

Position Title / Rank: Assistant/Associate Professor – Animal Systems Modelling

College: Ontario Agricultural College

Department/School: Animal Biosciences (ABSC)

Deadline: May 1, 2018 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 Animal Systems Modelling at either the Assistant or Associate Professor level, depending on the candidate. The successful candidate will be a member of the Centre for Nutrition Modelling (CNM) in the Department of Animal Biosciences and contribute to development of simulation models that capture, integrate and valorize data collected from animals under human care in support of decision making and precision livestock management. Activities of the CNM also include nutrient requirement estimation, feed evaluation and formulation, forecasting environmental impacts of animal management practices, and design and analysis of sophisticated experiments (e.g. time course analysis of metabolite dynamics and isotope dilution, robust testing of mechanistic hypotheses about cell, organ and animal function).

Applicants must hold a Ph.D. and have experience in simulation modelling and experimental biology related to animal maintenance, growth, reproduction or lactation. The candidate should be familiar with the theory and practice of physical mathematical representation of animal-related biological systems including herds and flocks, organs and/or cells. The faculty member will establish a research program on the integration of multiple sources of data related to nutrition, physiology, genetics and behaviour of animals in mathematical models for the purpose of improving performance, product quality, animal health and welfare, and/or the natural environment.

The areas of interest and expertise of the candidate may include, but are not limited to, nutrient metabolism, physiological regulation, applied mathematics, or holistic systems biology. Possible areas for study include improved mechanistic descriptions of animal functions and behaviours, strategies for model parameterization, optimization of systems models and model evaluation. 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. The individual will also be responsible for teaching undergraduate and graduate students in nutrition, physiology, genetics and behaviour how to build, test, optimize and use systems models in the field and in research.

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 May 2, 2018 and will continue only if the position is not filled. The position is available immediately; however the anticipated start date is September 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. Canadian citizens and permanent residents will be given priority.

The University of Guelph acknowledges the Attawandaron people on whose traditional territory the University of Guelph resides and

offers our respect to our Anishinaabe, Haudenosaunee and Métis neighbours as we strive to strengthen our relationships with them.

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.