

Position Title / Rank: Assistant/Associate Professor – Computational Biology

College: Ontario Agricultural College

Department/School: Animal Biosciences (ABSC)

Deadline: October 31, 2017 and will continue only if the position is not filled

Position Description: The Department of Animal Biosciences at the University of Guelph invites applications from qualified candidates for a tenure-track (12 months per year) faculty position in Computational Biology applied to Animal Biosciences at either the Assistant or Associate Professor level, depending on the candidate. The successful candidate will be a member of the Department of Animal Biosciences (<http://animalbiosciences.uoguelph.ca/>), which has excellent computing and laboratory facilities, access to national and international databases, access to extensive animal research facilities and close ties with the industry.

This position will support the Canada First Research Excellence Fund (CFREF) *Food From Thought* research project. The goal of this project is to exponentially increase our ability to leverage big data for the benefit of food production and biodiversity at global, landscape and micro scales of research and innovation through strong multidisciplinary research. The *Food From Thought* initiative will integrate and strengthen the University's data management and analysis capabilities across our facilities and our partners, and better support and incubate faculty and student innovations.

The successful candidate should have a PhD in Computational Biology or a related discipline (computer science, applied mathematics, applied biostatistics, bioinformatics, etc.). The candidate should demonstrate expertise in developing and applying computational tools, algorithms and approaches for studying data collected in biological, physiological, nutritional, behavioral, and genetic/genomic research. Particular emphasis is placed on development and application of computational tools, algorithms and approaches for acquiring, storing, organizing, archiving, analyzing, and visualizing data in efficient and innovative ways.

The successful candidate will be expected to develop a strong and innovative research program on information technology solutions and advanced computing to address challenges in animal agriculture and biosciences. The successful candidate is expected to engage in research that complements and collaborates with other

faculty members in the Department and at the University.

A strong peer-reviewed publication record is required. The candidate should show potential for pursuing research funding, both individually and collaboratively. As the successful candidate is also expected to teach, demonstrated experience and clear potential for effective teaching are assets.

Detailed Specifications:

Essential Knowledge, Skills and Experience

- A significant depth and wide range of relevant experience in computational biology and related fields (computing, biostatistics, bioinformatics, development and application of relevant algorithms, bioinformatics, system biology, etc.).
- Experience with machine learning, data storage, management and analysis, computer system architecture and high-performance software implementation.
- Strong understanding of the computational aspects of biostatistics and bioinformatics, including development and application of relevant algorithms and statistics.
- Demonstrated ability in leading development and implementation of novel methods and tools, executing independently developed ideas and carrying out projects in a focused, organized and timely fashion.

Desirable Knowledge, Skills and Experience

- Interest in scientific data management, analysis, and visualization aimed at transferring state-of-the-art techniques into operational use by animal scientists and animal agriculture industry stakeholders.
- Experience in the provision of training courses and/or materials on computational biology and computer programming and development.
- Interest in mathematical biological modeling (stochastic, deterministic) and simulations.
- Interest in monitoring technology such as in situ or remote sensing, as it can be applied to animal bioscience and agriculture.

Personal Attributes

- Ability to work together with different researchers with varying interests and expertise on diverse types of data, analyses, and methodologies.
- Demonstrated ability to clearly and effectively communicate with a wide range of internal and external audiences.

ABSC is a research-intensive department with successful programs

for graduate and undergraduate students. The disciplines in ABSC include: nutrition, physiology, behaviour and welfare, breeding, genetics and genomics, growth and development, and meat science. As part of the Ontario Agricultural College (<https://www.uoguelph.ca/oac/>), ABSC has a long history of achievements in serving the agriculture and agri-food industries within Ontario and beyond.

The University of Guelph (<http://www.uoguelph.ca>) is a top-ranked comprehensive university in Canada with an enrolment of about 23,000 students. It is located in Guelph, Ontario (population of approximately 120,000) and is a one-hour drive west of Toronto, Ontario.

Consideration of applications will begin on November 1, 2017 and will continue only if the position is not filled. The position is available immediately; however the anticipated start date is January 1, 2018. Applicants should submit a curriculum vitae, a statement of research interests and teaching philosophy, and the names of three persons who will serve as references to:

Dr. Jim Squires, Chair
Department of Animal Biosciences
Ontario Agricultural College
University of Guelph, Guelph, ON, N1G 2W1

Alternatively, an electronic application may be submitted to jsquires@uoguelph.ca.

Applicants should arrange for the three letters of reference to be sent under separate cover. All qualified candidates are encouraged to apply, however, Canadian and permanent residents will be given priority.

At the University of Guelph, fostering a [culture of inclusion](#) is an institutional imperative. The University invites and encourages applications from all qualified individuals, including from groups that are traditionally underrepresented in employment, who may contribute to further diversification of our Institution.