The veterinary biomedical sciences (VBS) graduate program is a multidisciplinary program intended to provide students a broad base of research areas to address individual student interests. The program is administered within the Center for Veterinary Health Sciences but may involve faculty from other colleges. Programs of research and study leading to the degrees of Master of Science and Doctor of Philosophy are available within the broad areas of focus: infectious diseases, pathobiology, and physiological sciences. The program is designed to prepare individuals for careers in teaching and research, and specialization is possible within each area dependent upon student and faculty interests and available funding.

Current areas of research focus include molecular, cell and developmental biology, clinical sciences (including laser applications and oncology); infectious and parasitic diseases (including vector-borne diseases, bacterial and viral diseases in wild and domestic animals); pathobiology; and toxicology. Faculty and their specific areas of interest are available through the graduate coordinator (vbsc@okstate.edu) or online at https://cvhs.okstate.edu/veterinary-biomedical-sciences-graduate-program.

Prerequisites
Candidates for admission must possess a bachelor’s degree or equivalent, with a background in biological or physical sciences. Although there are no absolute performance level requirements, applicants with quantitative GRE scores at the 75th percentile or greater and GPAs of 3.0 (out of 4.0) or greater, will receive strongest consideration.

The Master of Science Degree
The MS may be earned with 30 credit hours beyond a bachelor’s degree or 21 hours beyond the DVM degree, including not more than six credit hours for the thesis. The plan of study is designed to meet the student’s needs and interests and typically includes two credits of seminar, one course in statistics, and courses in molecular or cell biology and pathophysiology. The student must also pass a final oral examination covering the thesis and related course work.

The Doctor of Philosophy Degree
The PhD requires a minimum of 60 credit hours beyond the bachelor’s degree or DVM degree, including up to 45 credit hours for research and dissertation. The plan of study is designed to meet the student’s needs and interests and typically includes courses in cell and molecular biology, pathophysiology, statistics and seminar. Written and oral qualifying examinations are required. Students must prepare a research proposal and complete and defend a dissertation based on original research.

Application Procedure
Applications are made to the Graduate College (http://gradcollege.okstate.edu/apply) and are accepted at any time; however, all documents should be received prior to March 1st for admission to the fall semester. Applicants are required to submit official transcripts of all college-level work and scores for the GRE general test. International applicants are required to take an English proficiency exam TOEFL or equivalent exam, unless a student is from a country where English is a first language. For students seeking graduate teaching assistantships, a score of 22 or greater on speaking part of the internet-based TOEFL (iBT) is required. In addition, the applicant will submit a statement of purpose stating their preparation for graduate study as well as how earning a graduate degree will further their educational and career goals and will have three persons knowledgeable of their preparation for graduate study write and submit letters of reference.

Information about faculty research interests is available upon request to the graduate coordinator (vbsc@okstate.edu). After acceptance to the graduate program, students select a major professor and an advisory committee and develop a plan of study consistent with the VBS graduate program requirements and subject to approval of the dean of the Graduate College.

Assistantships
A limited number of graduate teaching and research assistantships are available.

Internship and Residency Programs
Internships and residency programs in clinical medicine and surgery are offered through the Department of Veterinary Clinical Sciences. Residency programs in pathology are offered through the Department of Veterinary Pathobiology.

Faculty
Pamela Lovern, PhD—Associate Professor and Coordinator of Graduate Studies