

DVSc in Zoological Medicine Department of Clinical Studies, Ontario Veterinary College and the Toronto Zoo

A three-year Residency/Doctor of Veterinary Science (DVSc) graduate degree program in Zoological Medicine, commencing July 5th, 2021, is offered jointly by the Department of Clinical Studies, Ontario Veterinary College (OVC), University of Guelph and the Toronto Zoo, with funding provided by the Toronto Zoo.

The DVSc program was developed to address: 1) the need for high quality applied clinical experience and training in zoological medicine and 2) the need for training in and experience with clinical research as it relates to the broad discipline of zoological medicine. The DVSc is an interdepartmental graduate degree program and receives strong faculty commitment from all Departments within the OVC. Moreover, this program in zoological medicine provides a broad training in different aspects of zoological medicine with cross-over between companion zoological medicine within a university-based referral zoological medicine service and general zoological medicine within a large zoological institution. The DVSc program involves 9 semesters (3 years) with two thirds of this time for applied clinical training and one third for didactic coursework, and the completion of an applied research project culminating in the defense of a written thesis. Most of the clinical training will take place at the Toronto Zoo. While the DVSc is mainly focused on clinical sciences, it also provides a unique opportunity to train in necropsy and general pathology techniques through a partnership with the Department of Pathobiology at OVC, to learn pathology skills essential to the management of a large collection of animals in a zoological institution. The DVSc program provides rigorous advanced academic preparation in both discipline training and research, and is a unique post-professional doctoral level degree. The applicant should have a strong commitment to clinical research in zoological medicine and when matched will enroll in both full time graduate studies in the Department of Clinical Studies and a residency training program in zoological medicine at the Toronto Zoo and in the OVC Health Science Centre. The residency program is an ACZM-compliant and ECZM (Zoo Health Management)-accredited program. The DVSc student is assigned a faculty advisor who functions as a mentor and is responsible for overall clinical and academic performance evaluation during the 3-year program.

The DVSc will be organized as follows:

- The first 10 months (July 2021 to April 2022) will be based at OVC, University of Guelph. The first 2 months (July/August 2021) will be spent training in gross necropsy, histopathology, and clinical pathology within the Department of Pathobiology. The next two semesters (Fall and Winter 2021 - 8 months) will be spent within the Avian and Exotic Service, Health Sciences Centre, Department of Clinical Studies. During these two semesters, the graduate student will also spend 15-20% of the time at the Toronto Zoo (6 weeks divided in 6 blocks of 1 week). In addition, the graduate student is expected to attend morning avian and exotic clinical rounds, zoological medicine pathology rounds, and other clinical and pathology rounds, as appropriate. The DVSc will be rostered on a regular schedule for out-of-hours duty during their time in the Avian and Exotic Service for no more than 20% of this time.
- The following 26 months (May 2022 to June 2024) will be based at the Toronto Zoo. During that period, the graduate student will also spend 15-20% of the time (20 weeks divided in 5 blocks of 4 weeks) in the Department of Clinical Studies in a combination of research and clinical work within the Avian and Exotic Service. While at the Zoo, the graduate student is expected to follow up on morbidity and mortality cases submitted to pathologists within the Department of Pathobiology.

The Toronto Zoo houses approximately 4,500 specimens representing almost 450 species, including invertebrates and fish, in extensive indoor and outdoor habitats on a 700-acre site. The Zoo's Wildlife Health Centre, a \$19.1 million, state-of-the-art facility, was completed in 2017. In total, it is approximately 50,000 square feet in size and houses conservation breeding programs, a Pathology Facility, and an expansive Quarantine Wing. The building includes treatment, surgery, and diagnostic imaging rooms, a clinical laboratory, various multi-purpose animal wards, and laboratory space for reproductive programs and research. Of particular note is the "Windows on

Wildlife Science Gallery”, where visitors have a close-up, behind-the-scenes view of the exceptional medical care provided to the Zoo’s animals, and where reproductive programs and research can be showcased. Two ACZM diplomates are on site, one of whom is also an ECZM diplomate (Zoo Health Management).

The Avian and Exotic Service sees over 1500 appointments per year. The caseload consists of about 50% small companion mammals (rabbits, ferrets, rodents, etc.), 40% birds (parrots, birds of prey, etc.), and 10% reptiles, with occasional fish and invertebrates. The Avian and Exotic Service is housed within the OVC Health Sciences Centre, a large university-based referral centre with all major clinical disciplines and state-of-the art equipment. The service includes two clinicians, three residents (not including this one), one intern, and one veterinary technician. The two clinicians are both ACZM and ECZM diplomates (one Avian and one Zoo Health Management).

The DVSc program also provides a unique opportunity to conduct clinical research. A research program with partial funding from the Toronto Zoo will be assigned to the graduate student. Each DVSc student has a graduate advisory committee chaired by the faculty advisor. Committee members are selected from the Department of Clinical Studies and other departments to act as consultants and advisors, providing support for the research and formal course work components of the program. The research is written as a thesis in a publication-ready format which is defended to an examination committee. The examination committee includes an external examiner, who is a recognized authority in the discipline or field of study from outside the university. The research projects are designed such that the resulting thesis demonstrates scholarship, critical judgment and provides a significant contribution to the knowledge in the field investigated. Accordingly, applicants should have a strong commitment to clinical research in zoological medicine. The students will enroll in graduate courses during the program, mainly during the first 8 months of the program and the program also includes a qualifying examination in the area of zoological medicine, usually held in the 6th semester. Since the DVSc program consists of two distinct elements; clinical training and graduate training, students are expected to successfully complete both elements of the program.

As per ACZM guidelines for compliant programs, the resident will be given the required time to study and publish manuscripts to prepare for credentialing and the ACZM examinations. Graduate courses will also be offered to help prepare for the ACZM examination. ECZM (Zoo Health Management) credentialing is also available on a case-by-case basis.

The selected candidate for the DVSc program in Zoological medicine must be accepted by the Office of Graduate Studies of the University of Guelph and the Ontario Veterinary College's Interdepartmental DVSc committee in order to commence the program. Candidates must also be a Canadian Citizen, a permanent resident or hold a valid study permit. For admission to the program applicants are required: to be graduates of high standing from a recognized veterinary college (DVM or equivalent qualification) with an overall Ontario Equivalent average of 'B' (73% minimum) or minimum GPA of 3.0/4.0, have a minimum of one-year previous experience as a veterinary clinician (internship or comparable experience), and be eligible for a General or Educational License to practice veterinary medicine in the Province of Ontario. Applicants need not be National Examining Board (NEB) certified to qualify for this position; hence graduate of schools not accredited by the American Veterinary Medical Association may apply. Initial license application and examination fees (approx. \$310.75 CDN.) are the responsibility of the applicant. The annual license fee is paid by the OVC Health Sciences Centre for the first year and by the Toronto Zoo for the following 2 years.

Selection of the successful applicant 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. Internet-facilitated or telephone interviews will be conducted.

We are now accepting applications for the next opening, which commences July 2021. The deadline for application is Sunday, January 3rd, 11:59pm. A final decision will be made, and all candidates informed of the results prior to the final day to withdraw from the VIRMP program (i.e., prior to February 12th, 2021).

A yearly stipend comparable to other University of Guelph DVSc students will be provided by the Toronto Zoo, through the University of Guelph. The annual salary for the first year will be CAD \$44,964. Based on Fall 2020 and Winter 2021 data, tuition and ancillary fees are currently \$9,033.57 CDN/annum for Canadians and Permanent Residents; and \$24,884.55 CDN/annum for international students, including US citizens (this includes single person health coverage fee). Graduate student fees are an income-tax deductible expense in Canada. International DVSc students with an Ontario equivalent admission average of greater than 73%, which is a minimum B (Ontario equivalent) letter grade, may be eligible for the International Doctoral Tuition Scholarship (IDTS), which is currently \$12,500 annual, to reduce international tuition. You may view eligibility criteria here: <https://www.uoguelph.ca/graduatestudies/faculty-staff/scholarships-and-awards-administrative-guidelines>.

Additionally, please find information at the links included on Calculating Your Admission Average: <https://graduatestudies.uoguelph.ca/future/apply/calculate> and the International Credential Guidelines: <https://graduatestudies.uoguelph.ca/future/international/credential>.

Health insurance for Canadians/Permanent Residents can be arranged with your home province. International students pay approximately \$720 CDN/annum in the fall of the year (for single person coverage; additional coverage for families is available). You will be given 10 vacation days/year plus 5 days/year to attend specific meetings, and seminars as part of his/her academic program. For health insurance for Canadian residents who live in provinces other than Ontario, success applicants will be required to contact their Provincial Health Insurance Plan and advise them they are moving to Ontario. There will likely be a three (3) month carry-over to cover the three (3) month waiting period following submission of an application to the Ontario Health Insurance Plan.

The Toronto Zoo will cover travel expenses (accommodation / transport up to reasonable amount) associated with the weeks spent away from where the student is primarily based (i.e., the 6 weeks spent at the zoo during OVC-based time and the 20 weeks spent at the OVC during zoo-based time).

Requirements for Application:

1. Personal statement (cover letter).
2. Curriculum vitae.
3. Three (3) letters of reference.
 - Suggestions of persons supplying letters: clinical professors and practicing veterinarians who are familiar with the performance of the candidate.
4. Official transcripts of university performance.
5. Minimum GPA of 73% ("B") or 3.0 out of 4.0 in a DVM program.
6. Canadian citizen, permanent resident, or study permit.
7. Acceptance by the Office of Graduate Studies of the University of Guelph and licensure by College of Veterinarians of Ontario after being matched.
8. Proof of English proficiency: <https://www.uoguelph.ca/graduatestudies/future/international/English>.

Application instructions can be located on the University of Guelph Graduate Studies website here: <https://graduatestudies.uoguelph.ca/future/applying-guelph>. If you have any questions about the application process, please email csgrad@uoguelph.ca or Dr. Hugues Beaufrère: beaufrer@uoguelph.ca.

The Ontario Veterinary College is a part of the University of Guelph, which has a full-time graduate and undergraduate student enrollment of approximately 29,000. The City of Guelph has a population of more than 135,000 and is situated 80km (50 miles) west of Toronto. Guelph is rich in culture, architecture, and parks with a variety of recreation and leisure opportunities. Hence, Guelph is ranked among the top ten places to live in Canada. As a companion animal referral centre, the College is exceptionally well situated with over 6 million people living within a 90 minute drive of the University.