

UCDAVIS

School of Veterinary Medicine

#1

QS World University
Rankings and U.S. News
and World Report



Advancing the Health of Animals,
People and the Environment



Welcome

Since its inception in 1948, the UC Davis School of Veterinary Medicine has shaped the field of veterinary medicine—setting the bar for education, and discovering clinical and scientific breakthroughs to benefit animals and humans. The school trains leaders in veterinary medical practice, higher education, public health, research, disease control, food safety, environmental protection and biotechnology. As a society, we're increasingly aware of the link between animals, people and the environment. Our future veterinarians are trained to not only provide excellent care for animals, but to recognize connections to human and environmental health through a One Health approach. Our students may pursue careers from clinical practice to basic research, each benefiting from the vast array of training opportunities offered at UC Davis and our many programs throughout California and the world. I'm proud of the expertise of our faculty members who are committed to solving some of the world's most persistent global health problems. As world-renowned experts in their fields, our faculty members work in multi-disciplinary teams to advance veterinary medicine, as well as the biomedical sciences. These collaborations produce fundamental new knowledge that protects animal and human health. Working together with our dedicated and highly trained staff, our teams strive to address the most complex problems we face in our inter-connected community, by providing innovative solutions through cutting-edge clinical and scientific breakthroughs—leading veterinary medicine and addressing societal issues.

Michael D. Lairmore

Michael D. Lairmore, Dean and Distinguished Professor
UC Davis School of Veterinary Medicine

What Sets Us Apart



Top-ranked global leader in veterinary medicine

Leading the nation with more than \$70 million in annual research funding

Faculty and highly trained staff treat **more than 50,000 patients each year**

Nation's **largest veterinary residency program**

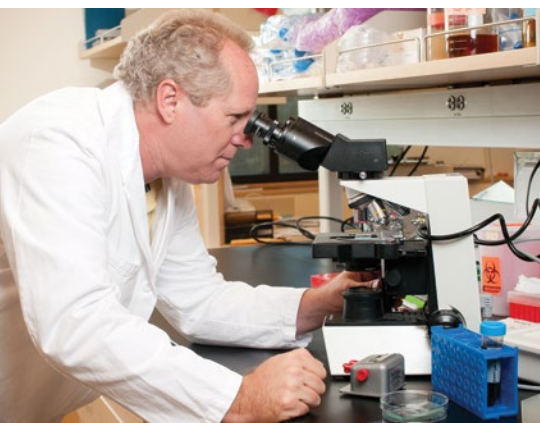
Five faculty members honored as members of the National Academies of Science

United States Agency for International Development awarded \$175 million to the PREDICT program, making it the **largest on-going extramurally funded project in UC Davis history**

Five Fellows of the American Association for the Advancement of Science

Pioneered:

- ▶ Animal DNA testing
- ▶ Mandibular reconstruction
- ▶ Interventional radiology
- ▶ Mastitis vaccine for dairy cattle
- ▶ Organ stenting
- ▶ Regenerative medicine
- ▶ Feline leukemia vaccine
- ▶ Canine dialysis
- ▶ Equine Protozoal Myeloencephalitis (EPM) testing
- ▶ World's first zoological medicine program
- ▶ National Veterinary Center for Clinical Trials
- ▶ Shelter medicine



One Health: Working Together

The health of animals, people and their shared environment are inextricably linked. The UC Davis School of Veterinary Medicine embraces the One Health approach on a local and global scale.



One Health Institute – Working at the interface of animals, people and the environment, the OHI solves multifaceted problems that impact health and conservation around the globe.

\$175

million multi-institutional PREDICT initiative led by the OHI and funded by USAID provides rapid detection and response to emerging viruses such as Ebola and SARS that move among people, wildlife and livestock. The program currently operates in more than 30 countries around the world.



Karen C. Drayer Wildlife Health Center – The center focuses on concerns involving free-ranging and captive terrestrial and aquatic wild animals. Its scientists provide broad-based service, training and research activities both in California and the world to positively impact wildlife health and conservation.



California Animal Health and Food Safety Laboratory System – Through facilities in Davis, San Bernardino, Tulare and Turlock, CAHFS protects the health of livestock and poultry, and safeguards public health with rapid and reliable diagnoses for animal diseases affecting humans. In partnership with the California Department of Food and Agriculture, UC Davis veterinarians, and livestock and poultry producers, the laboratory system tests more than 500,000 samples annually.



Western Institute for Food Safety and Security – Collaborating with the College of Agricultural and Environmental Sciences, state and federal agencies, and producers, WIFSS advances food safety and security, and safe water for drinking and irrigation. Efforts include: identifying causes of food- and water-borne diseases, outbreak prevention and tracing outbreak sources.



Center for Companion Animal Health – The CCAH focuses on improving animal health by developing programs and sponsoring research in areas such as genetics, shelter medicine, cancer, behavior, hemodialysis and surgical techniques. Many discoveries in animal health translate to advances in human health, impacting pets’ families as well.

Center for Comparative Medicine – Using animal models and naturally occurring animal diseases, the CCM brings together human and veterinary medicine researchers to investigate the pathogenesis of diseases that affect humans and animals, such as brain cancer, Lyme disease, HIV/AIDS and influenza.

Comparative Cancer Center – Researchers at the CCC work closely with UC Davis School of Medicine physicians and researchers to utilize for humans what is learned in animal models. Veterinary neurologists collaborated with colleagues from the UC San Francisco School of Medicine to develop a new technique to deliver chemotherapy directly into a brain tumor—a procedure with promise for human medicine.



Cutting-Edge Research

Research fuels discoveries that transform the health of animals, people and the environment. UC Davis leads the nation's 30 veterinary schools in research funding, receiving more than \$70 million annually. Approximately 30 percent of that comes from the National Institutes of Health. Key areas of collaborative, transdisciplinary research include:

Food Safety – The 100K Genome Project is on the forefront of limiting the spread of microorganisms such as *Salmonella* and *E. coli* by sequencing the genomes of 100,000 infectious pathogens and speeding the diagnosis of foodborne illnesses.

Autism – Researchers at the California National Primate Research Center and UC Davis MIND Institute investigate how exposure to toxic compounds may combine with genetic predisposition to alter brain development and lead to autism.

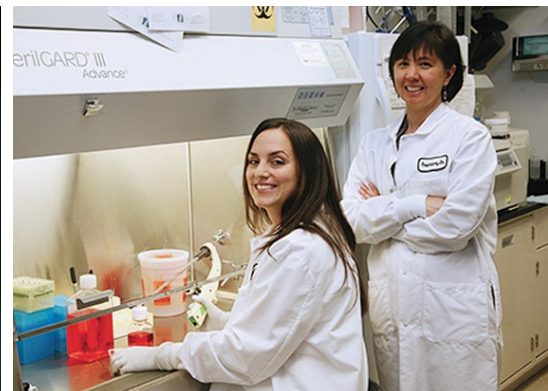
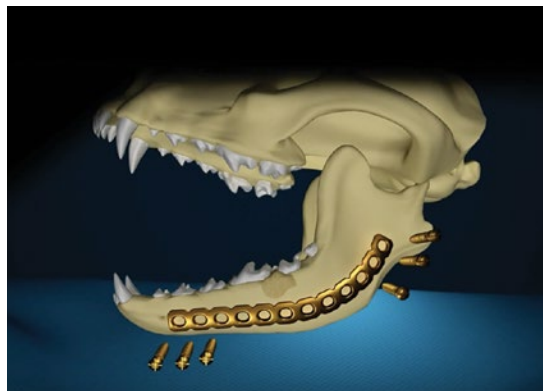
Translational Medicine – The school's Veterinary Center for Clinical Trials leads the nation in translating knowledge from studying animal medicine to application in human medicine. More than 100 ongoing trials include multi-species studies on cancer, pain management, stem cell therapy and ophthalmology.

Diabetes – Scientists are developing strategies for preventing and treating type 2 diabetes, which affects 21 million people nationwide.

Seizure Disorders – With \$17 million in funding from the NIH, the CounterACT Center of Excellence identifies medical countermeasures to deal with neurotoxic chemicals that cause seizures in humans and animals.

Clinical Innovation – Veterinary oral surgeons and biomedical engineers collaborate to successfully regrow jawbones in dogs that have lost bone to injuries or tumors—knowledge valuable for biomedical treatments in both human and veterinary medicine.

Animal Health – Bovine respiratory disease, including pneumonia, is the leading natural cause of death in U.S. beef and dairy calves—causing losses of more than one million animals and \$700 million annually. A team of veterinarians and other scientists at the Veterinary Medicine Teaching and Research Center is conducting studies to prevent, diagnose and treat this disease.





Equine Racing Safety – Equine veterinarians partner with biomedical engineers and racetrack personnel to build safer racetracks and improve equine health. Their studies help reduce injuries, breakdowns and associated medical treatments on racehorses, as well as decrease risks to the jockeys.

Vector-borne Diseases –

West Nile, dengue fever, and malaria are among ailments spread by mosquitos and cause major health concerns around the world.

Researchers with the Center for Vector-borne Diseases study these conditions to understand transmission and epidemiology, and develop new tools and strategies for surveillance and control.



Genetics – Veterinary geneticists have identified key genetic mutations in particular species to help breeders eliminate debilitating health issues. Those include:

- ▶ Cleft palate in Nova Scotia duck tolling retrievers
- ▶ Polycystic Kidney Disease in Persian cats
- ▶ Encephalopathy in Alaskan huskies
- ▶ Glycogen branching enzyme deficiency in American Quarter Horses



A team of researchers has for the first time identified a gene mutation responsible for canine subvalvular aortic stenosis, the most common inherited heart disease in dogs. This potentially lethal congenital disease also affects children. Genetic tests for determining whether a dog carries the mutation will soon be available through the Veterinary Genetics Laboratory.





Training Tomorrow's Leaders

The school is committed to excellence in teaching by creating a challenging and interactive environment. Each year, nearly 200 new veterinary professionals and scientists graduate and achieve their dreams.



- ▶ **Student-centered, inquiry-based, professional DVM curriculum**
- ▶ **Largest residency program** in the nation with 110 residents in 34 specialty disciplines
- ▶ **State-of-the-art methods in epidemiology** to investigate disease and production problems in animal populations
- ▶ **Unique opportunity** to pursue a joint DVM and Ph.D. degree through the Veterinary Scientist Training Program
- ▶ **Committed to lifelong learning** through the Center for Continuing Professional Education

Advancing veterinary medical education

Pioneering transdisciplinary research

State-of-the-art patient care

Integrating One Health approaches

UC DAVIS SCHOOL OF



Building Capacity



- ▶ Students select core and elective rotations to **fine-tune their clinical experience** and fit their future career needs.
- ▶ **Clinical rotations at the Veterinary Medicine and Teaching Research Center** in Tulare provide hands-on experience in large animal medicine within production settings.
- ▶ **DVM students serve pets** in Sacramento through Mercer Clinic for the Pets of the Homeless and companion animals in the underserved agricultural population of Knights Landing.
- ▶ **Student research and externships worldwide** provide students with cultural and global health experience working with dogs in Bali and India, parrots in Australia, donkeys in Morocco, tortoises in the Galapagos Islands, elephants in Sri Lanka and Namibia, and rural communities in Peru, Mongolia and South Africa.
- ▶ DVM students receive formal training in laboratory procedures, animal-rearing, molecular imaging and primate research through the **Students Training in Advanced Research Program** – many go on to become National Merit Scholars.



VETERINARY MEDICINE

Embracing operational best practices

Cultivating faculty and staff excellence

Building strong partnerships and multi-institutional collaborations

Clinical Services— Creating a Path of Excellence

200

Clinical faculty/residents

34

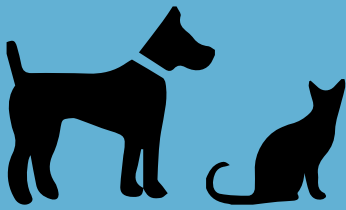
Specialty
Disciplines

50,000

Patient visits annually



CLINICAL SPECIALTIES



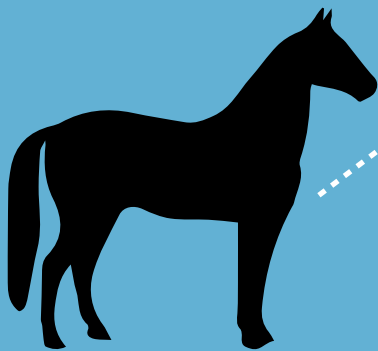
Companion Animal Services

Treats more than 40,000 small animals per year



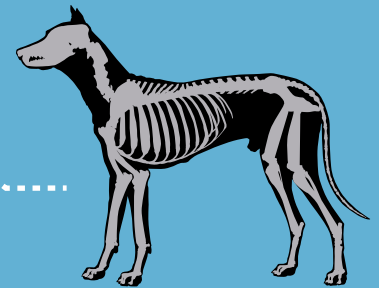
Exotics and Avian Services

Treats more than 250 different species of birds, as well as many other exotic animals



Equine Services

Largest in-house caseload of any teaching hospital in the country



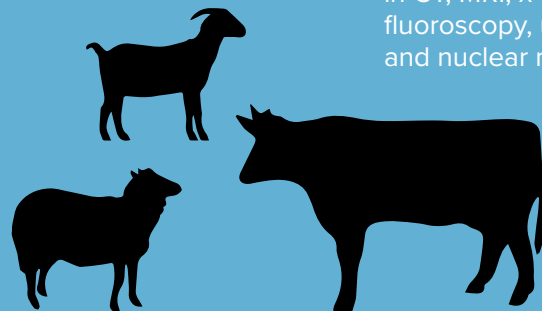
Diagnostic Imaging Services

Provides latest techniques in CT, MRI, x-ray, fluoroscopy, ultrasound, and nuclear medicine



Laboratory Services

Supports every specialty service in the hospital, as well as nationwide clientele



Livestock Services

Provides health exams for all animals showcased at the California State Fair

UC Davis provides attentive and personalized care to each animal and client at the veterinary hospital. World-renowned specialists have access to cutting-edge equipment and technology, such as the linear accelerator shown at left – the most advanced accelerator of any veterinary facility in the world. The anesthesia team includes more board-certified anesthesiologists than any other veterinary hospital in California. In all, the school is equipped to handle 34 clinical specialties including 24/7 emergency and critical care, cardiology, internal medicine, oncology, ophthalmology, and surgery.

At the Forefront of Optimal Health

The school is committed to advancing the well-being of animals, people and the environment in California and around the world



The **Aquatic Health Program** addresses the health and function of freshwater and marine ecosystems—including looking at the environmental impacts of contaminants, climate change and resource depletion. The well-being of these systems is critical as they serve as important food resources for humans.



The **SeaDoc Society**, located in the San Juan Islands, WA, collaborates with U.S. and Canadian governments, several sovereign Tribal and First Nations governments, and local industry stakeholder groups to protect the health of marine wildlife through science and education.



The **Oiled Wildlife Care Network**,

established in 1994, is the world's most comprehensive oiled wildlife organization. Its multi-faceted approach, combining strategic private-government not-for-profit partnerships, extensive readiness, and cutting-edge research, has led to internationally-recognized success.



UC Davis faculty helped spearhead the effort to establish **Shelter Medicine** as a board-certified specialty within the American Veterinary Medical Association. The school also partners with the Million Cat Challenge—a shelter-based campaign to save the lives of one million cats in North America.

The **Center for Equine Health** advances the health, well-being, performance and veterinary care of horses through research, education and public service. The center continually develops new technologies for the care and treatment of horses, and publishes educational materials for the general public and veterinary professionals.



Specialists with **Veterinary Medicine Extension** provide a vital link between researchers and county farm advisors, practicing veterinarians, animal producers and consumers. They provide teaching, research and service programs on disease prevention, production quality control, biotechnology, food safety and animal well-being.

The **UC Veterinary Medical Center – San Diego** brings specialized clinical services in hemodialysis, nutrition, cardiology, and pharmacy to veterinarians and pet owners living in Southern California.



The **California Raptor Center** rescues and rehabilitates birds of prey, such as this young golden eagle. After eight months of recovery from a rare mite infestation, she was released to the wild with a GPS tracking device to allow researchers to continue learning about her species.



Innovative & Productive Partnerships

Through vibrant collaborations with many academic, government, agricultural and business partners—both nationally and internationally—the school engages in problem-solving, enables quicker action across multiple boundaries, and makes discoveries that benefit the world.

From endangered Sumatran tigers to a flock of flamingos, the school's **Zoological Medicine Service** provides veterinary care to animals at the Sacramento and other Northern California zoos. The team annually examines nearly 600 individual animals of 158 species. The partnership also provides a dynamic training ground for students and residents pursuing careers in zoological medicine.



Offering expertise in nutrition, animal welfare, disease prevention and control, reproduction, herd management and food safety, the **Veterinary Medicine Teaching and Research Center** in Tulare provides clinical services to dairy farms (a total of more than 450,000 dairy cows) and calf ranches (approximately 70,000 calves).



Veterinary epidemiologists at the school teamed with the **California Department of Fish and Wildlife, U.S. Department of Fish and Wildlife Service and Bureau of Land Management** to institute a captive breeding program to save the critically endangered Amargosa vole—a sentinel species for the health of California's Mojave desert ecosystem.

The **Western Institute for Food Safety and Security** partners with the U.S. Department of Homeland Security to train first responders in rural areas of the country for disaster situations that involve or directly affect the food supply system. To date, the institute has trained more than 8,000 participants, in approximately 160 communities and 33 states.

Researchers in the **California Animal Health and Food Safety Laboratory System** safeguard the quality of California's milk supply. All four facilities in the network provide surveillance to protect the health and safety of the state's dairy, poultry and beef industries.

The **Center for Food Animal Health** serves as the veterinary medical component of the Agricultural Experiment Station. The center organizes resources for and conducts research on animal diseases critical to livestock industries, food-borne and vector-borne disease problems, zoonosis associated with diseases of livestock and environmental health important to the state.





At the heart of the success of the School of Veterinary Medicine are philanthropic partners—visionary leaders who share our school’s passion and commitment to improve animal health and our communities. Through their generosity, they are making an impact.

- ▶ **Scholarships and fellowships** support the veterinary leaders of tomorrow
- ▶ **State-of-the-art equipment** provides pioneering treatment
- ▶ **Research support** helps to discover innovative cures
- ▶ **Endowed chairs** invest in exceptional faculty
- ▶ **Facility improvements and expansion** modernize the school’s infrastructure, helping to sustain our position as the leader in veterinary medicine

Transforming the highest standard of care

Devoted to her guinea pigs, Marcia Messmer wants them to receive the highest standard of care. That is why she routinely travels 100 miles from her home to the UC Davis veterinary hospital. She seeks the best and most comprehensive care for her beloved companions and values the expertise of veterinarians here. As a philanthropic partner, Marcia supports the school so that we can continue unparalleled care and remarkable advances in veterinary medicine, helping her guinea pigs and other companion animals enjoy longer and healthier lives.





Investing in future veterinary leaders

Thanks to a new endowed scholarship established by Bob Haas (center back), Jose Guerrero Cota (far right) is realizing his childhood dream of becoming a veterinarian. The inspiration for the Francisco “Pancho” Lopez Scholarship was to honor long-time family friend, “Pancho” Lopez (front left), an accomplished horseman responsible for the care of some of the world’s foremost athletes in showjumping. Also pictured from the Haas family are daughter Elise (far left) and wife Colleen.

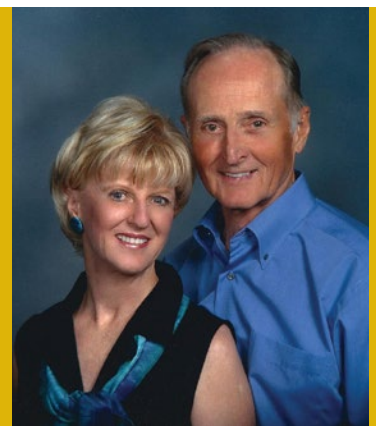


Ensuring excellence

Karen C. Drayer, a loyal and long-time friend of the school, was honored at the dedication of the newly named Karen C. Drayer Wildlife Health Center, a fitting legacy to her passion and commitment to wildlife. Karen and her husband Phil are visionary leaders in addressing complex issues of conservation and wildlife health in a changing world, and have been instrumental in shaping the center since its inception. Through their heartfelt generosity, the Drayers established a perpetual endowment that ensures the center’s excellence well into the future. Pictured from left: Dean Michael Lairmore, Karen Drayer, Executive Director Jonna Mazet, Phil Drayer and Dean Emeritus Bennie Osburn.

Advancing animal health

Inspired by their love of animals, Carolyn and Dick Randall are committed to exploring regenerative medicine as a treatment option for companion animals and horses, to alleviate suffering in animals through the repair of damaged tissues. They were instrumental in launching a veterinary regenerative medicine program that has resulted in breakthrough research with important implications for human health. Through their continuing generosity, the Randalls play a major role in advancing stem cell and regenerative medicine research at the school, recognized as a national and international leader in this area.



Making a Gift

Please contact the Office of Development at (530) 752-7024

Global Impacts

Collaboration among global communities contributes to healthy animals, balanced ecosystems, clean water and healthy food—all critical components of regional political stability and developing economies. A few examples include:

Rwanda, Uganda and the Democratic Republic of Congo – The nonprofit Mountain Gorilla Doctors program ensures the long-term health and survival of the mountain gorilla, and the human and animal communities that share their habitat.



Tanzania – The school's Health for Animals and Livelihood Improvement Project is an international team of researchers, professionals, students, volunteers, and community members working together to better understand the health risks common to humans, animals and their shared environments.

Sabana Grande, Nicaragua – One Health Nicaragua is a student-led education- and needs-based project. Workshops employ small groups in order to engage community members to share their ideas such as a poultry vaccination plan based on local weather patterns and resources.



Africa, Asia and Latin America – Avian experts and other UC Davis researchers are working together to dramatically increase chicken production among Africa's rural households and small farms, using advanced genomics to develop chickens that can resist disease and tolerate hot climates.

China – The school's collaboration with the UC Davis College of Agricultural and Environmental Sciences has been critical in establishing three major initiatives with the Chinese government and Nanjing Agricultural University in the areas of food safety, student exchange and professional education.

Serving California and the World

San Francisco Bay Oiled Wildlife Care and Education Center

School of Veterinary Medicine

California National Primate Research Center

UC Davis MIND Institute

UC Davis Comprehensive Cancer Center

Sacramento Zoo

California Animal Health and Food Safety Laboratory System

Marine Mammal Center

Veterinary Medicine Teaching and Research Center

Los Angeles Oiled Bird Care and Education Center

SeaWorld Oiled Wildlife Care Center

UC Veterinary Medical Center

Zoological Society of San Diego

★ Primary Care Facilities – members of the Oiled Wildlife Care Network

Partner Programs

UC Davis School of Veterinary Medicine

UC Davis Ranked #1
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