Many Species. One Medicine.™

the Wide World of Veterinary Medicine

Discover

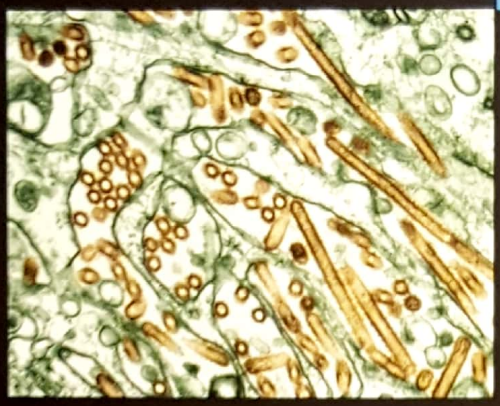
ADMISSIONS 2007–2009

Penn Veterinary Medicine

UNIVERSITY of PENNSYLVANIA

Biomedical Research

Improve the health of humans and animals through drug discovery and basic cell and molecular studies in the biotechnology and pharmaceutical fields.



Pathobiology

Conduct fundamental research and design new strategies to treat and control cancer, and parasitic and other infectious diseases in animals and humans.

Equine Medicine and Surgery

Provide a full range of equine care, including sports medicine and imaging, orthopaedics, surgery, lameness studies, reproduction and critical care.

Vets do more than you ever imagined!

Aquatic Medicine

Direct animal health and husbandry at aquariums and fish farms, rescue and rehabilitate marine mammals, conduct aquatic and marine research.

Public Health

Protect the health of animals and humans through education, surveillance and prevention of zoonotic diseases, bioterrorism and other public health threats.

Wildlife Conservation

Protect wildlife through research, education, and management of wildlife and the wild lands they inhabit.

Environmental Protection

Maintain a safe environment for animals and humans through ecological risk assessment, diagnosis and treatment, as well as preparation and response to agriterrorism, bioterrorism, disease outbreaks and natural disasters.

Agriculture

Work with livestock, poultry, aquaculture and environmental industries to improve the health, productivity and quantity of food animals.

Discover your place

At Penn's School of Veterinary Medicine, you'll learn about every aspect of veterinary medicine and discover the multitude of career opportunities that are open to you.

Penn Vet's two campuses, urban and rural, offer you learning experiences in virtually the entire range of veterinary medicine from small species to large animals to aquatic life. Our two internationally renowned hospitals have some of the largest caseloads of any veterinary teaching hospitals in the world, providing care for companion, sport, agriculture, avian and exotic animals. Our rural campus at New Bolton Center is home to a premier equine clinic in North America.

As part of the University of Pennsylvania, Penn Vet is a key partner in one of the world's great biomedical research and teaching centers. This enhances your options for learning and participation in cutting-edge research in countless disciplines. One of the only veterinary schools that is closely integrated with a medical school, Penn Vet provides rich opportunities for students to discover how veterinary medicine impacts human lives as well as animals. This essential interrelationship between animal health and human health—"Many Species, One Medicine™"—is the core of our teaching tradition.

Penn Vet's dedicated and distinguished faculty members bring a diverse range of academic backgrounds and unique perspectives to the classroom and clinic that will broaden your view of veterinary medicine.

So open your mind and prepare to discover your place amid more exciting veterinary spheres and specialties than you ever imagined!

Dean Joan Hendricks, VMD, PhD, with first-year students and a friend.

About Penn Vet

As part of the University of Pennsylvania, the School is a major player in one of the world's great biomedical centers.

Our presence in Philadelphia gives Penn Vet the advantage of an impressive quantity of patients. Because we are located in a metropolis with millions of people—and their millions of animals—we never lack patients. Our urban clinic, the Matthew J. Ryan Veterinary Hospital, in the heart of the University City section of Philadelphia, draws an enormous caseload of varied small species. And our pastoral New Bolton Center, in Kennett Square, Chester County, 32 miles southwest of Philadelphia, attracts many assorted large animals. During the 2004–2005 academic year we saw approximately 28,000 small animals and more than 6,000 large animals. In addition, the Widener Hospital's Field Service sees more than 19,000 animals a year.

The innovative core/elective curriculum allows students limitless choices. Seniors can select one of five distinct clinical areas: small animal, mixed (small and large) animal, large animal, equine and food animal medicine. We also recently added a shelter animal medicine course to the curriculum.

Philadelphia is the fifth-largest city in the United States. It offers professional sports, art museums and galleries, restaurants representing every imaginable cuisine—and it's all here for your enjoyment. Philadelphia, in the heart of the New York-to-Washington corridor, enjoys a vibrant, lively atmosphere distinctly its own.

Facts & Figures

Established in 1884, Penn Vet is the only veterinary school developed in association with a medical school, and is one of only four private veterinary schools in the nation. Our mission is teaching, healing and investigation.

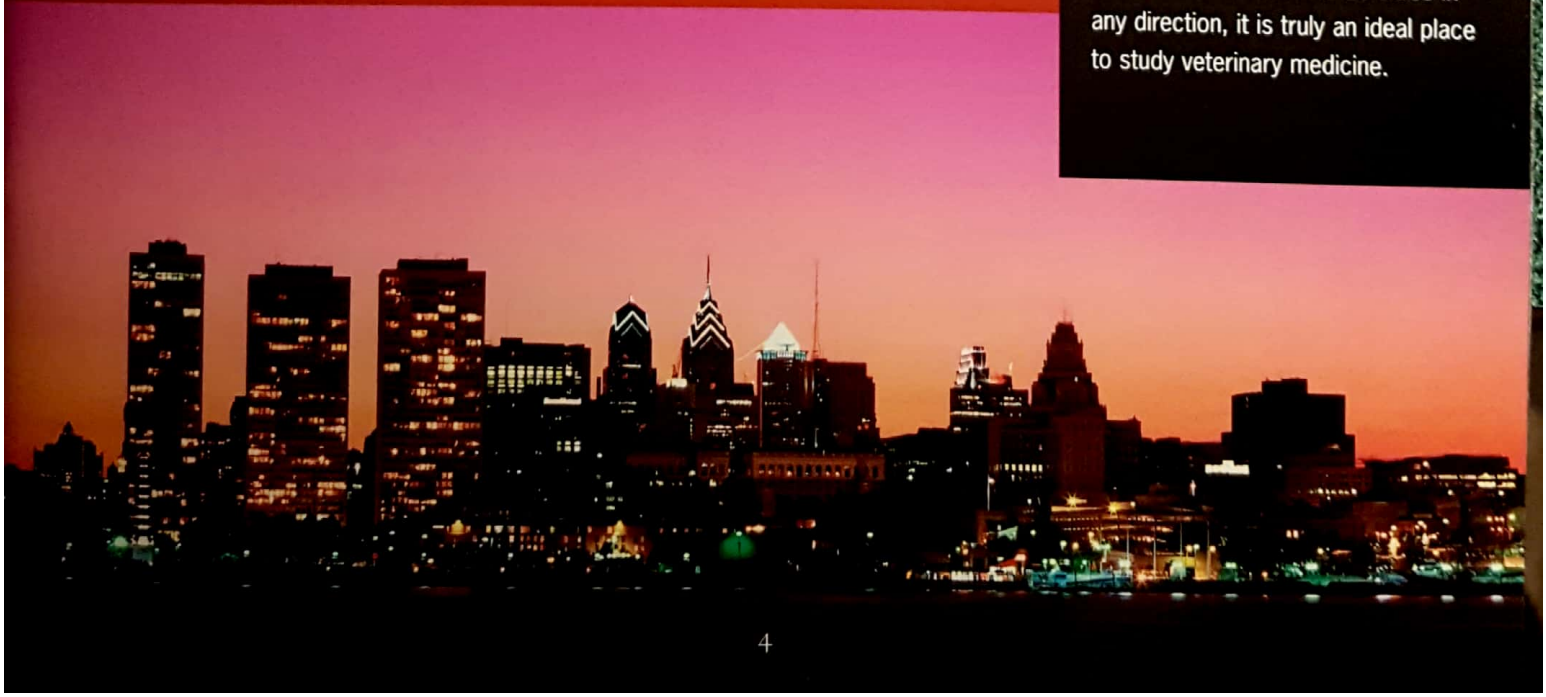
The first class, 10 men, graduated in 1887. Since then, more than 6,000 veterinarians have graduated from Penn. The 2006 graduating class numbered 112, of whom 94 were women and 18 were men.

During the academic year 2005–2006:

- The faculty numbered 130; currently we have 18 endowed professorships, more than any other veterinary school.
- We received more than $27.2 million in research funds from external sources, enabling us to pursue more than 142 projects.
- Ryan Veterinary Hospital counted more than 28,000 patient visits, including 13,000 through the Emergency Service.

Penn Vet plays an important role in veterinary medicine, expanding the frontiers of disease diagnosis and treatment. Our historical philosophy of Many Species, One Medicine™, spurred the development of veterinary medical specialties. Our emphasis on basic and comparative investigation to learn about disease development and processes contributes to improved diagnosis and treatment of animals' diseases.

An Ideal Place to Study
Philadelphia provides an incredibly diverse patient population. And with abundant rural farmland 25 miles in any direction, it is truly an ideal place to study veterinary medicine.



The integration of developing nations into the world economy and the advancement of medicine place a lifetime of curiosity, challenge, interest and reward before the modern veterinarian.

Our Role in Veterinary Medicine Today

Our volunteer blood donor program includes more than 3,000 dogs, who visit our Bloodmobile at blood drives.

Penn Vet leads in the practice of veterinary medicine in the nation and the world. We pioneered the development of veterinary clinical investigation, comparative medicine and the development of new fields, such as aquatic-animal medicine and animal/human interactions.

We have successfully integrated scholarship and research into all aspects of veterinary medical education, and we supply high numbers of faculty nationwide to veterinary schools and other medical institutions.

We have made continuous and significant contributions to basic and clinical investigation and have trained large numbers of students and faculty as biomedical research scientists. We have led the way in curriculum development, as exemplified by our unique core/elective curriculum.

We maintain a professional and loyal relationship with our alumni. We preserve strong bonds with important agricultural associations, humane societies, dog breeders and other organizations and individuals concerned with animals and animal welfare.

Our Center for the Interaction of Animals and Society has increased the awareness of the social, behavioral and cultural interchange between

animals and human beings for veterinary professionals and others.

Having both a rural and an urban campus gives us a unique perspective on biological disciplines. We enjoy a special role within the University of Pennsylvania, interacting in significant ways with the undergraduate College of Arts and Sciences and the Schools of Medicine, Dental Medicine, Nursing and Social Policy and Practice.

Penn Vet's pre-eminent position as a national and world leader in education, investigation and veterinary care is based on many factors, including:

- Our world-renowned hospitals have some of the largest caseloads of any veterinary teaching hospitals associated with a university.
- Our investigators rank in the top three for institutions receiving individual grants from the National Institutes of Health. Papers by Penn Vet's faculty are frequently referenced in the literature by fellow scientists in areas including cell biology, immunobiology, reproductive biology and comparative genetics.
- Clinical programs provide an exceptional learning experience to students.

PennProfile

Bryan Cherry, VMD '97, PhD '03

Organization: New York State Department of Health

Title: Deputy State Public Health Veterinarian

Hometown: Bronx, NY (original); Niskayuna, NY (current)

What I do: Zoonotic disease education and awareness, surveillance and prevention; bioterrorism education, surveillance and preparedness.

Best thing about my work: Never a dull moment. With 57 counties' worth of people and animals, the questions coming in daily range from truly serious issues to incidents so absurd you couldn't make them up!

Most challenging part of my work: Getting multiple state, federal and local agencies on the same page during disease investigations.

Other cool jobs I've had: Public Health Veterinarian for the New York City Department of Health and Mental Hygiene.

Achievement I'm most proud of: I am excited to have played an integral role in starting a new era of zoonotic disease surveillance and prevention by helping to write the New York City Health Code law that requires reporting of zoonotic diseases when detected in animals.

Person in my field I most admire and why: Hans Zinsser, a microbiologist in the early 20th century who was more than 50 years ahead of his time in recognizing that animals and animal-source diseases play an important role in human health.

What I liked best about Penn: The amount of time and attention spent on treating students as people and addressing their needs.

Most valuable lesson I learned at Penn: Never trust what you read at face value, even in books and scientific journals. Just because it was published once (or even more) doesn't mean it was correct!

My most surprising discovery about veterinary medicine: How big a role veterinary medicine can (and should!) play in human public health.

Penn**Faculty**

Peter Dodson, PhD
Professor of Anatomy

Veterinary gross anatomy is a wonderful subject. It's very hands-on and the students know that it is vitally important to their profession. They enjoy learning actively in the lab, often in small groups of three or four, and I assist by interacting with them. It's a very intimate and rewarding form of teaching.

I bring a unique perspective to the subject because my degrees are in geology and I study dinosaurs. I'm very excited about evolution and paleobiology and my teaching is very comparative by nature. Students learn that what all mammals have in common is much more important than the small number of differences that divide them.

Knowing that learning is a lifelong process, we give students the tools to learn rather than a closed body of knowledge.

What Can You Expect?

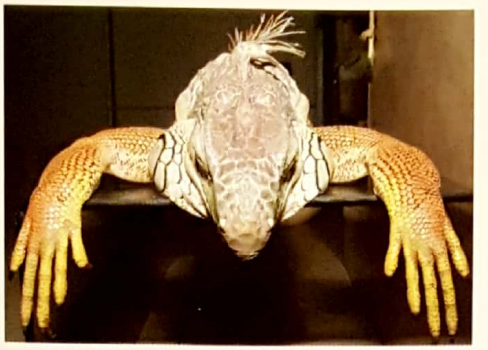
Your classmates will come from widely divergent backgrounds. Ranging in age from 21 to 50, some have left other careers—choreography, television production, bond-trading, law, social work—for the privilege of learning to treat ailing Himalayan cats, schnauzers and llamas. A typical class of 110 students comes from more than 65 undergraduate schools, some in other countries. You can live independently, either on campus or nearby. During your senior year when you rotate at New Bolton Center, you have the option of boarding in the dorm on campus.

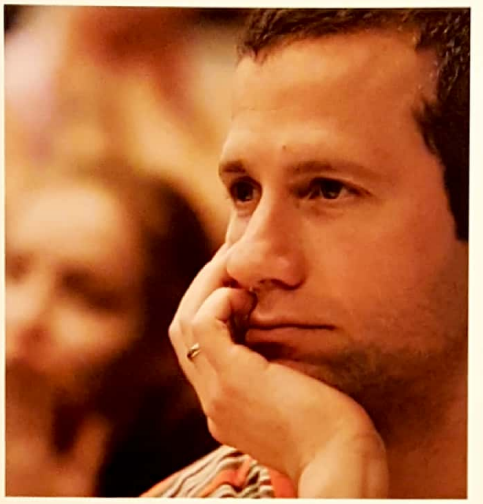
If you wish to work, you can participate in a federal work-study program, or you might find openings in faculty-run research labs. Or, you might find a placement in a clinical setting. If you work in research, you may realize that, in addition to earning money, you are complementing your lectures and gaining skills in critical thinking.

Through our extensive program of internships and residencies, we are educating the veterinary educators of future generations. We have 60 to 65 interns and residents, with whom you can have extensive interaction. Meeting you in clinics, joining you in rounds, teaching you in labs, residents serve as a wonderful resource. You might participate in extracurricular activities or join one of the 21 committees or 16 clubs, from the yearbook to the Student Chapter of the American Veterinary Medical Association or first-year hoagie committee.

At the University of Pennsylvania, graduate programs focus on disciplines rather than on schools. Your instructors may be based in other colleges within the University, or at the Wistar Institute, the Veterans Administration Hospital, Fox Chase Cancer Center, Children's Hospital of Philadelphia or Children's Seashore House. Because they are not traditionally trained veterinarians, they enhance the School's atmosphere of open education. They help open your eyes to the possibilities around you—on the university campus and far beyond.

Students participate in a special session about service dogs.





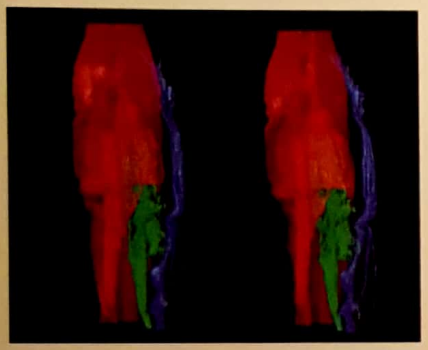
Lillian R. Aronson, VMD '92 Dipl. ACVS

Assistant Professor of Surgery

Many people don't realize how much veterinary medicine has advanced. We now have a lot of specialties very similar to those in human medicine and we can offer some very advanced and unique treatments for veterinary patients. During my residency, I participated in a feline renal transplantation program at the University of California–Davis and decided that I wanted to do something similar at Penn. Since I began the program here eight years ago, we've performed more than 80 renal transplants. I allow students to participate in these cases, which gives them a unique learning opportunity since very few schools in the country have such a program. It's very satisfying to watch students develop their surgical skills and build confidence in surgery.

Academic Courses and Course Organization

Your first two years will consist of challenging, intense courses in the basic sciences, roughly 30 to 35 hours of class per week. Students learn basic sciences —biochemistry, physiology, pharmacology, anatomy— in the first two years and increase clinical exposure in the third year in preparation for full-time clinics in the fourth year.



The faculty is organized into four departments:

ANIMAL BIOLOGY

PATHOBIOLOGY

CLINICAL STUDIES (PHILADELPHIA)

CLINICAL STUDIES (NEW BOLTON CENTER)

As a first- or second-year student, you may apply for a research project during the summer. For the past several years, up to 18 students have devoted their summers to research projects in fields as diverse as marine biology, production medicine, technology and business practices. Second-year students attend lectures on the principles of surgery, including aseptic techniques, hemostasis, sutures and suture materials, shock and wound healing. You will attend labs where you learn to prepare patients—and yourself—for surgery.

You may study at an aquarium or zoo, at the Centers for Disease Control, or National Institutes of Health. In your clinical years, you'll have access to a patient caseload unavailable at most other veterinary schools. Your hands-on experience includes small animals at the urban Matthew J. Ryan Veterinary Hospital and large animals at the George D. Widener Hospital.

As a student, you have access to a volunteer faculty mentor and an upper-class mentor. Whether you seek information about classes, studying or family life, they're there to help.

ANIMAL BIOLOGY
Major missions of the Department are: (1) Teaching in the veterinary curriculum and in graduate programs and (2) Research on fundamental aspects of cellular and molecular biology as they apply to disease

CLINICAL STUDIES
Philadelphia
Sections of behavior and human-animal interaction, cardiology, critical care/anesthesia, dermatology, epidemiology, medical genetics, medicine, neurology, oncology, radiology and surgery

COURSE & FACULTY ORGANIZATION

CLINICAL STUDIES
New Bolton Center
Sections of animal production systems, biostatistics, critical care/anesthesia, epidemiology and public health, field service, medicine, reproduction, sports medicine and imaging and surgery

PATHOBIOLOGY
Laboratories of Pathology and Toxicology, Microbiology and Immunology, Parasitology, Avian Medicine and Pathology, as well as the Division of Laboratory Animal Medicine

Students with their dogs in front of the Vernon and Shirley Hill Pavilion during construction. The building houses sections of the School's four departments.

PennFaculty

Lester Khoo, VMD '90

Assistant Professor of Aquatic Animal Medicine

Robert R. Marshak Term Professorship of Aquatic Animal Medicine and Pathology

Director, AQUAVET® Program

Penn Vet's AQUAVET® program affords veterinary students a rare educational opportunity to learn about aquatic animal medicine in a unique setting, the Marine Biological Laboratory in Woods Hole, Massachussetts. Since the courses are taught by a large cadre of faculty from various institutions in private industry, government and academia, students benefit from exposure to experts in the field and the opportunity to establish and nurture these contacts. They also enjoy hands-on and experiential learning through a tremendous number of laboratory sessions and field trips.

It is most gratifying to teach students who are highly motivated about the care, diagnosis and treatment of animals, knowing that they may become the leaders in veterinary medicine and that they can make a difference in this world.

Ryan Veterinary Hospital Small-Animal Medicine and Surgery

The Matthew J. Ryan Veterinary Hospital opened for companion-animal patients in 1981 and has accommodations for 180 patients. Fourth-year students rotate through the clinics. They often are the first to meet the clients when they perform the initial exam and take the history of patients.

Fourth-year clinical rotations are Internal Medicine, Surgery, Oncology, Emergency Service and others. Students see clinical cases with the faculty, residents and interns during the clinical rotations, with teaching rounds held daily. The Internal Medicine clinical rotation emphasizes problem solving and an understanding of pathophysiology. Clinical disciplines include gastroenterology, hematology, immunology, endocrinology, nephrology/urology, oncology, nutrition and infectious diseases.

The Medicine Section offers clinical exposure and training in many aspects of endoscopy (including upper and lower gastrointestinal endoscopy, bronchoscopy, cystoscopy and laparoscopy) and other medical diagnostic procedures (such as bone marrow evaluation and urinary tract evaluation).

The Medicine Section offers first-, second- and third-year courses in principles of medicine, physical examination, ethics and medicine/surgery. Faculty members in Medicine also teach other courses, including physiology, pharmacology, biochemistry and infectious and metabolic disease.

The Ryan Hospital's Emergency Service (ES) is busy with more than 13,000 patients a year, the largest caseload at any veterinary teaching hospital ES. Students experience the drama and pressures of a big-city emergency room. Animals are brought in with upset stomachs or life-threatening injuries

The Companion Animal Hemodialysis Center at the Ryan Veterinary Hospital offers hemodialysis treatment for dogs and cats (and sometimes ferrets) suffering from antifreeze poisoning, infections of the kidney and other systemic infectious diseases that affect the kidney, such as leptospirosis.

PennFaculty

and disease, and quick action is often required. ES is part of the Center for Veterinary Critical Care, which includes anesthesia and the Intensive Care Unit. The ICU, one of the most advanced units in the country, treats more than 1,000 patients annually.

In the third-year surgery, students learn to perform an ovariohysterectomy (spay). Dogs come from the Philadelphia Animal Care and Control Association (PACCA). Students perform physical exams, draw blood, check for heartworm and fecal parasites, then anesthetize the animals and perform the ovariohysterectomy. Students can help with adopting out these dogs.

In the fourth year, students rotate through clinics in soft-tissue and orthopaedic surgery, during which they assist with more advanced procedures. Often patients are referrals from other veterinarians. In such situations, students assist in the diagnosis and observe surgical treatment.

Small-animal radiology starts with lectures in the first, second and third years, followed by a two-week rotation in the fourth year. In the core course in radiology, you learn to read radiographs proficiently. You also encounter ultrasound, computed tomography (CT), magnetic resonance and radiation therapy. You can also select a two-week elective in radiology. The new Rosenthal Imaging and Treatment Facility, set for completion in the fall of 2006, will make the Ryan Veterinary Hospital the only veterinary teaching hospital in the region—and one in only a handful in the world—to have a linear accelerator, an MRI machine, and nuclear scintigraphy capabilities, all under one roof.

Meg M. Sleeper, VMD '93 Dipl. ACVIM

Section Chief, Cardiology
Assistant Professor of Cardiology

I love veterinary medicine, so teaching it is just a bonus. My exposure to many different specialties while I was a student at Penn Vet helped me choose my final career path in cardiology.

Our students learn about cardiology through a lot of three-dimensional computer simulation, and we invite them to visit us in the clinic where we can help them understand more difficult topic areas. They learn that cardiology is similar in all species. The most common diseases vary a little, but the basics cross over. That's why it is really "comparative cardiology."

Students help the poultry-health professionals at Penn Vet—on the farms, in the hatcheries and in the labs—advise poultry companies in the production of quality chicks for the growers. If and when poultry diseases arise, graduates of Penn Vet are well prepared to provide accurate, rapid diagnostic support to control diseases and prevent epidemics.

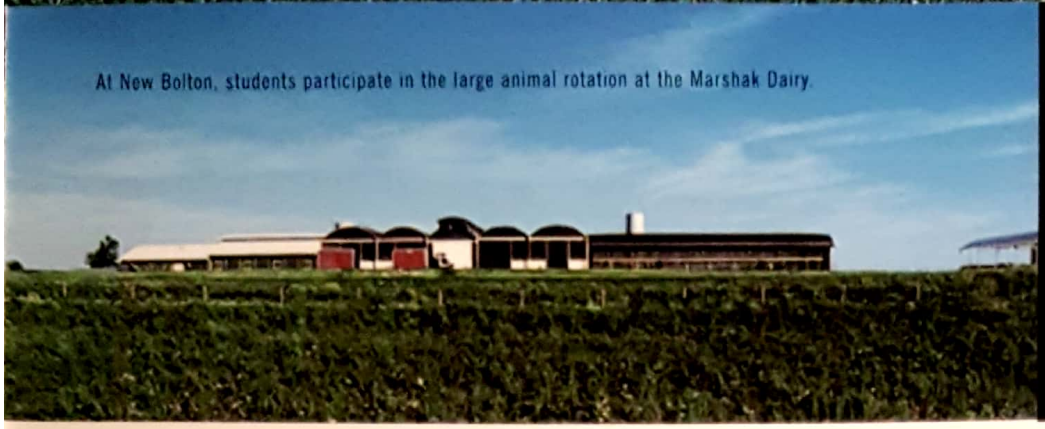
New Bolton Center

In 1964, the large-animal clinic opened at New Bolton Center, a farm in Chester County that the University had acquired in 1952. New Bolton Center has more than 70 buildings and 141 stalls for patients. Each year, the Widener Hospital sees more than 6,000 patient visits, and the Field Service sees more than 19,000 animals.

This means that we enjoy a large and varied caseload, from valuable horses that engage in every kind of equine athletic activity to swine, dairy cattle and small ruminants (goats and sheep), and a host of other animals. Penn boasts one of the largest equine surgical faculties in the world, and many of its members are known internationally. The Hospital's sections are staffed by clinicians well known for excellence in all areas of medicine, including equine internal medicine, such as respiratory disorders, gastrointestinal disease, muscle disorders, infectious diseases, neurology, neonatology and emergency and critical care. New Bolton also has a strong technical nursing staff, one of the finest of any vet school in the world.

The colic team introduces first- and second-year veterinary students to large-animal emergency medicine. As volunteers, students assist with emergency cases, at nights and on weekends, attending to cases they wouldn't otherwise encounter until their third year. Students can interact with patients beginning their first semester. Biosecurity, which includes patient handling and environmental surveillance, is now part of everyday life in the Widener Hospital. It is a critical element of patient care that ensures the elimination or minimalization of nosocomial (hospital-borne) infections. All students are expected to learn and scrupulously follow biosecurity protocols.

Students rotating through New Bolton Center have a chance to study at the Equine Sports Medicine and Imaging Section. This deeply specialized section treats sport horses with a wide variety of diagnostic modalities.



At New Bolton, students participate in the large animal rotation at the Marshak Dairy.

Food Animal Medicine

Today, veterinarians work with livestock, poultry, aquaculture and environmental industries to improve the health, productivity and quantity of food animals to meet the nutritional requirements of the world's 6.5 billion people. Pennsylvania is the nation's third-largest chicken producer, primarily egg layers, and New Bolton Center is the diagnostic center of choice for many poultry farmers in the region. One of Pennsylvania's three Animal Diagnostic Laboratories is housed at New Bolton Center, where scores of cases are brought annually for diagnosis. The Marshak Dairy Facility is a 35,000-square-foot greenhouse-style dairy barn with padded stalls for 200 head of cattle.

The Laboratory of Aquatic Animal Medicine and Pathology (LAAMP) works with aquaculture producers, veterinarians, and other interested people and groups. LAAMP investigates and assists with the diagnosis, treatment and prevention of disease in aquatic animals.

The Section of Animal Production Systems focuses on improving the health of herds and flocks, not just individual animals. This food-animal program looks at the entire farm operation while considering economic, environmental and food-safety perspectives. As students learn about increasing a farm's productivity, they take courses involving basic economics and record keeping. When they examine cattle, for instance, they evaluate milk yield, the calving interval, and reproductive efficiency and immunization programs. The uniquely diverse faculty includes, in addition to veterinarians, an agronomist and nutritionists. This holistic approach supports the School's commitment to making the world safer for animals and humans.

Ben Martin, VMD '80

Associate Professor, Sports Medicine

The most unique and important lesson that students learn at Penn is how to think about a problem in a logical, consistent way time after time. In equine sports medicine, we teach students to use all their faculties to assess the horse, identify the problem, figure out what to do and where to go for help, and determine the prognosis. We emphasize that you don't have to be perfect—you learn more from your mistakes than your successes.

Penn offers students an exceptional level of freedom to pursue a variety of learning opportunities, including their own independent projects. I encourage them to explore all the possibilities because this is a field of incredible excitement and diversity. If you can dream it, you can do it at Penn.

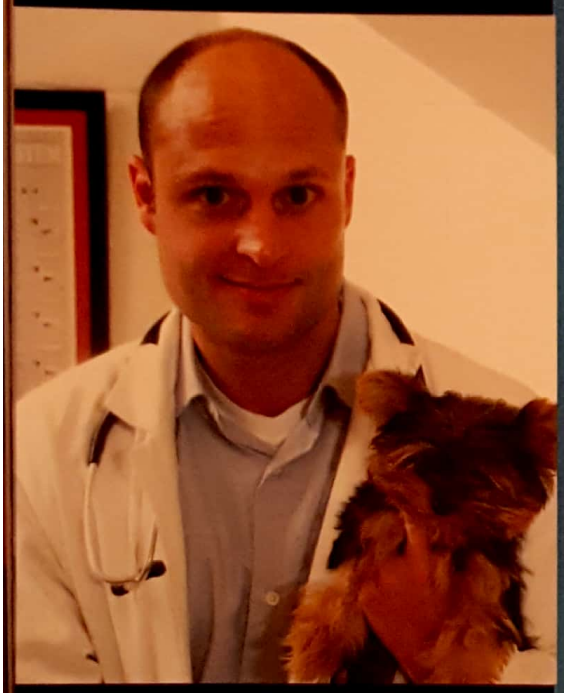
The Future

Penn's School of Veterinary Medicine continues to evolve as new knowledge emerges from basic research and clinical discoveries. As one of the pre-eminent veterinary schools in the world, we don't simply keep pace with new equipment, diagnostic procedures and treatment modalities—we participate in their invention and development.

Looking to the future, we see extraordinary growth in opportunities for veterinarians in response to real-world needs and demands. Some of the most urgent opportunities are in preventive medicine and public health, as the world grapples with threats of bioterrorism, agroterrorism and zoonotic diseases.

Veterinarians will also find a burgeoning field of opportunities in biomedical research and pathobiology, where their broad-based training

PennFaculty

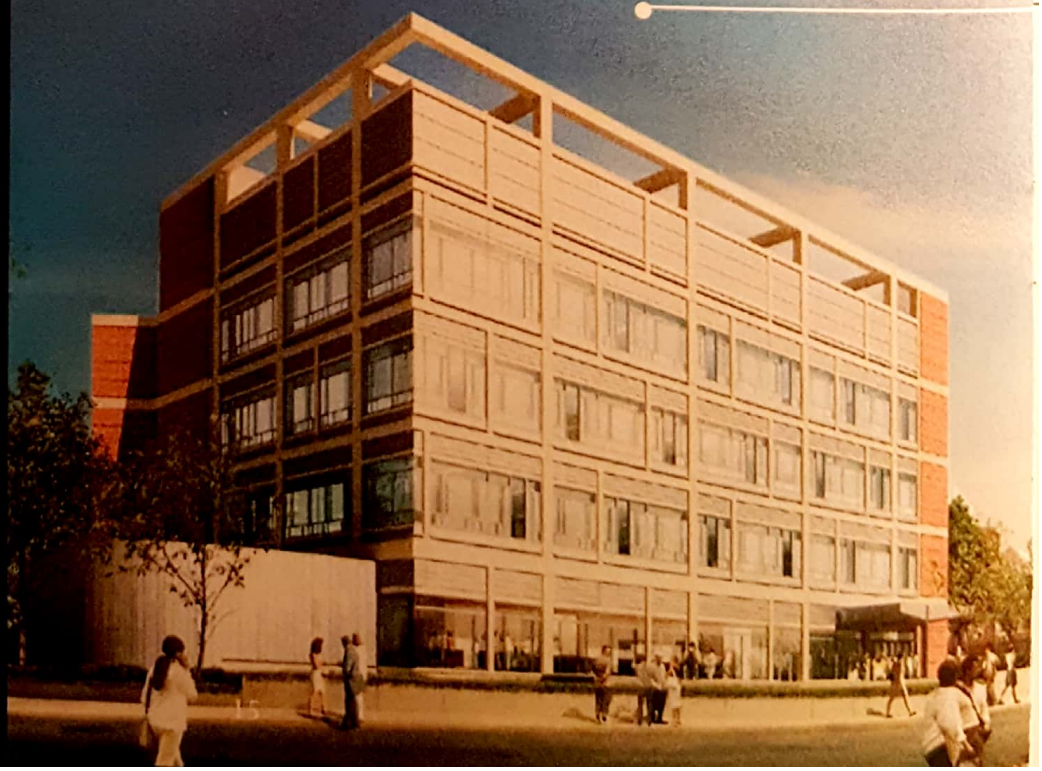


Chick Weisse, VMD '98
Dipl. ACVS

Assistant Professor of Surgery
Director, Interventional Radiology Services

Most students come to veterinary school to help animals. I think they will be surprised to learn how many people they help as well. The veterinarian, the pet and the owner all contribute important information to solve the problem. It is this "collaboration" that makes this such a special job.

Students at Penn Vet have access to some of the most advanced, state-of-the-art treatments available to animals anywhere in the world. I believe this exposure allows students to appreciate the potential in this field. The sky is the limit.



We pioneered the introduction of genetically modified and in vitro grown spermatogonial stem cells into the testis of a sterile mouse and also developed the first transgenic animals.

benefits both animal and human health. And as the world encroaches on wildlife and their habitats, more veterinarians are needed to ensure that these species and their way of life are protected.

As a major research university, the future of comparative medicine, diagnostics, medical treatments and surgery remain the most obvious among tomorrow's opportunities. Recent advances in genetics at Penn and other pioneering endeavors such as feline kidney transplants highlight our use of comparative medicine in reverse—applying principles that have served humans for the well-being of animals.

Do you have a place in Penn's future?

As we continue to enroll the brightest applicants, we are building our greatest legacy: our graduates. Each one strengthens our reputation as a superb institution and defines the veterinary and comparative medicines of the future. They are the healers, researchers and teachers who will uncover tomorrow's next opportunities.

THE HILL PAVILION includes innovative methods of using technology, from state-of-the-art lecture halls and seminar rooms to wireless networking throughout the entire building, to an information commons convergence with library technologies. The Steven W. Atwood Library and Information Commons features four group study rooms with computers and whiteboards; numerous study carrels; 12 computers; an electronic classroom/computing lab with an additional 12 computers; 10 lending laptops; and a high-tech production laboratory. The library houses course reserve books, and library staff are available to assist with research needs. The library's extensive collection of electronic journals and databases is accessible from within the library or from any Internet-connected computer.

PennProfile

Samantha C. Murray, VMD '01

Organization: Center for Animal Referral and Emergency Services (CARES), Langhorne, PA

Title: Internal Medicine Specialist

Hometown: Philadelphia, PA

What I do: See cases referred from primary care veterinarians with complicated medical problems such as chronic gastrointestinal disease and endocrine disease, among many others.

Best thing about my work: Each case is different and the variety keeps things interesting.

Most challenging part of my work: Balancing the best patient care possible with the client's budget. Costs are often a limiting factor in how far owners can pursue treatment for their pets.

Other cool jobs I've had: Studying equine behavior in a herd of semi-feral ponies with Dr. Sue McDonnell, founding head of Penn Vet's Equine Behavior Lab.

Achievement I'm most proud of: Graduating from veterinary school and completing a residency in internal medicine.

Person in my field I most admire and why: Dr. Ken Drobatz, professor of Critical Care and director of Emergency Service at Penn Vet. He has contributed a great deal to the School and has been a mentor to me and many other students, interns and residents.

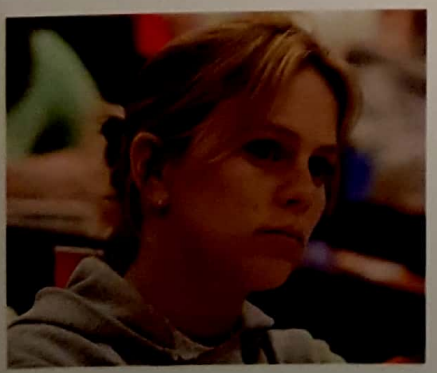
What I liked best about Penn: It's a busy, busy place! The caseload for each department is incredible and the emergency service is one of the busiest in the country.

Most valuable lesson I learned at Penn: The more you know, the more you realize how much more there is to know. Learning never stops.

My most surprising discovery about veterinary medicine: This field is ever-changing. People have high expectations with regard to the level of care for their pets, and veterinary medicine must keep up with this demand for excellence and specialization.

Admissions Requirements

The Admissions Committee of the School of Veterinary Medicine seeks to enroll a diversified class and, therefore, considers such factors as socio-economic (including racial and ethnic)



The minimum educational requirement for admission to Penn Vet is the satisfactory completion of three years' study in a college or university accredited by the Association of American Colleges and Universities or one of the regional accrediting associations. The three years of college study must total 90 semester credits (135 quarter credits) and must include the following courses:

English: 6 semester credits (at least 3 must be in composition).

Physics: 8 semester credits, including 2 laboratories.

Chemistry: 12 semester credits, including laboratory in at least one course; 8 semester credits in general chemistry; and at least 4 semester credits in organic chemistry. Although not required, biochemistry is strongly recommended.

Biology or Zoology: 9 semester credits (3 courses). The basic principles of genetics should be included in one of the courses. Additional upper-level biology courses are strongly recommended but not required.

Social Sciences or Humanities: 6 semester credits.

Calculus: 3 semester credits.

Statistics/biostatistics: 3 semester credits, effective June 1, 2008.

The biology requirements may be met by taking a six-semester credit course in general biology. This may be followed by a course of not less than three semester credits in embryology or comparative anatomy of the vertebrates. An alternative method of completing the biology requirements is to take separate courses in vertebrate zoology, genetics and embryology or comparative anatomy.

background, geographic origin (urban, suburban and rural), specific interests and activities, personal traits and academic background. In addition, every consideration is given to children of alumni, faculty and staff of the University.

Applicants also have the option of taking other courses such as microbiology, cell biology or molecular biology, which will satisfy these requirements. The ability of the applicant to write and speak English correctly is important.

The choice of additional courses is left to the student. However, because the curriculum of a professional school is extremely specialized, students are encouraged to make their college years as broad as possible by selecting in the humanities and social sciences. All course requirements must be met prior to matriculation.

All applicants must submit scores obtained on the general portion of the Graduate Record Examination (GRE), Educational Testing Service, P.O. Box 6000, Princeton, New Jersey, 08541-6000. (The GRE code for Penn Vet is 2775.) These test scores must be received by the Admissions Office no later than December 1. The obligation to understand and to meet these requirements rests solely with the applicant.

All applicants for each entering class are reviewed by the Committee on Admissions, a standing committee of the faculty. Applicants are selected on a comparative basis. Having all the requirements for admission does not ensure acceptance, because there are

In the Hill Pavilion, students learn in large lecture halls with an integrated communications media and Internet-based networked environment for digital collaboration and interactive presentations.

PennProfile

Alexander J. Travis, VMD '95, PhD '99

Organization: Cornell University College of Veterinary Medicine, Baker Institute of Animal Health

Title: Assistant Professor of Reproductive Biology

Hometown: Ithaca, NY

What I do: Teach and conduct research in reproductive biology. My research focuses on basic cell and molecular biological studies of how gametes work with the goals of providing help for animals and humans who are infertile and conservation of threatened and endangered species. I am also studying the use of new stem cell-based technologies to help preserve the genetic diversity and breeding potential of valuable animals.

Best thing about my work: Conducting research in areas that I believe are really important for the world while teaching and sharing the joy of discovery with students.

Most challenging part of my work: Not having enough time in the day to accomplish everything I want.

Other cool jobs I've had: Conducting research in the reproduction of wallabies in Australia; part-time small animal veterinarian.

Achievement I'm most proud of: My research work has helped to address some fundamental questions related to sperm biology.

Person in my field I most admire and why: Roger Short, BVSc, PhD, the research scientist with whom I worked in Australia. I admire his research achievements and his extraordinarily enthusiastic and inquisitive approach to science.

What I liked best about Penn: I went to Penn because of the VMD/PhD dual-degree program that gave me excellent preparation for a career in research.

Most valuable lesson I learned at Penn: How to think like a scientist.

My most surprising discovery about veterinary medicine: The vast number of career opportunities and, at the same time, the large number of people who feel limited to the practice of companion-animal care.

many more applicants than places. In making selections, the Committee on Admissions considers all factors presented in the applicant's file, but the following are most important: academic ability, apparent familiarity with the profession and resultant sincerity of interest, recommendations of academic counselors and veterinarians, GRE scores, character, personality and general fitness and adaptability for a career in veterinary medicine.

Exposure to practice, research or other areas of veterinary medicine is essential and should be documented. The applicant should submit three recommendations to the Veterinary Medical College Application Service (VMCAS). This can be done in two ways. VMCAS recommendation forms can be downloaded and printed from the VMCAS Web site (aavmc.org/vmcas/vmcas.htm) and submitted in sealed envelopes signed across the seal, or electronic recommendation forms may be completed and sent directly to VMCAS electronically. One evaluation must be from a science-related academic source and one must be from a veterinarian. The third is of the applicant's choice but should not be from a family member.

Procedures for Applying

Candidates can obtain a VMCAS application anytime after June 1 by contacting the American Association of Veterinary Medical Colleges, Veterinary Medical College Application Service, 202-682-0750, or at www.aavmc.org. The closing date for application to Penn Vet is October 1. Applications received and processed by VMCAS after the October 1 postmark deadline will not be considered by the School. Applicants who were not selected must apply again if they wish to be reconsidered. Personal interviews with the Committee on Admissions are by invitation only. Applicants are notified of the Committee's decision between January and April. Unsuccessful applicants may request a personal or telephone appointment for counseling.

Information about the pre-professional program at the University of Pennsylvania may be obtained by writing to:

Dean of Undergraduate Admissions
University of Pennsylvania
One College Hall
Philadelphia, PA 19104-6008.

Confidentiality of Student Records

Pursuant to the Family Education Rights and Privacy Act of 1974 as amended, in general, personally identifiable information can be disclosed to persons outside the University only with the written consent of the student or alumnus involved. A statement is available that sets forth specific University policy concerning (1) disclosure of information to persons outside the University, (2) disclosure of information to persons within the University, (3) permitting students to inspect and review records, and (4) providing the student with the opportunity to seek the correction of their record. The complete confidentiality statement is available in the Undergraduate Academic Bulletin and the Graduate Academic Bulletin.

Combined-Degree Programs

VMD/PhD Veterinary Medical Scientist Training Program (VMSTP)

Modern veterinary and human medicine are more complex than ever before. As a result, young scientists interested in studying comparative medicine need a comprehension of biology at all levels and broad experience in numerous species. Instruction in veterinary and human medicine, coupled with rigorous research training, are necessary for talented individuals to press forward frontiers in animal and human health.

The School offers qualified students the opportunity to do just that, through its Veterinary Medical Scientist Training Program, begun here in the 1960s. Students can complete coursework to earn both VMD and PhD degrees, while receiving in-depth research training in a modern, basic science discipline and acquiring a foundation in veterinary clinical medicine. Approximately 85 percent of our graduates hold positions in scientific research at academic institutions, research institutes or the pharmaceutical industry. Our high-achieving alumni often rise to positions of seniority in their chosen field and command strong funding bases.

Students enrolled in the program will train at the Matthew J. Ryan Veterinary Hospital in Philadelphia and the George D. Widener Hospital for Large Animals in Kennett Square, PA. The PhD portion of the program usually is performed through one of the University-wide graduate groups in the Biomedical Graduate Studies Program. In addition, students can do their dissertation research in any of the University's more than 500 qualified laboratories, many of which are participants in multi-disciplinary institutes and centers.

Because admission to the program is highly competitive, candidates generally have significant research experience, excellent grades, high standardized test scores and strong letters of recommendation. Students also can apply during the first or second year of veterinary school. Financial support is provided by various sources, including the National Institutes of Health and Pfizer Animal Health. The deadline for applications is November 15 for matriculation the following September. Interested students are encouraged to visit the program's Web site at www.vet.upenn.edu/programs/vmstp/ or to contact Dr. Michael Atchison, VMSTP Director,

PennProfile

Jessica Stehr, VMD '98, MBA '00

Organization: Merck & Co., Inc.

Title: Director, Program Management

Hometown: Beavertown, PA (original); Old Bridge, NJ (current)

What I do: Work with teams of medical researchers, physicians, marketing experts and finance specialists to plan and develop new drugs for human patients and evaluate potential future drugs and vaccines for possible licensing. Analyze and determine how to optimize the process used to develop new medicines (R&D process optimization).

Best thing about my work: Rich opportunities for learning and developing new skills; developing medicines and vaccines for people who need them.

Most challenging part of my work: Fast pace and large amounts of new information.

Other cool jobs I've had: Small animal veterinarian (still practice part-time.)

Achievement I'm most proud of: Being part of the team that developed and launched Zetia (ezetimibe) for treatment of high cholesterol.

Person in my field I most admire and why: Peter Kim, President, Merck Research Laboratories, for his scientific creativity and dedication to advancing health care.

What I liked best about Penn: Variety of learning opportunities in extracurricular activities and clubs as well as the classroom.

Most valuable lesson I learned at Penn: Importance of being resilient and persevering to reach your career goals.

My most surprising discovery about veterinary medicine: The depth and breadth of the field. I discover more non-traditional career possibilities every day.

School of Veterinary Medicine, 3800 Spruce St., Philadelphia, PA 19104. Dr. Atchison may also be reached directly at vmstp@vet.upenn.edu.

VMD/MBA Degree Program

For students whose career goals involve both veterinary medicine and business, the School of Veterinary Medicine and the Wharton School offer a combined course leading to the VMD/MBA degrees. The close proximity of the two schools on the University of Pennsylvania campus and the interchange of knowledge between their faculties make such a unique educational venture possible. The joint program involves five or six years of study.

Other Information

Instruction is divided into two major components—the core courses and the elective courses. The core courses comprise approximately 60 percent of the total requirements for graduation. All students must complete this part of the program.

Students may select courses conducted either at Penn Vet or other schools. Credits toward graduation may be earned with extramural electives, provided approval of their suitability to a veterinary education is obtained from the Education Committee.

Core assignments will necessitate the student spending time at the New Bolton Center campus. Elective selections may take the student to additional off-campus locations such as other veterinary schools.

Attendance at all laboratory sessions is mandatory. Some laboratory sessions include experiments or procedures on living animals.

If you have research interests and abilities in areas not covered in the formal core and elective courses, you may engage in independent study and research under the sponsorship of an individual faculty member. Elective credits are awarded by the Education Committee for the time spent in independent study and research, and these credits may be used in the partial fulfillment of the requirements for graduation.

Requirements for Graduation

To qualify for the Veterinariae Medicinae Doctoris (VMD), the student must: (a) spend a minimum of four academic years in residences, (b) satisfactorily complete all core courses, and (c) accumulate no fewer than 160 elective credits, including no fewer than 70 credits of intramural clinical electives (at least 50 from the list of major required or recommended elective rotations.)

All candidates must be recommended for graduation by the faculty of Penn Vet.

The VMD degree qualifies the graduate for licensing examinations.

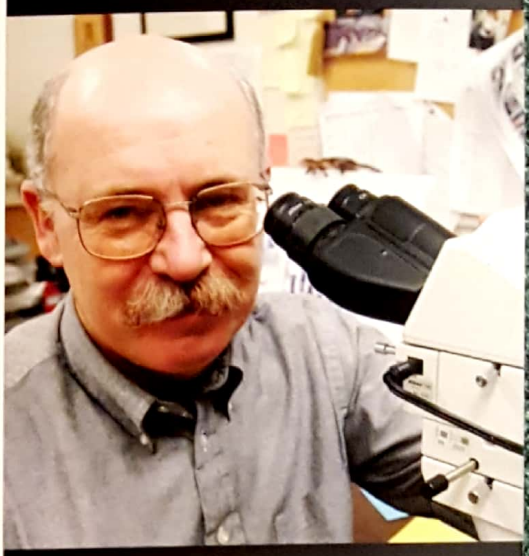
Non-Discrimination Policy Statement

The University of Pennsylvania values diversity and seeks talented students, faculty and staff from diverse backgrounds. The University of Pennsylvania does not discriminate on the basis of race, sex, sexual orientation, gender identity, religion, color, national or ethnic origin, age, disability or status as a Vietnam era veteran or disabled veteran in the administration of educational policies, programs or activities; admissions policies; scholarship and loan awards; athletic, or other University-administered programs or employment. Questions or complaints regarding this policy should be directed to: Executive Director, Office of Affirmative Action and Equal Opportunity Programs, Sansom Place East, 3600 Chestnut Street, Suite 228, Philadelphia, PA 19104-6106 or by phone at 215-898-6993 (voice) or 215-898-7803 (TDD).

Notice to Prospective Students of Availability of Crime Information

The federal Crime Awareness and Campus Security Act, as amended, requires colleges and universities to provide information related to security policies and procedures and specific statistics for criminal incidents, arrests and disciplinary referrals to students and employees, and to make the information and statistics available to prospective students and employees upon request. In addition, the Pennsylvania College and University Security and Information Act requires Pennsylvania colleges and universities to provide information related to security policies and procedures to students, employees and applicants; to provide certain crime statistics to students and employees, and to make those statistics available to applicants and prospective employees upon request. To review the University's most recent annual report containing this information, please go to www.upenn.edu/almanac/v50/n04/annual_crime.html. You may request a paper copy of the report by calling the Division of Public Safety at 215-898-4482.

PennFaculty



Tom Van Winkle, VMD '75 Dipl. ACVP

Professor, Laboratory of Pathology and Toxicology

One of the best things about veterinary medicine is the many career possibilities that exist. When I started veterinary school, I was interested in research. I changed my mind and, after graduation, went into private small animal practice where I found that I really wanted to know more about the diseases I was treating. I then applied to pathology residency programs, discovered that I really enjoy pathology and that has been my focus ever since.

As a student, understanding pathology makes much of the rest of the curriculum easier. At Penn, I was taught by some outstanding pathology faculty who influenced my desire to become a pathologist.

Contact information

Student Admissions

phone/voice mail
215-898-5434

fax
215-573-8819

e-mail
admissions@vet.upenn.edu

Different by Design

V.M.D.

Veterinariae Medicinae Doctoris

The degree of *Veterinariae Medicinae Doctoris* is a badge that honors our School's roots in Penn's School of Medicine, and the principle of "One Medicine," that human and animal health are interrelated. The degree is unique and prestigious within veterinary medicine.

Penn Veterinary Medicine

University of Pennsylvania

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