

**Information for the Graduate Student/Resident  
Veterinary Ophthalmology  
2013-2016**

**I. Description of the Program**

- A. The graduate student/residency program is a three year program which allows the student to develop competence and expertise in the specialty of veterinary ophthalmology.
- B. The program will prepare the student for credentialing for the American College of Veterinary Ophthalmology (ACVO). It is expected that the graduate student will credential for the ACVO by the third year of their residency and take the certifying examination of the ACVO that year.
- C. The major portion of the program is clinical training with an emphasis on clinical research, undergraduate teaching program, and scientific writing. The graduate student will be expected to interact with small, large, and exotic animal specialists in the Veterinary Teaching Hospital and human ophthalmologists at the City Hospital with subspecialty training in pediatrics, glaucoma, cornea, and retinal diseases. The student will have ready access to the veterinary and medical library.
- D. The graduate student/resident must enrol with the College of Graduate Studies and Research and complete a Master of Veterinary Science degree. This will involve course work and a research project as outlined below.

**II. Clinical Duties**

The graduate student residency program will entail participation in the clinical service and undergraduate student teaching in the small and large animal teaching hospital. Clinical duties will be approximately 65% in the first year and 75% in the second and third year. Non-clinical time will occupy approximately 35% of the first year, and 25% of the second and third year. It is during this time that the graduate student will be expected to pursue research, publication, and teaching.

The resident will be responsible for all hospitalized cases and the emergency duty will be shared with faculty members on approximately a 50/50 basis. In regards to the emergency duty, early in the program (1-2.5 yrs.) the resident will be assisted in all emergencies while later in the program emergencies may be handled alone as the resident's expertise develops. Generally all cases seen by the graduate student during the 2.5 years of the residency will also be examined by the faculty ophthalmologist. During the latter part of the final year of the residency, the graduate student may become solely responsible for specific cases. The residency/graduate program will closely mirror the recommendations of the American College of Veterinary Ophthalmology. A surgical log of all ophthalmic cases must be maintained and the basic principles of microsurgery will be taught gradually over the three year program.

The resident will be introduced to the basic principles including eyelid repairs and enucleations initially, and then will proceed to corneal surgery, and finally, in the later stages of the residency, intraocular surgery. Numerous cadaver surgeries should be scheduled and completed by the resident during the early stages of the residency to ensure competence in anterior and posterior intraocular surgery before attempting them on clinical cases. Ultrasonography, CAT scans, and magnetic resonance imaging is to be observed by the resident and all diagnoses discussed with the radiologist or advanced imaging specialist at the time they are being completed. Contrast imaging techniques again are generally completed in collaboration with the imaging specialists. Referral letters will be dictated and signed by the faculty member and the graduate student/resident.

### **III. Teaching**

The graduate student will participate in clinical teaching of third and fourth year undergraduate students and interns. In addition, the graduate student will be expected to play an active role in teaching third year ophthalmology laboratories and participate in didactic lectures when appropriate.

Evaluations of undergraduate students will be completed in conjunction with the faculty member. The graduate/student resident will be expected to take an active role during the last year of the residency in preparing lectures, creating and marking examinations, critiquing the undergraduate ophthalmology program and making suggestions for improvements. The graduate student/resident will be expected to take an active role in the weekly ocular histopathology rounds with the pathology graduate students. In addition the graduate student/resident will be expected to present a minimum of one clinical case or research project per year with relevance to human ophthalmology at the regular ophthalmology rounds on Friday mornings at City Hospital.

### **IV. Credentialing, Publishing Requirements**

During the course of the residency the graduate student/resident will be responsible for writing at least one case report or a series of cases and present their research or a case report at the annual meeting of the American College of Veterinary Ophthalmologists. The resident must attend and complete either the core science course for veterinary ophthalmologists which is held on an alternating year basis or the human ophthalmology core science course at Waterville, Maine. Limited funds may be available from the University and the Canadian Department to subsidize and offset part of the tuition and travel. These are important courses in the core science of ophthalmology and the graduate student should be prepared to budget accordingly for these 4-8 week courses that will be available once during the three year residency.

### **V. Coursework**

Each graduate student will be enrolled in the Master of Veterinary Science (MVSc) Degree program. The requirements for this degree include a research project with a

written thesis and graduate classes. Application for admission to the College of Graduate Studies and Research should be made upon arrival at the WCVN. The graduate student must register in their courses by early September. Consultation with faculty and other graduate students regarding which courses to take will occur prior to enrolling in the program. Suggested courses include:

Large Animal Ophthalmology  
Small Animal Ophthalmology  
Ocular Pathology  
An Experimental Design and Statistics Course  
Others as requested by the Advisory Committee

## **VI. Research Project**

A research project will be assigned to the graduate student upon entering into the graduate program and in the first 2 months the graduate student will review the previously funded project and the literature applicable to the project. During the next ten months the graduate student will be responsible for scheduling time to allow completion of this research project. The following year will entail writing a scientific paper, and completing a presentation at the annual meeting of the American College of Veterinary Ophthalmology. It is essential that the research project be addressed early in the residency and completed prior to the beginning of the third year to allow for delays that commonly occur during research or clinical trials. The graduate student will complete the literature search and may alter the design of the research project with the permission of the supervisor and the graduate committee. A research grant proposal will be written together with the faculty supervisor during the third year of their residency to ensure funding for future projects and graduate students. This will ensure that the graduate student is exposed to research grant writing and the guidelines of granting agencies. Again, analysis of data, writing the thesis and presentation should be completed during the second year of the residency to ensure adequate time for publication. The graduate student/resident will be expected to present the results of their research in a seminar to the faculty of the WCVN near the end of their program. On that same day they will be expected to defend their project and be examined in general ophthalmology by an examination committee.

## **VII. Evaluation of Graduate Students**

Written and oral evaluations to the graduate student/resident will be completed on a six month basis during the residency program. These evaluations will be subjectively completed by faculty members in the varied departments where the graduate student works and will be collated by the supervisor and provided in an oral and written form to guide the graduate student through the program.

## **VIII. Miscellaneous**

All graduate student residents are allowed three weeks of vacation time each year

which must be taken out of the academic time in the program. Approximately 16 weeks in the first year and 12 weeks in the second and third year are available for academic time. Academic time is allotted to allow the graduate students to complete a research project, to pursue/collect and become familiar with the world of ophthalmology literature, write papers for publication, and prepare for the ACVO examinations. Self-funded externships in areas of special interest may be approved by the advisory committee. Scientific meetings such as the ACVO annual general meeting must be attended during vacation or academic time. Some assistance for travel may be available within the department. The graduate student/resident will be expected to complete a schedule of their academic and vacation time each year no later than August 1 of each year of the residency. Changes to this schedule can only be made with approval of the faculty advisor. Stationery supplies are available for the graduate students through the Department of Small Animal Clinical Sciences. The department secretary will, when possible, provide some assistance for preparation of teaching-related handouts. Graduate students will be issued a personal number for use of the Xerox machine in the Department. The maximum allowable number per year is 2000 copies per resident. Given the volume of the ophthalmology literature that is required for preparation for the certifying examination of the ACVO the resident must personally budget additional funds for photocopying. The graduate student/resident will be expected to follow the requirements of the American College of Veterinary Ophthalmology and provide useful evaluations of the ophthalmology residency and discussion of these with the faculty member prior to completion of the program.

The graduate student will be responsible for tuition fees. Saskatchewan Veterinary Medical Association licensing and self funding of externships are the responsibility of the graduate student.