

Advance

UC DAVIS SCHOOL OF VETERINARY MEDICINE

Summer 2016

An artist's rendering of the Small Animal Clinic at the new Veterinary Medical Center.



Envisioning the Future

At the UC Davis veterinary hospital, we are committed to providing the highest standard of compassionate care and clinical excellence for beloved animals, from parakeets to Thoroughbreds. To carry that commitment into the future, we envision creating a new UC Davis Veterinary Medical Center (VMC)—a center of healing, innovation and discovery.

For nearly half a century, the veterinary hospital has delivered health care to animals in California and beyond. Our current facility opened in 1970, designed to serve 3,000 patients each year; our veterinarians and staff now see more than 50,000 patients annually. Our clinical expertise has grown to include 34 specialties, including 24/7 emergency and critical care, cardiology, internal medicine, oncology, ophthalmology, neurology and surgery.

Our current facility opened in 1970, designed to serve 3,000 patients each year; our veterinarians and staff now see more than 50,000 patients annually.

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Leading veterinary medicine, addressing societal needs

Commencement 2016

Congratulations to all of the new graduates of UC Davis School of Veterinary Medicine! Among those receiving degrees during the school's 65th Commencement Ceremony held in May at the Mondavi Center were 137 DVM students, 33 residents and six MPVM students.

Dean Michael Lairmore pointed out during his remarks that 16 classmates got married (with others engaged), three had four babies (one set of twins), one beat cancer over the course of the past four years, three helped create the new Knights Landing One Health Clinic and many served in remote regions of the world.

"I'm proud to tell you, you're graduating from the #1 school in the world—it's a world of great promise and also great challenges," he said.

Faculty speaker Dr. Jim Clark encouraged graduates to find happiness both inside and outside veterinary medicine; to be open to learning from colleagues and clients; and to be themselves, which doesn't mean being perfect.

"You are more than just a doctor; you are a healer," Clark said. "Listen with your head and your heart."

Matthew Wooddall represented the class as their student speaker, drawing laughs and tears. As a first generation college student, he overcame childhood cancer and a long road to get to veterinary school. In searching commencement speeches, Wooddall said he realized that most of them ended with a challenge. Then he addressed the high rate of suicide among veterinarians, recalling the death of beloved behaviorist Sophia Yin.

"While we are no longer classmates, we will always be family," he said. "Reach out when you need someone—it's on each of us to pay attention and to be there for someone if they reach out. As a family we owe it to each other. We lose no one to depression and suicide—not one. That is my challenge to all of you."



2016 Alumni Achievement Awards

Every year, the school honors alumni with Alumni Achievement Awards for outstanding personal and professional contributions to veterinary science, veterinary practice, or the advancement of human welfare. The 2016 award recipients are (from left to right with Dean Lairmore in the middle): **T. Douglas Byars**, (honored posthumously and represented by his wife Susan), for outstanding contributions to the evolution of equine veterinary practice, especially equine internal medicine and critical care; **Linda Logan**, for outstanding leadership and contributions to the global community through the promotion of veterinary medicine, animal health and international agriculture; **Danny Scott**, for pioneering clinical discoveries in veterinary dermatology; and **Ian Gardner**, for outstanding global contributions that advance the discipline of veterinary epidemiology.



Looking Forward by Dean Lairmore

Our impact in the world will be linked to our ability to nurture existing and new partnerships with government, private industry, stakeholders, community leaders, alumni, donors and the public.

As I begin my second term as dean of the UC Davis School of Veterinary Medicine, I am honored to lead an institution recognized as the global leader in veterinary medicine. As we continue to educate leaders in the field, we need to seek out ways to diversify our faculty, staff and students to fully reflect our society. We must continue to expand our innovative programs to recruit faculty, staff and students who are academically strong, but also reflect the demographics of the society they will serve.

Using a One Health approach, our school leads the world in high-impact transdisciplinary research benefitting both animals and people. Staying at the forefront of scientific discovery allows us to attract and train the brightest clinical specialists, graduate students and postdoctoral scientists who will help us understand the basis of how life processes work to create the treatments of tomorrow.

We envision the clinical environment of the future as we plan the Veterinary Medical Center (VMC). Each element of the VMC design will facilitate an integrated, efficient approach to patient care, with immediate access to new technologies to diagnose and treat our animal patients, and continually raise the standard of veterinary care.

Our impact in the world will be linked to our ability to nurture existing and new partnerships with government, private industry, stakeholders, community leaders and the public. Our leadership in protecting animal health and our food supply will require us to vigorously engage with key stakeholders in animal agriculture. Our ability to listen to, educate, and collaborate with government agencies and public representatives will strengthen our leadership position. In a time of declining state budget support, we must continue to recognize the need to develop new, sustainable sources of revenue. Philanthropy from many sources will continue to be critical for us to fully realize our goals.

Finally, our support of the well-being of our faculty, students and staff will require us to cultivate and promote a positive community climate based on mutual respect and caring in all aspects of our school. Our destiny is within us to create through our plans, dreams and actions.

Michael D. Lairmore
Dean and Distinguished Professor



Michael Lairmore

QS World University Ranking #1

For the second year in a row, **QS World University Rankings announced UC Davis as their top pick in veterinary science.** Dean Lairmore attributed the recognition in part as a reflection of the dedication of our philanthropic partners who provide generous gifts that help fund novel research, improved facilities and student scholarships.



Protecting *Racehorse* Safety

In the past 25 years, more than 6,500 horses have died as a result of injuries sustained on California race tracks. Because of these staggering numbers, the school now plays a large role in maintaining the safety and integrity of horse racing in the state of California. Through the California Horse Racing Board (CHRB), a legislative mandate allows the school to work with the board to drug test racehorses, research the effects of drug substances on racehorses, tabulate injuries and fatalities occurring at any California track, and conduct research to determine the cause and help prevent horse racing accidents.

In 1990, the California State Legislature—aiming to improve safety and welfare of jockeys and racehorses—established the Postmortem Examination Program. To fulfill this mandate the California Animal Health and Food Safety Laboratory System (CAHFS) performs a postmortem examination (necropsy) on every horse that dies spontaneously or is euthanized on racetracks or training facilities under the jurisdiction of the CHRB.

In cooperation with the J. D. Wheat Veterinary Orthopedic Research Laboratory (VORL), CAHFS has studied the causes and risk factors that led to catastrophic injuries in racehorses. The main finding of this program is that 90 percent of all fatal musculoskeletal injuries show evidence of previous injury at the site of their fatal injury. Therefore, *these fatal injuries are preventable*.

While fatalities are the extreme case, they provide essential information about lesser injuries that end the careers of far too many equine athletes. UC Davis' multi-collaborative program and related research has impacted regulations, training regiments and veterinary practices. The CAHFS-CHRB necropsy program has also provided significant data on infectious diseases and other equine medical conditions.

VORL's research focuses on musculoskeletal injuries — those that impact bones, joints, cartilage, muscles, tendons and ligaments. The team works to identify the cause and development of injuries, and the risk factors associated with those injuries. By identifying these components, the laboratory is able to design strategies for injury



The Materials Testing System tests the mechanical strength of an equine bone in the J.D. Wheat Veterinary Orthopedic Research Laboratory.

prevention. VORL's multidisciplinary team is particularly focused on factors that can be managed (race surfaces, training schedules, and horseshoes), where procedures can be put in place for injury prevention.

Currently, studies seek to understand how the type and properties of the race surface affect hoof and fetlock motions. Race surface materials are selected largely on the basis of anecdotal evidence and experience or observation rather than scientific findings. VORL's goal is to provide scientific basis for the selection of materials and effective management practices that will reduce the risk of catastrophic injury to racehorses and serious injury to the jockey. It is likely that there are also surface properties that will improve the efficiency of racing for racehorses.

Further, the laboratory recognizes an opportunity to improve race horse locomotion and welfare by focusing on hoof health, which relies on motion and flexibility. Horseshoes protect the hoof from wear but also constrict hoof motion. VORL has discovered that certain hoof conformations (e.g., long toe, low heel) put the racehorse at risk for fetlock breakdown. By discovering that hoof motion is affected by race surface properties, an opportunity exists to optimize horseshoes and race surfaces to prevent injuries.



Welcome New Faculty

Dr. Amandeep Chohan

Assistant Professor
of Clinical
Anesthesiology

Special Interests:
fluid therapy and
neuroanesthesia

**Dr. Roger Sciammas**

Assistant Professor
in the Department of
Anatomy, Physiology
and Cell Biology
and the Center for
Comparative Medicine

Special Interests:
antigen recognition;
antibody production and responses;
gene regulatory networks

**Dr. Deniece Williams**

Dairy Production
Medicine Clinician,
Veterinary Medicine
Teaching and
Research Center

Special Interests:
neonatal calf disease;
bovine respiratory
disease; mastitis; epidemiology of
infectious disease in dairy cattle



New Leadership

Dr. Maurice Pitesky was appointed assistant director for Veterinary Medicine Extension. In this position, Pitesky will help to elevate the visibility of the school's extension program among key clientele throughout California, nationally and internationally. He will also help strengthen the school's research and outreach programs among poultry and other key livestock industries, and showcase Cooperative Extension and the Agriculture and Environmental Sciences faculty projects.



Dr. Jane Sykes was appointed Chief Veterinary Medical Officer of the William R. Pritchard Veterinary Medical Teaching Hospital (VMTH), and Associate Dean of Veterinary Medical Center Operations. As Director, Dr. Sykes has administrative responsibility for the management and fiscal integrity of the VMTH, ensuring the academic quality of the clinical learning environment for DVM students and house officers, and overseeing state-of-the-art clinical care and operational efficiency of all academic and clinical service activities. Prior to this appointment Sykes was Interim Director and served as Small Animal Clinic Director of the VMTH.



Envisioning the Future Continued from page 1

As the world leader in veterinary sciences, we are committed to improving the health and well-being of animals. This transformational new facility will allow for the latest technology adoption and provide the infrastructure and efficient services to facilitate translational research that also has implications for improving human health.

The new VMC will enable our clinicians to provide exceptional care for our patients while accommodating a rapidly growing caseload. Like the existing veterinary hospital, it will serve as the intersection of teaching and discovery. During the transition, we will address constraints in space, layout and capacity so that we can continue bringing together the brightest minds and most advanced technologies.

The school is in the early planning stages of developing the physical layout of our center using a phased, sequenced approach that allows for new construction and smooth operation of our clinical services and patient care. The planning effort—guided by leadership from the hospital as well as faculty, staff and house officers—has identified major areas to be constructed in sequence over

the next 10 years. Those include:

- Livestock and Field Service Center
- Equine Performance Center
- All Species Imaging Center
- Small Animal Hospital East Wing
- Small Animal Hospital West Wing
- Community Practice and Surgery
- Equine Surgery and Critical Care Center
- Equine Isolation Unit

Planning for the first phases of the small animal, livestock, equine, and laboratory projects is underway including extensive room size validation. We are also developing designs for impending remodels to create additional exam space for small animals and exotics that are crucial to our continued successful operation.

"We envision a Veterinary Medical Center that will further enhance the compassionate care, clinical innovation, and transformational research discoveries that we see on a daily basis," Dean Lairmore said. "We envision a future of miracles."



Million Cat Challenge Reaches Halfway Milestone

Saving the lives of one million cats in North American animal shelters over five years seemed like an audacious goal, but in just two years the Million Cat Challenge is halfway there.

Founded in 2014 by veterinary faculty members Kate Hurley of the UC Davis Koret Shelter Medicine Program and Julie Levy of the Maddie's Shelter Medicine Program at the University of Florida, the challenge was designed to dramatically decrease euthanasia of cats by helping animal shelters implement five key initiatives.

More than 900 participating shelters to date have made the challenge available to all cat lovers in their communities, taking the Million Cat Challenge to the half-million milestone more quickly than anyone predicted.

"We, as a profession, learned to design better facilities, optimize operations, and market adoptable pets and services more creatively," Hurley said. "Most importantly, we've found new ways to engage the community as our partner in lifesaving."

Maddie's Fund, a leading animal welfare foundation, provided the financial support for the challenge that took the conversation from a dream to a reality that has already changed the animal sheltering landscape. Throughout the month of May, Maddie's Fund added an extra incentive of giving \$1,000 to every qualifying U.S. animal shelter that joined the challenge.

"We're incredibly grateful to Maddie's Fund for their dedication in seeing this challenge spread across the country," Hurley said. "Shelters now have strategies that are more humane, are more effective and better serve cats and communities. These strategies really work."

"By Philanthropy" Campaign

At the heart of the success of the school are philanthropic partners, who share our school's passion and commitment to improve animal health and our communities. Philanthropy helps advance work at the school and across campus in countless ways. UC Davis launched a campaign in May called *By Philanthropy* and shows how donations have made an impact. For more information, see byphilanthropy.ucdavis.edu.

Dean's Circle – Enhancements to Giving Society

This summer, the school will honor new members to the **Dean's Circle** giving society. Created to recognize donors for their generosity, the **Dean's Circle** will provide greater access to programs, events and other engagement activities for members. The society recognizes donors who contribute \$1,000 or more cumulatively during the year.



"I give to our school with the hope that the veterinarians of the future will be able to focus on their careers. This will help to ensure that the animals we serve are given the best medicine and care to improve their lives," Dean's Leadership Council member, Dr. Alison Pillsbury ('88) said. "UC Davis educates the world's greatest veterinarians, who are passionate and dedicated. We, as alumni, need to do our part to make sure that our future colleagues do an even better job than we do!"

"Philanthropy is so important to our faculty's research achievements, support for our veterinary and graduate students and provides the hospital with necessary equipment and improvements. I want to thank our donors for contributing to our excellence," Dean Lairmore said.

If you are interested in making a gift and becoming a member of the **Dean's Circle**, please contact the Office of Development at 530-752-7024 or svmdevelopment@ucdavis.edu.

Evening of Gratitude

The school hosted its annual Evening of Gratitude in April, a celebration that brings together scholarship and fellowship donors with student recipients. Thanks to the many individual, association and corporate donors, 70 percent of students received scholarship and fellowship awards totaling \$6.7 million during the 2015-2016 academic year.

Among those attending (pictured from the left) were Dr. Anjolie Daryani ('15), with canine companion Ebony, Dennis Engler, Lyudmila Golovko ('16), Dr. Michael Floyd ('61), Nancy Ehrlich, K. Keiki Cunningham ('16) and Virginia Engler. Floyd and Ehrlich generously established the Floyd Tuition Support Fund, awarded this year to Golovko, and the Whitney (Dr. Joy) Engler Memorial Endowed Financial Assistance Fund, a new award bestowed to Cunningham. Whitney's parents and Daryani, a close classmate, attended the event to honor her memory and remarkable legacy.

"Whitney was a friend of mine. We both shared a passion for behavior medicine, and among the many things she had done for me, she gave me the confidence to practice behavior medicine in Hawaii," Cunningham said. "I miss her often, and when I found out I received the Whitney (Dr. Joy) Engler Memorial Endowed Financial Assistance Fund, I cried because I knew she was still here and doing amazing things in my life."



Growing Pains

Puppies are synonymous with rambunctious energy—at least they should be. So when Daisy, a six-month-old bull mastiff, refused to get off her bed or even drink water over Labor Day weekend last fall, Channa McNiel Roe knew something wasn't right.

Channa's husband, Eric, brought Daisy to the veterinary hospital where clinicians in the Emergency and Critical Care Service started IV fluids and a morphine drip for seven days to manage her pain. After an extensive array of tests, Daisy was diagnosed with hypertrophic osteodystrophy (HOD), a developmental disease found in some large breed dogs that causes severe musculoskeletal pain. Affected canines may refuse to walk or even stand. They experience lameness, usually along with fever, lethargy and loss of appetite. Sometimes these dogs have diarrhea, puppy acne and discharge from the eyes and nose.

Seen in other breeds such as the Great Dane, boxer, German shepherd, Labrador retriever, Irish setter and Weimaraners, HOD may manifest in several episodes until complete closure of the growth plates, which usually requires hospitalization for intensive care. The harsh pain and poor quality of life, accompanied by the high costs of hospitalization, leads some owners to elect euthanasia.

Veterinarians currently diagnose HOD through X-rays and treat the disease with what's called "supportive care," or measures to control or relieve signs and side effects to improve comfort and quality of life. While there is no cure for HOD, there is hope on the horizon for finding the

gene responsible. HOD research at the Bannasch Genetics Laboratory in the Center for Companion Animal Health (CCAH) is ongoing. Dr. Noa Safra, a lover of all dogs, initiated the study when she was a post-doctoral fellow. Funding for the work comes from grants from the AKC Canine Health Foundation, CCAH and from dog lover donors.

After several months of physical therapy and medication to control pain and inflammation, Daisy can walk on soft surfaces and enjoys playing with her three human siblings again. But the Roe family is unsure of her final outcome as she approaches adulthood.

"We've had to really adjust our family's expectations of what she can do, but we still adore her—even when she eats the Legos!" Channa said.



Daisy at nine weeks old with her youngest human sibling, Daphne.

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Veterinary Continuing Education

Calendar

530-752-3905 • Fax: 530-752-6728
tweddale@ucdavis.edu

The school is committed to lifelong learning through its Veterinary Continuing Education by providing nearly 20 annual offerings.

For a complete listing of events, visit:
www.vetmed.ucdavis.edu/CE/

2016

September 24-25

Fall Festival, UC Davis

October 23-27

Explorer Series, Milan, Italy

November 6

Feline Forum, UC Davis

2017

January 7-8

Winter Conference, UC Davis

January 27-29

MATS: Clinical Cardiology,
San Diego, CA

January 28

Heumphreus Memorial Lecture,
UC Davis

Picnic Day 2016

The DVM student float was one of many school activities on Picnic Day 2016. Others activities included tours of the veterinary hospital (which drew more than 500 visitors), a Veterinary Emergency Response Team demonstration, a presence at the UC Davis Police Department's K-9 demonstrations, and the always popular Doxie Derby. Faculty, staff and students enjoyed a day of educating and entertaining visitors that included alumni, clients, prospective students, parents and members of the local community.



The Veterinary Center for Clinical Trials

The Veterinary Center for Clinical Trials is dedicated to accelerating the identification and development of diagnostics and therapeutics for the benefit of veterinary and human patients. There are 60-100 ongoing veterinary clinical trials in different specialties and species, including (but not limited to):

- Sudden Acquired Retinal Degeneration Syndrome in Dogs
- Melanoma in Dogs
- Osteoarthritis in Dogs
- Chronic Gingivostomatitis in Cats
- Upper Respiratory Tract Disease in Cats
- Bilateral Corneal Stromal Loss in Friesian Horses
- Recurrent Uveitis in Horses

For more information on these and other ongoing clinical trials, visit us on the web at www.vetmed.ucdavis.edu/clinicaltrials.



www.vetmed.ucdavis.edu

