Teaching
Research
Healing
Teaching
Responsibility for Animals and People
For Animals and People

The University of Veterinary Medicine, Vienna stands for a first-rate education with a high degree of practical relevance. Outstanding basic research in veterinary medicine and the natural sciences, as well as applied and clinical research, ensure scientific progress that benefits animals and humans. Healthy animals and safe animal-based foods are an essential prerequisite for public health. The academic offering meets international standards. Course content is conveyed in an interdisciplinary and problem-based fashion. Five University Clinics, an agricultural teaching and research farm and an on-site training centre with a practice veterinary clinic are available for clinical and hands-on training.

The University Clinics are both teaching hospital and transfer clinic for scientifically challenging cases from local veterinarians. Animal patients are cared for all year long, round the clock.

The Vienna campus of the Vetmeduni Vienna houses the Messerli Research Institute; two research institutes at Vienna’s Wilhelminenberg and an extensive teaching and research farm south of Vienna with a satellite in Wieselburg and the IFA Tulln are included. The children of the staff and students are cared for during the day at a kindergarten.

Topic areas of the Vetmeduni Vienna:
- Animal health
- Preventive veterinary medicine
- Comparative medicine
- Animal models
- Public health and food safety
- Animal husbandry, animal welfare and animal ethics
- Organismal biology and biodiversity

The Vetmeduni Vienna champions the compatibility of career and family, also school and family; it has been accorded the “hochschuleundfamilie” (“university and family”) certificate since 2011.

Staff (as of 5 January 2017)
- over 1,300 staff
- including ca. 690 scientific staff
- among them 39 professors

Students (as of 5 January 2017)
- about 2,400 students in total
- ca. 2,300 regular students

University Clinics (as of 31 December 2016)
- over 51,000 animal patients annually
- 5 species-specific University Clinics:
  - University Clinic for Poultry and Fish Medicine
  - University Clinic for Small Animals
  - University Clinic for Horses
  - University Clinic for Swine
  - University Clinic for Ruminants

At a Glance

The University of Veterinary Medicine, Vienna stands for a first-rate education with a high degree of practical relevance. Outstanding basic research in veterinary medicine and the natural sciences, as well as applied and clinical research, ensure scientific progress that benefits animals and humans. Healthy animals and safe animal-based foods are an essential prerequisite for public health. The academic offering meets international standards. Course content is conveyed in an interdisciplinary and problem-based fashion. Five University Clinics, an agricultural teaching and research farm and an on-site training centre with a practice veterinary clinic are available for clinical and hands-on training.

The University Clinics are both teaching hospital and transfer clinic for scientifically challenging cases from local veterinarians. Animal patients are cared for all year long, round the clock.

The Vienna campus of the Vetmeduni Vienna houses the Messerli Research Institute; two research institutes at Vienna’s Wilhelminenberg and an extensive teaching and research farm south of Vienna with a satellite in Wieselburg and the IFA Tulln are included. The children of the staff and students are cared for during the day at a kindergarten.

Topic areas of the Vetmeduni Vienna:
- Animal health
- Preventive veterinary medicine
- Comparative medicine
- Animal models
- Public health and food safety
- Animal husbandry, animal welfare and animal ethics
- Organismal biology and biodiversity

The Vetmeduni Vienna champions the compatibility of career and family, also school and family; it has been accorded the “hochschuleundfamilie” (“university and family”) certificate since 2011.
First-rate education

The Vetmeduni Vienna offers its students a first-rate education. In addition to diploma and doctoral programmes in veterinary medicine, there are bachelor’s and master’s programmes in biomedicine and biotechnology. A bachelor’s programme in equine sciences is offered; as well as master’s programmes in human-animal interactions, comparative morphology and evolutionary systems biology. PhD programmes round out the educational palette. Internships and residencies serve to deepen veterinary medical education after formal studies have been completed. Various courses of study at the University facilitate education and continuing education in specialized areas.

Hands-on education

Hands-on education is writ large at the Vetmeduni Vienna. Students can apply their knowledge in practice at the University-owned teaching and research farm in Lower Austria, which includes four agricultural holdings. With the mobile clinic, students can drive to partner enterprises and prepare themselves to be farm animal veterinarians. The teaching and research farm is an important complement to the teaching hospital on the Vienna campus.

The “VetSim – Simulating Vet’s Life” skills lab of the teaching and student-centered learning. This means that a central tenet is students having primary responsibility for learning. Teaching takes place in small groups and classes are structured to be interactive, with multimedia support such as a clicker system or the Vetucation® e-learning platform.

University courses of study/continuing education

- Diplom study: Veterinary Medicine
- Bachelor’s programmes:
  - Biomedicine and Biotechnology
  - Equine Science
- Doctoral programme: Veterinary Medicine
- PhD-programme

- Master’s programmes:
  - Comparative Biomedicine (English language)
  - Comparative Vertebrate Morphology (English language)
  - Human-Animal Interactions (English language)
  - Wildlife Ecology and Wildlife Management
  - Evolutionary Systems Biology (English language)

Courses of study (as of 1 October 2017)

- Diploma study:
  - Veterinary Medicine
- Bachelor’s programmes:
  - Biomedicine and Biotechnology
  - Equine Science
- Doctoral programme:
  - Veterinary Medicine
- PhD-programme

Internships

- Small Animal Medicine, Equine Medicine, Ruminant Medicine

For every category of animals, all clinical areas – from anaesthesiology to diagnostic imaging to pathology – are covered on a rotation basis.
Research Focus
Research activities at the Vetmeduni Vienna are concentrated around these core topics:

- Endocrinology
- Nutrition physiology
- Infectious diseases (fish, poultry, swine)
- Food microbiology and risk analysis of animal-based food products
- Population genomics
- Translational medicine and comparative medicine
- Behavioural biology and behavioural ecology (incl. cognition)
- Wildlife ecology and medicine

Researchers at the Vetmeduni Vienna conduct outstanding basic research in veterinary medicine and the natural sciences, as well as applied and clinical research. Therein, teaching and research are closely linked. This leads to new perspectives in prevention, innovative diagnostic possibilities and more targeted treatments, which can be rapidly introduced into veterinary medical practice to benefit animal patients.

Relevant to society
The Vetmeduni Vienna researches topics that are meaningful to society: the emphasis is on animal health and preventative veterinary medicine, public health and food safety. Research interests are focused on generating a scientific basis for the well-being of animals and on issues of animal husbandry, animal welfare and animal ethics.

One Health – Research for Animal and Human Health
Veterinarians work at the interface of the animals, humans and the environment. Their research efforts foster animal health and contribute to food safety. Newly developed treatment methods are beneficial for humans as well as animals. This strategy is called “One Health”.

Successful in Science and Research
Numerous major research projects such as Christian Doppler laboratories, Special Research Programmes (SFB) of the Austrian Science Fund (FWF), European Research Council (ERC) grants and many others attest to the successful scientific activities of the Vetmeduni Vienna.
At the University Clinics, animal patients are cared for around the clock. The University Clinics serve as a teaching hospital for students at the University and simultaneously as a referral clinic for local veterinarians. The portals of the University Clinics are also open to animal owners for the veterinary services and procedures their pets require. Thereby, clinically and scientifically challenging cases often lead to important scientific insights, which ultimately benefit these and other animal patients.

**Round-the-clock animal care**

**High-tech medicine**

With a treatment, prevention and diagnostic services offering that is as broad as it is highly specialized, the University Clinics are able to provide their animal patients with innovative, research-based medical care. Internationally renowned veterinary specialists, so-called diplomates, treat patients according to the most up-to-date research.

The University Clinics are outfitted with state-of-the-art equipment. In the diagnostic imaging area this includes high-tech instruments such a very fast and precise computer tomography (CT) scanner, and also a magnetic resonance imaging (MRI) scanner for visualizing pathological changes in their very early stages.

For the treatment of tumour patients, experts at the University Clinics have a modern linear accelerator at their disposal for radiation therapy. The University’s own scintigraphy imaging system can be used in the determination of metabolic diseases in animal patients, for example, since it portrays metabolic activity in the body.

**Diagnostics for the University and its partners**

The Vetmeduni Vienna’s comprehensive array of diagnostic examinations is also available for use by our research and business partners, as well as practicing veterinarians. Essential parts of the routine diagnostic examinations are ISO 9001 certified.

**The Department of Biomedical Sciences combines many different basic research subjects. One focus is the analysis of various signalling pathways in cells in order to decode links between immune system, infections, inflammation and cancer.**

Experimental endocrinology studies the effects of hormones in both healthy and diseased organisms. Population genetics, reproduction biotechnology and transgenetics all investigate how genes and genomes spread and how they work in different organisms.

Overall, the department makes a significant contribution to the development of Transnational and Comparative Medicine. Scientific results do not only contribute to the advancement of veterinary medicine but also to the improvement of human medicine. The Department’s methodological expertise and interdisciplinary approach enable efficient processing of scientific questions and create ideal conditions for education and training of students and scientists.

**Institutes and Platforms**

- Institute of Laboratory Animal Science
- Institute of Medical Biochemistry
- Institute of Pharmacology and Toxicology
- Institute of Physiology, Pathophysiology and Biophysics
- Institute of Population Genetics
- Institute of Animal Breeding and Genetics
- Bioinformatics and Biostatistics Platform
- Biomodels Austria Platform
At the Interface

The Department deals with drawing boundaries between sick and healthy. Its scientists study the genesis of both infectious and non-infectious diseases and monitor their progress.

Research is centered not only on pathogenic germs such as viruses, bacteria and parasites but also on the host's immune responses and tissue changes caused by infections. One focal point is the study of interaction between host and pathogen.

Research comprises macro- and microscopic morphological, immunological, biochemical and molecular methods. The Department combines disciplines from both basic and application-oriented research and provides services to university hospitals as well as to veterinary practitioners.

The results gained from research provide new efficient methods for diagnostics and follow-up of diseases so that new therapeutic strategies can be developed and checked.

Institutes and Platforms

- Institute of Topographic Anatomy
- Institute of Immunology
- Institute of Microbiology
- Institute of Parasitology
- Institute of Pathology and Forensic Veterinary Medicine
- Institute of Virology
- Clinical Pathology Platform

Healthy Animals for Safe Food

The Department for Farm Animals and Veterinary Public Health makes an important contribution not only to animal health but also to the conservation of farm animal stocks and to public health service, especially to food safety.

The safety and quality of food of animal origin is analysed along the entire production chain (“from stable to table”). This includes not only the primary production by agricultural businesses but also the slaughter of animals and the processing of meats.

All university clinics and institutes associated with the department teach and study in the field of veterinary medicine for farm animals using state-of-the-art approaches in prevention, diagnostics and therapy as well as in livestock management. The welfare and protection of animals are of special importance in the department’s work.

Its objective at all times is the improvement of animal health in order to obtain safe food of high quality.

Institutes and University Clinics

- Institute of Meat Hygiene, Meat Technology and Food Science
- Institute of Milk Hygiene, Milk Technology and Food Science
- Institute of Veterinary Public Health
- Institute of Animal Nutrition and Functional Plant Compounds
- Institute of Animal Husbandry and Animal Welfare
- University Clinic for Poultry and Fish Medicine
- University Clinic for Swine
- University Clinic for Ruminants
The Department of Companion Animals and Horses provides comprehensive yet specialist medical care comprising prevention, diagnostics and treatment. The university clinics care for emergency cases around the clock, seven days a week. Sick and injured pets and horses are treated as inpatients, outpatients and even in intensive care by specialist veterinarians (so-called Diplomates) trained to European standard. These recognized specialists in their particular field, together with their teams, take care of their patients’ well-being. The experts also work on research projects, which ensures that patients are cared for using the latest findings.

The university clinics are very important for the education of prospective veterinarians and animal caretakers. The close interaction between curative work and research forms the basis of research-oriented teaching.

The Department of Integrative Biology and Evolution includes the Research Institute of Wildlife Ecology and the Konrad Lorenz Institute of Ethology. It also houses the first Austrian bird observatory.

The main concern of the Research Institute of Wildlife Ecology is the study of behaviour and needs of wildlife in an ecological context. This creates the scientific basis for the efficient protection of nature, of species and of the environment and for a sustainable utilisation of multi-functional landscapes. The institute conducts interdisciplinary and cross-border research at different levels: individuals, populations and ecosystems.

The focal point of research at the Konrad Lorenz Institute of Ethology is on behavioural ecology, in particular on sexual selection. Model organisms such as mammals, birds and fish are studied within their natural habitats, in semi-natural environments, and experiments. Apart from classic behavioural monitoring, molecular genetic and biochemical methods are used to find answers to questions about the value of behavioural adjustment and its underlying physiological mechanisms. Moreover, the first Austrian bird observatory with its outpost in Seebarn am Wagram, Lower Austria, is part of the Department.

**Institutes**
- Research Institute of Wildlife Ecology
- Konrad Lorenz Institute of Ethology
Reaching across University boundaries, the Messerli Research Institute is dedicated to interdisciplinary research on human-animal interactions and its basis in the fields of animal cognition and behaviour, comparative medicine and ethics. The Institute aims to give people and society scientifically based information to serve as a guide for the defensible treatment of animals and to support them in fulfilling their responsibilities towards animals.

The Messerli Research Institute was founded with support from the Messerli Foundation in Switzerland under the aegis of the University of Veterinary Medicine, Vienna in cooperation with the Medical University of Vienna and the University of Vienna. Experts in the fields of biology, medicine, veterinary medicine, philosophy, psychology and law work together in research and teaching. Their research results constitute an integral component of the academic education; the Institute has an international orientation and offers an interdisciplinary, English-language master’s programme in human-animal interactions.

Besides high professional expertise and the excellent infrastructure on the campus and at the outposts (e.g. Clever Dog Lab for research into the intelligence of dogs and the human/dog relationship; avian research station “Haidlhof”), interdisciplinary research activities distinguish this institute. In order to implement research objectives such as the promotion of human and animal health through comparative medical research projects (e.g. oncology and allergology), the facility always commits itself to a good balance between excellent basic and applied research.