MSc Position in Host Genetics and the Microbiome in Pigs

A 2-year MSc position or 3-PhD position is available in the lab of Dr. Brandon Lillie in the Department of Pathobiology commencing September 1, 2019 or January 1, 2020 on the impact of host genetics on the intestinal microbiome in swine.

The research project is part of a large interprovincial, multidisciplinary project involving the Departments of Pathobiology and Population Medicine at the Ontario Veterinary College, as well as researchers at Universities in other provinces in Canada. The overall project will investigate various aspects of the intestinal microbiome in pigs, including its impact on health and production. The specific project will investigate the impact of genetic variation (e.g. single-nucleotide polymorphisms (SNPs)) in the pig genome on the intestinal microbiome. Over two years, pigs on swine farms across Canada will be sampled throughout their life to characterize the microbiome. Using a novel low-cost SNP-array, pigs will be genotyped for ~54 000 (single nucleotide polymorphisms) and their association with changes in the microbiome and other parameters will be studied. The projects will include a review of existing literature, laboratory work (e.g. DNA extraction, PCR), analysis of genotyping data and other data collected on farms and data produced from sample analysis in other aspects of the project, and use of statistical and epidemiological methods to analyze the data. The project may involve farm visits to obtain samples.

Selection of the successful candidate is based on a combination of academic criteria, relevant interest and experience, referees’ evaluations, and an assessment of the candidate’s career goals and motivation. Review of applications will begin on February 15th, and continue until the position is filled.

Stipend: $21 500 per year plus benefits for 6 semesters (MSc) or 9 semesters (PhD)

A formal application should be submitted to Dr. Lillie or Dr. Vahab Farzan and should include a CV, a copy of undergraduate transcripts and, where applicable, graduate transcripts, names of three references, and a cover letter stating interest in the above-mentioned areas.

Dr. Brandon Lillie  
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University of Guelph  
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Dr. Vahab Farzan  
Adjunct Professor  
Departments of Population Medicine and Pathobiology  
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Inquiries about the research and/or the specific project should be directed to Dr. Lillie or Dr. Farzan.

Further inquiries related to general application procedures can be directed to OVC Graduate Program Services, Department of Pathobiology, University of Guelph, Guelph, Ontario, N1G 2W1, Canada; phone 519-824-4120 ext. 54725; e-mail: pathgrad@uoguelph.ca

The University of Guelph is committed to an Employment Equity Program that includes special measures to achieve diversity among its faculty and staff. We therefore particularly encourage applications from qualified aboriginal Canadians, members of the LGBTQ+ community, women, veterans, persons with disabilities, and members of visible minorities.