

MSc Position in Avian Virology

A 2-year MSc position is available commencing January 2020 in the laboratory of Dr. Leonardo Susta, Department of Pathobiology, at the University of Guelph. The project focuses on determining the molecular basis associated with host restriction of avian bornaviruses, specifically *aquatic bird bornavirus* (ABBV-1). Using RNAseq and RT-qPCR, the project seeks to evaluate differentially regulated genes and pathways in cells lines (in vivo) and tissues (ex vivo) from avian species - including poultry - that show different degrees of susceptibility to infection. Selected genes maybe further investigated through knock-out experiments in cell lines, and evaluation of permissivity to infection.

Avian bornaviruses (ABVs) are emerging pathogens that have been recently detected in an increasing number of avian species. Given the broad host range of ABVs, transmission and establishment of these viruses in poultry species is a possible threat. Assessing the host restriction and pathogenesis of ABVs for poultry species is essential to identify and prioritize the threat that these viruses may pose to the poultry industry.

The program will offer the candidate opportunities to become familiar with classic and molecular virology, cellular biology, transcriptome analysis, and RT-qPCR. The ideal candidate will be a motivated and ambitious team member, with a strong interest for viral pathogenesis and bioinformatics, and will be joining a growing lab with 2 research assistant, one DVSc and one PhD student working in avian diseases. 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. Previous experience with bioinformatics is preferred.

The stipend is \$18,500 / year, guaranteed for 2 years. Additional funds will be sought by the applicant through various scholarships, which may be available through the Ontario Veterinary College or other opportunities, such as Natural Sciences and Engineering Research Council (NSERC), Ontario Graduate Scholarship (OGS), and Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) HQP scholarship. Please contact Jessie Beer (contact information below) for details.

Review of applications will begin immediately, and continue until the position is filled.

Additional information regarding admission requirements and the application process can be found at: <https://graduatestudies.uoguelph.ca>

Further inquiries can be directed to Mrs. Jessie Beer, Graduate Program Assistant, OVC Graduate Program Services, Stewart Building, Population Medicine, Room 2509, 519-824-4120 Ext. 54725; e-mail (pathgrad@uoguelph.ca).

Research inquiries should be directed to Dr. Leonardo Susta (lsusta@uoguelph.ca).