BIOMEDICAL SCIENCES GRADUATE PROGRAM

GENERAL INFORMATION

The Texas A&M University College of Veterinary Medicine & Biomedical Sciences (CVMBS) offers **Doctor of Philosophy (PhD)** & **Master of Science (MS)** degree programs in **Biomedical Sciences (BIMS):**

Doctor of Philosophy (PhD) & Master of Science (MS) Thesis Option:
These degree programs are designed for students seeking advanced study in biomedical sciences for the purpose of developing skills related to critical inquiry, independent research, and teaching. The PhD program is designed for students who demonstrate the potential to perform original research under guidance and have the goal of pursuing careers in research and/or teaching. Students are required to select either ***Biomedical Genomics & Bioinformatics***; ***Diagnostics & Therapeutics***; ***Infection, Immunity, & Epidemiology***; or ***Physiology & Developmental Biology*** for their curricular training track.

Master of Science (MS) Non-Thesis Option:
This degree program is designed for students seeking advanced study in biomedical sciences and related subject areas. Students commonly aim to pursue a professional program of study in one of the various fields of medicine or gain advanced learning before moving forward in a field of biomedical-related research.

Please visit vetmed.tamu.edu/graduate-programs for more information about these graduate programs, including required coursework, or contact an academic advisor at resgrad@cvm.tamu.edu.

There are also interdisciplinary programs with close ties to the CVMBS, such as **Genetics**, **Neuroscience**, and **Toxicology**, as well as the **Veterinary Epidemiology & Public Health** and **Science & Technology Journalism** programs in the CVMBS, through which students may pursue a master's or doctoral degree.

ADMISSIONS INFORMATION

To apply for admission to the BIMS graduate degree programs, prospective students must have a minimum of a baccalaureate degree (or its equivalent) awarded from an accredited institution of higher education prior to beginning the first semester of coursework for the degree program. The typical competitive candidate will have a minimum 3.0 cumulative GPA in all previous degrees and/or demonstrate success in previous, related coursework and research experience. Scholarships and fellowships are available for competitive candidates.

More information about the admissions process, scholarships, and fellowships can be found here: ***vetmed.tamu.edu/graduate-programs***.

CURRICULAR TRAINING TRACKS

Biomedical Genomics & Bioinformatics: Faculty members in this group are engaged in understanding the structure and function of genomes and the evolutionary relationships between genes and proteins. In order to understand these relationships, genomics investigators utilize computer science, mathematics, statistics, and engineering principles to interpret genomic data. Areas of research include comparative, functional, conservation, population, and computational genomics, phylogenomics, genome evolution, immunogenomics, and epigenomics.

Diagnostics & Therapeutics: Faculty members in this group are engaged in research that involves the study of spontaneous disease in client-owned animals, research in experimental animals that can be directly applied to patients with spontaneous disease, the development of novel diagnostic tests, and the development of new therapeutic strategies. Areas of research include clinical trials in neurology, oncology, cardiology, orthopedics/stem cells, and internal medicine, as well as diagnostics and therapeutics for gastrointestinal, orthopedic/regenerative medicine, and reproductive disorders.

Infection, Immunity & Epidemiology: Faculty members in this group are actively engaged in research that integrates a multidisciplinary approach to epidemiology related to infection and immunity. This involves studying the frequency, distribution, and control of diseases in addition to mechanistic studies of microorganisms and disease, host-pathogen interactions, the immune system, and immunological disorders. Areas of research include infectious and zoonotic diseases; vaccines; adjuvants and diagnostics development; and comparative, developmental and clinical aspects of immunology, bacteriology, virology, parasitology, and pathology.

Physiology & Developmental Biology: Faculty members in this group study the functions of body systems and how specific genes govern differentiation of cells, tissues, and organs with unique structures and functions. Both disciplines require a firm foundation of mathematics, chemistry, physics, biophysics, and both molecular and cellular biology. Areas of research include toxicology, neuroscience, reproductive biology, cardiovascular sciences, regenerative medicine, pharmacology, developmental biology, epigenetics, and cell biology.

PROFESSIONAL DEVELOPMENT OPPORTUNITIES

The CVMBS offers a variety of professional development opportunities for its graduate students. These include workshops, such as scientific writing, grant writing, public speaking, teamwork, communication, and conflict management. Additionally, the college offers a number of experiential training programs that allow students to gain specific skills through hands-on training in well-known laboratories and in high-caliber training courses. The CVMBS also exposes its trainees to a variety of different career paths through seminars and career panels with former graduates of the college.

PLEASE CONTACT US FOR MORE INFORMATION.

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