annual salary for PhD students starts at DKK
300.000 (approx. Euro 40.500). In addition, the successful

candidate will enter a pension fund scheme 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, close to the centre of Copenhagen. We are an interdisciplinary center with national as well as international collaborators and visits to the partners are organized when necessary. Our research environment is 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 for and detailing your motivation and background for applying (max. one 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.
- 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 doesn´t 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.

The applicant will be assessed according to the Ministry of Science, Technology and Innovation Executive Order no. 284 of 25. April 2008.

Application deadline
The applications must be received **no later than 6 November 2013.** Application received after the closing time will not be considered.

Questions
For further information about the position please contact:

- Scientific content, please contact: Professor Jan Gorodkin, e-mail: gorodkin@rth.dk, phone +45 3533 4704, +45 3533 3578 (direct).
- Application procedure and formalities please contact: Administrative Officer, Marie-Louise Rosenlund, e-mail: mln@sund.ku.dk, phone: +45 3533 2898.

Foreign applicants may find the following links useful: www.ism.ku.dk (International Staff Mobility) and www.workingconditions.ku.dk.

Deadline: 6 November 2013

Employer: Department of Veterinary Clinical and Animal Scienecs, Faculty of Health and Medical Sciences, University of Copenhagen.

[Apply online](#)

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Frist: 06-11-2013
Arbejdsgiver: Det Sundhedsvidenskabelige Fakultet

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