UC DAVIS VETERINARY SCIENCE RANKED No. 1 IN WORLD AGAIN

The University of California, Davis, held onto its top spot in veterinary science in the latest QS World University Rankings. The veterinary school, also ranked No. 1 by *U.S. News and World Report*, is home to a robust research program, which last year totaled more than $56 million. The school annually provides clinical services to more than 50,000 animal patients in 34 specialties. UC Davis serves as a strong leader in veterinary medical education, providing nearly 550 DVM students annually with a curriculum built on sound educational theory designed and delivered by prominent faculty members. Making a difference around the world, the school is involved in improving the lives of people, animals and the environment in more than 30 countries worldwide through efforts such as:

- **PREDICT**, a $175 million multi-institutional program, led by the school’s One Health Institute and funded by USAID to rapidly detect and respond to emerging viruses such as Ebola.
- California Animal Health and Food Safety Laboratory System, which protects public and animal health in partnership with the state’s Department of Food and Agriculture.
- Comparative Cancer Center, where veterinary researchers collaborate with School of Medicine physicians and researchers to use therapies developed from animal models as treatments for human cancer.
- The 100K Genome Project, which aims to speed the diagnosis of foodborne illnesses by creating a databank of pathogen genome sequences.
- Collaboration among veterinary dental surgeons and biomedical engineers to regrow jawbone in dogs and provide valuable knowledge for human treatment.
- Advanced Imaging Facility (with cutting-edge confocal microscopes), providing researchers with a whole new view of biological specimens to answer questions about health and disease.

PICNIC DAY – APRIL 16, 2016

The school is offering several activities at the 2016 UC Davis Picnic Day, the annual campus open house. Faculty, staff and students will showcase an array of animal-related events for the entire family at various locations and times. Activities include:

- Guided tours - of the veterinary hospital
- Informational booths - showcasing student clubs, animal care services at the hospital, ways to support student scholarships and programs
• K-9 demonstrations - conducted by the campus Police Department to promote the **UC Davis’ Faithful Partner Fund**, which assists with the medical costs of treating K-9 officers, and research and rescue dogs, injured in the line of duty
• Emergency demonstrations - offered by **UC Davis Veterinary Emergency Response Team** will showcase its large animal rescue initiatives with a demonstration in the hospital’s horse arena
• Doxie Derby - The Class of 2018 will continue the 30+-year tradition of veterinary students presenting the dachshund race at the ARC Pavilion
• Picnic Day Parade – For more than 60 years veterinary students have created a float for the parade

NEW FACULTY

**Dr. Amandeep Chohan** joined the Department of Surgical and Radiological Sciences as an Assistant Professor of Clinical Anesthesiology. Dr. Chohan received his BVSc & AH degrees (2003) and MVSc (2005) in Clinical Veterinary Medicine from the Punjab Agricultural University in Ludhiana, India. After finishing his residency in anesthesiology and his MS degree (2006-2009) at Washington State University, he joined their faculty in anesthesiology as a clinical instructor. Dr. Chohan will provide teaching, clinical service, clinical research and service in the veterinary anesthesiology discipline. He will also provide leadership in directing research projects of residents and graduate students.

**Dr. Derek Cissell** joined the Department of Surgical and Radiological Sciences as an Assistant Professor. Dr. Cissell received his VMD from the University of Pennsylvania in 2005 before coming to UC Davis where he completed his residency in 2011 and earned his PhD in 2015. He has published 12 peer-reviewed manuscripts, authored a book chapter, and recently completed a Comparative Medical Science Training Program grant funded by NIH. Dr. Cissell will be involved in teaching the DVM professional curriculum, graduate clinical training in the VMTH, and will hold a 50% clinical assignment in the Diagnostic Imaging Service of the VMTH.

**Dr. Jennine Ochoa** joined the California Animal Health and Food Safety Laboratory System and the Department of Pathology, Microbiology and Immunology, as an Assistant Professor of Clinical Diagnostic Pathology. Dr. Ochoa received her DVM from UC Davis in 2010 and then went on to complete a residency (2015) and a PhD from Washington State University in 2016. She has been a contributing author on 10 publications with an early focus on gastrointestinal inflammation and immunology and, later, on infectious diseases and immunology. Dr. Ochoa will provide diagnostic pathology and related diagnostic service primarily for livestock and poultry veterinarians and their clients at the CAHFS-Tulare laboratory.

**Dr. Michelle Giuffrida** joined the Department of Surgical and Radiological Sciences as an Assistant Professor. Dr. Giuffrida received her VMD from the University of Pennsylvania in 2007 and completed a residency in surgery in 2011. She went on to do a fellowship in surgical oncology at the University of Florida in 2012 and obtained her Master of Science in Clinical Epidemiology – Clinical Trials Track – in 2015. Dr. Giuffrida has an aptitude for teaching, has a strong early career research record, and an excellent record of professional competence. Her areas of interest are in oncologic surgical disease and veterinary clinical trials methodology and design. She will be involved in teaching the DVM professional curriculum, graduate clinical training in the VMTH, and will hold a clinical assignment in the Small Animal Soft Tissue Surgery Service.
SCHOOL OF VETERINARY MEDICINE 2016 ALUMNI ACHIEVEMENT AWARD RECIPIENTS

Each year the school honors members of its alumni with an Alumni Achievement Award. This award is the highest honor bestowed by the school. Honorees may be graduates of the school’s DVM, MPVM, and graduate academic (M.S., Ph.D.) programs, or individuals who have completed internship and residency programs. The awards will be presented during the school’s Commencement ceremony on May 21, 2016. This year the following distinguished alumni have been selected to receive this award:

- **T. Douglas Byars**, in recognition of his outstanding contributions to the evolution of equine veterinary practice, especially equine internal medicine and critical care.

- **Ian Gardner**, in recognition of his outstanding global contributions advancing the discipline of veterinary epidemiology.

- **Linda Logan**, in recognition of her outstanding leadership and contributions to the global community through the promotion of animal health and international understanding.

- **Danny Scott**, in recognition of his pioneering clinical discoveries in veterinary dermatology.

CURRENT FACULTY RECRUITMENTS

Candidates being appointed:

- Assistant Professor of Clinical Neurology/Neurosurgery
- Professor of Infectious Diseases
- Professor of Clinical Diagnostic Microbiology

Active Recruitments:

- Professor of Developmental Cancer Therapeutics
- Professor of Neurology/Neurosurgery
- Professor of Clinical Pathology
- Professor of Dermatology
- Professor of Zoological Medicine
- Professor of Microbiology
- Professor of Small Animal Emergency & Critical Care Medicine
- Health Sciences Clinical Professor in Community Practice (2 positions)
- Professor of Clinical Analytical Chemistry
- Professor of Small Animal Internal Medicine
- Professor of Clinical Equine Ophthalmology
- Professor of Clinical Small Animal Soft Tissue Surgery
- Professor of Clinical Equine Surgical Emergency and Critical Care
- Professor of Clinical Small Animal Orthopedic Surgery
- Specialist in Cooperative Extension-Beef Cattle Herd Health and Production
- Director, California Animal Health and Food Safety Laboratory
- VMTH Director

VETERINARY MEDICINE STUDENT SERVICES AND ADMINISTRATION CENTER

Construction of the new Veterinary Medicine Student Services and Administration Center (VMSSAC) located next door to the campus arboretum is expected to be completed in September, just in time for the opening event scheduled for October 7th. The new facility will be a gathering place to exchange ideas, network...
about career options and learn from fellow students and mentors. Professional staff will provide student directed services related to pre-veterinary recruitment, admissions, scholarship and financial aid counseling, curriculum and career track selections, leadership training, tutoring and much more. The global programs team will provide guidance to students interested in international externships and our research staff will offer multiple programs for veterinary students to gain research experience and pursue graduate education. There will also be a café with a walk-up window—for those with a dog in tow—and outdoor event space. This building will complete the move of veterinary medical programs from the central campus to the Health Sciences District, enhance the services provided to students, and co-locate key administrative and leadership functions.

TRAINING FUTURE VETERINARY SCIENTISTS

Dr. Kasen Riemersma grew up with an interest in science and biology thanks to the pages of National Geographic magazine. With a B.S. in Biology and a DVM degree, his interest turned to infectious diseases, specifically those that are vector-borne. He completed an externship at the Centers for Disease Control in Colorado—an experience that led him to the school as a Ph.D. student in Dr. Lark Coffey’s laboratory.

He is now studying chikungunya virus, a mosquito-borne pathogen commonly found in East Africa and Southeast Asia, but recently causing explosive outbreaks in the Caribbean and 11 locally-transmitted cases in Florida. While the disease isn’t typically fatal, the majority of people infected have clinical signs of fever and disabling joint and muscle pain for one to two weeks—which lead to huge economic impacts in the communities where the virus is prevalent. In some cases, the joint pain persists for months to years. “My goal is to help inform future vaccine development and antiviral therapy,” Riemersma said.

Training graduate students like Riemersma is an important mission of the school where faculty serve as primary mentors to more than 170 graduate students representing a full spectrum of basic and applied dissertation projects. The school is the administrative home to four graduate groups -- Comparative Pathology, Epidemiology, Immunology, and Preventive Veterinary Medicine -- and faculty participate in more than twelve other campus based graduate programs ranging from Pharmacology and Toxicology, Neurosciences, Molecular, Cellular and Integrative Physiology, to Bioengineering and Genetics.

EVENING OF GRATITUDE

The school recently hosted its annual Evening of Gratitude event bringing donors and student scholarship recipients together for dinner and an upbeat program focused on the promise and success of our students. The evening provided a special opportunity to express appreciation to individuals, associations and corporate donors who generously inspired students though scholarship support—making it possible for more than 70 percent of the school’s students to receive scholarship and fellowship awards as they realize their dreams of becoming veterinarians. This year we distributed $2.5 million in 382 scholarship awards from gifts and endowments to DVM students. We also distributed $4.2 million in grants for a total of $6.7 million in student support. The generosity of our philanthropic partners and their investment in our students is a key component to addressing the student debt issue and making a veterinary education affordable.

VISION FOR THE VETERINARY MEDICAL CENTER

The school’s vision for the future includes the planning of a Veterinary Medical Center (VMC); a place of discovery, innovation and healing. This state-of-the-art facility will
transform the experience of our animal patients and their human companions through innovative building designs, coordinated patient care with experts in more than 34 specialties, and unique technical advances in diagnostic services. The facility will include a number of new buildings and renovation of existing facilities to achieve an optimum physical plant with a coordinated flow of activities and program adjacencies. Project construction will be choreographed to ensure that patient care operates smoothly throughout the 10-year phased plan. Planning efforts for the new VMC has identified ten project groups to be constructed in sequence:

- Small Animal Clinic Examination Rooms (Remodel)
- Large Animal Support Facility
- Livestock and Field Service Center
- Equine Performance Center
- All Species Imaging Center
- Small Animal Hospital East Wing
- Small Animal Hospital West Wing
- Community Practice Consolidation
- Equine Surgery and Critical Care Center
- Equine Isolation

Each of these structures will advance our ability to handle the large and challenging caseload, allow for the adoption of the latest technologies, and provide the infrastructure and efficient services to facilitate translational research.

**RESEARCH TRANSLATES TO CUTTING-EDGE TREATMENTS**

One of the biggest advantages the hospital can offer is the ability for their patients to benefit from the vast research being conducted at the university. This research often translates into innovative procedures aimed at improving animal health or saving animals in dire situations. Many of these groundbreaking procedures are offered via the Veterinary Center for Clinical Trials (VCCT), which seeks to advance patient care in a variety of disciplines, encompassing the wide array of services available in the hospital. More than 60 new trials are currently being conducted.

Clinical trials allow veterinarians to evaluate new scientific breakthroughs that have the potential to improve the diagnosis and treatment of diseases, and assess promising new treatments, drugs or procedures.

A current trial showing tremendous success is a new treatment for a debilitating oral disease in cats, *feline chronic gingivostomatitis*. The technique involves taking a cat’s own fat-derived stem cells, processing and characterizing them, and then giving them back intravenously to reduce inflammation and promote tissue regeneration. “We’re the first researchers to come up with this patent-pending technique for any mammals, including humans,” said Dr. Boaz Arzi of the Dentistry and Oral Surgery Service.

A recently completed clinical trial by Dr. Michele Steffey of the Soft Tissue Surgery Service led to an alternative treatment for *nasal adenocarcinoma*, a cancer in dogs’ nasal cavities. This new approach to treating nasal tumors involves a minimally-invasive method of killing the tumor by freezing it with cryoprobes.

Two recent studies were successful in leading to the creation of genetic tests that determine the possibility of *subvalvular aortic stenosis in Newfoundlands* (conducted by Dr. Joshua Stern and the Cardiology Service) and *encephalopathy in Alaskan huskies* (conducted by Dr. Karen Vernau and the Neurology/Neurosurgery Service). Other trials at UC Davis include:

**Osteosarcoma in Dogs** - Dr. Michael Kent is recruiting for dogs diagnosed with osteosarcoma. The trial focuses on finding a way to slow or stop the spread of the tumor to the lungs.
**Osteoarthritis in Dogs** - Dr. Duane Robinson is recruiting for osteoarthritis in dogs to test two investigational medications to determine if either one, or both, work to potentially decrease signs of pain of osteoarthritis.

**Bilateral Corneal Stromal Loss in Friesian Horses** - Dr. Mary Lassaline is recruiting Friesian horses diagnosed with bilateral corneal stromal loss (BCSL) to determine the incidence of BCSL in the breed, the mode of inheritance if a single gene is involved, and identifying candidate genes for further investigation.

**Leopard Complex Spotting in Appaloosa Horses** - Dr. Rebecca Bellone is recruiting for leopard complex spotting in Appaloosa horses, which is characterized by the progressive loss of pigment and has been associated with uveitis and night blindness in several breeds of horses. This trial will investigate the morphology of the pigment producing cells (melanocytes) and determine if any ultrastructural differences exist among varying Appaloosa genotypes.

**UC DAVIS VETERINARY SURGEONS UTILIZE ARTIFICIAL URETER IN KITTEN**

Googgie, a 17-week-old spayed female Sphynx, was brought to the UC Davis veterinary hospital following a three-day bout of inappetence, lethargy and vomiting. Originally seen by the Emergency and Critical Care Service, she was noted to have an enlarged, painful left kidney. With ultrasound, it was discovered that an obstruction of the left ureter was preventing flow of urine to the bladder.

Specialists from the Soft Tissue Surgery Service were brought in to review Googgie’s case and work with the Anesthesiology Service to prepare her for surgery. After opening Googgie’s abdomen, surgeons were able to see the extent of the damage to her ureter. A traumatic stricture (scarred down area) was present around the ureter, preventing it from being open. Dr. Bill Culp and his team had success previously in dogs and cats with a relatively new procedure creating an artificial ureter using catheters, and they were hopeful it would succeed in a kitten as well.

Bypassing the natural ureter, Dr. Culp was able to create two distinct ends of a new ureter with tubing – one end coming from the kidney, one end leading into the bladder. The two pieces were connected with a titanium shunting port that was placed just under the skin for easy access for collecting urine samples from the system. Known as a subcutaneous ureteral bypass (SUB), the system has primarily been utilized in older animals. The longevity of the system for longer installation into young animals is unknown, and Googgie’s device will need to be monitored long term to ensure functionality.

Tests following the successful surgery showed normal kidney function. At her three-month recheck she continues to recover well. Her weight had doubled and she is growing like a normal cat. While the surgeons did need to open Googgie’s abdominal cavity to perform the surgery, they were able to place the implant minimally invasively, and utilize interventional radiology to help guide the procedure.

**DVM STUDENTS HONORED WITH ZOETIS SCHOLARSHIPS**

Marlene Belmar, Class of 2018, was one of the 15 students who received a Zoetis Veterinary Student Scholarship—a program partnership between Zoetis and the Association of American Veterinary Medical Colleges. Now in its sixth year, this program recognized 353 second- and third-year veterinary students at the 2016 Student American Veterinary Medical Association (SAVMA) Conference – awarding more than $700,000 in scholarships.
Generous awards like these help the school’s young professionals achieve their dreams and also shape the future. Zoetis offers financial rewards to dedicated veterinary students who are already making outstanding contributions to the veterinary profession and to the overall well-being and medical care of animals. To date, this program has awarded over $5.2M in scholarships to more than 2,000 students. This year, the scholarship recipients reflect a broad range of professional interests including:

- 31% - racial and ethnically diverse backgrounds
- 30% - studying mixed animal medicine
- 9% - studying to practice food animal medicine
- 28% - entering small animal practice
- 13% - entering equine exclusive clinical practice
- 7% - entering academia (research and clinical), public health, or government
- 15% - other areas, such as zoo/exotic, lab animal, wildlife, etc.

**TULARE DIAGNOSTIC LABORATORY DEDICATION – JUNE 8, 2016**

The dedication of the new Tulare Branch of the California Animal Health and Food Safety Laboratory System (CAHFS) is planned for June 8th. The event will begin at 11:00 a.m. with the dedication ceremony to be followed by lunch and building tours. This new lab, located adjacent to the Veterinary Medicine Teaching and Research Center, will be an integral part of the CAHFS system. The lab will accept avian and mammalian sample submissions for complex diagnostic procedures to support ongoing food production industries, flock and herd health monitoring, food safety programs and surveillance for foreign and emerging diseases. Lab services will include Necropsy, Bacteriology, Histology, Antigen Detection, Immunology, Biotechnology, and Metabolomics testing. This project continues the long-term partnership between the university and the California Department of Food and Agriculture in protecting human and animal health.

**MEETING CHALLENGES FACING ANIMAL AGRICULTURE**

The school’s Center for Food Animal Health gathered faculty and representatives of California’s animal agriculture industry in February for a day-long advisory meeting focused on livestock, poultry, small ruminants and aquaculture. Participants received updates on food animal diseases, food safety, environmental health, and helped identify the latest, most important issues and needs in food animal health and production for focused research efforts.
Over the last 40 years, the center has provided seed funds to support new and innovative research to improve the health of food animals and solve problems impacting the state’s livestock and poultry industries, and environmental health. It also promotes collaboration among school faculty researchers. Current projects include:

- intranasal vaccine development for pinkeye in cattle
- mitochondrial markers in calves for feed efficiency
- alternatives to antimicrobial therapy
- colostrum management practices in organic dairy calves
- Infectious Bronchitis Virus (IBV) variants in California poultry
- risk mapping of Avian Influenza reservoirs for waterfowl surveillance
- shellfish microbial standards
- pathogen occurrence evaluation in Tomales Bay to help guide aquaculture policy development
- on-farm food safety

Partners represent a wide range of livestock industry and commodity groups including the California Cattlemen’s Association, Dairy Cares, the California Farm Bureau Federation, Western United Dairymen, the California Department of Food and Agriculture, the USDA, and California Poultry Federation.

FROM THE RANCH TO HOMELAND SECURITY

Dr. Roxann Brooks Motroni’s dream of becoming a veterinarian would lead her to a fellowship within the U.S. Department of Homeland Security. But thinking outside-the-box about her career choices and pursuing research opportunities led Motroni to the school’s Veterinary Scientist Training Program (VSTP) where she completed a Ph.D. in Comparative Pathology (2012) and a DVM (2013).

The VSTP offers dual DVM-Ph.D. degrees to the next generation of veterinary scientists as they pursue careers in academic veterinary medicine, biomedical research and government service. UC Davis combines rich pre-clinical and clinical training with a strong commitment to basic and translational research.

With a passion for both wildlife and infectious disease studies, Motroni joined Dr. Jeff Stott’s lab. Stott had been working for decades on developing a vaccine to prevent foothill abortion (FA) in cattle. Motroni helped find genes for a recombinant vaccine and developed a mouse model so they could screen vaccine candidates faster. She also helped design and participate in the first live cow field studies that proved the efficacy of the vaccine before the USDA field trials were initiated.

Motroni now serves as an AAAS Science and Technology Policy Fellow with the U.S. Department of Homeland Security, Agriculture Defense Branch. They fund research and development of vaccines, diagnostics and other countermeasures to help protect the country from high-consequence animal diseases that are foreign to the U.S. and could cause economic devastation. Her main project is working on an international field trial to test a novel foot-and-mouth disease vaccine.

INTERNATIONAL RENAL WEEK

The school’s Center for Continuing Professional Education and the International Renal Interest Society (IRIS) presented IRIS Renal Week, an internationally recognized nephrology conference that features topical issues in renal medicine presented by world leaders in the field. IRIS was created to advance the scientific understanding of kidney disease and
help veterinary practitioners better diagnose, understand and treat renal disease in cats and dogs. Topics and highlights of the week included:

- CardioRenal syndromes
- Mineral and bone metabolism in kidney failure
- Diagnostic biomarkers for acute and chronic kidney disease
- Revelations from the 2015 IRIS Napa Meeting
- Linkages between acute and chronic kidney disease
- Advances in extracorporeal therapies
- Interactive extracorporeal laboratories
- Keynote speakers from human nephrology

IRIS Renal Week was preceded by a two-day Hemodialysis Boot Camp for the dialysis beginner. Faculty members Larry Cowgill, Bill Culp, Joao Orvalho, Carrie Palm, and Sheri Ross lectured throughout the week, along with dozens of veterinarians and physicians from multiple countries. One of the organization’s primary objectives is to establish an internationally recognized set of guidelines on the diagnosis and treatment of renal disease in small animals.

UPCOMING CONTINUING PROFESSIONAL EDUCATION

- May 21-22 - Beginning Practical Ultrasound, UC Davis
- June 4-5 - Biomedicine Symposium, UC Davis
- July 23-24 - Back to School Seminar, UC Davis
- September 24-25 - Fall Festival, UC Davis


DON LOW FELLOWSHIPS OFFER UNIQUE TRAINING OPPORTUNITIES

The veterinary hospital annually offers advanced training opportunities for veterinarians through the Don Low/CVMA Practitioner Fellowship. The program provides 20 days of in-depth continuing education (CE) in a specialty service of the fellow’s choice. The fellowship can be completed on a flexible basis, and earns the participant 72 hours of CE credits.

For Dr. Tom Hansen, a Don Low Fellow in the Diagnostic Imaging Service, it has been a great opportunity for him to increase his skills in small animal abdominal ultrasound and radiology. A UC Davis graduate, Dr. Hansen recalls working with past Don Low Fellows while he was a student. “One of the benefits of the program is the high and diverse caseload at the VMTH,” said Dr. Hansen. “In a single day, you can see several different types of cases and species.”

The fellowship allows a more in-depth and detailed approach to lifelong learning by immersion into a focused area of the fellow’s choosing alongside faculty, staff, and students. The fellowship—a joint activity between the school and the CVMA—is designed to meet practitioner needs not available within residencies or other advanced training programs. It is named after Dr. Donald G. Low who served on the faculty from 1974-1991. For more information: [www.vetmed.ucdavis.edu/ce](http://www.vetmed.ucdavis.edu/ce).
HOUSE OFFICERS PRESENT RESEARCH STUDIES

UC Davis veterinary hospital house officers (interns, fellows, residents) presented their research studies at the 38th Annual Gerald V. Ling House Officer Seminar Day. The day-long event featured short presentations to fellow house officers, faculty, staff, students and guests.

Having the ability to do research is a major advantage of the school’s advanced clinical training program; the largest and most diverse resident program in the country. This year, 34 studies covered a huge breadth of topics including:

- Preliminary evaluation of the effect of acupuncture on acoustic electromyographic recordings of the middle gluteal muscle in five sport horses
- Cardiac troponin I in neonatal thoroughbred foals with rib fractures
- Factors affecting outcome of ultrasound-guided radiofrequency heat ablation for treatment of primary hyperparathyroidism in dogs
- Efficacy and pharmacokinetics of intravenous famotidine in adult cattle
- Clinical application of cone beam computed tomography in rabbits
- Prevalence and prognostic implications of circulating nucleated red blood cells in cats

With the hospital’s high patient caseload (50,000 per year), UC Davis is able to offer one of the most advanced clinical training experiences for house officer veterinarians anywhere in the world. Upon completion of a residency program and passing of examinations, these veterinarians become board-certified specialists in their particular field of interest. UC Davis is currently training 109 house officers from 21 states and 20 countries (6 continents).

PLANTING A GLOBAL AFFAIRS SEED GRANT YIELDS BIG RETURN

Mighty things grow from small seeds, as a team from the school’s One Health Institute discovered recently in Nepal. Drs. Jonna Mazet and Joseph Gaydos had the satisfaction of seeing a project they implemented with the help of a UC Davis Global Affairs seed grant serve as a catalyst for additional funding from the World Wildlife Fund to aid Nepal’s Department of National Parks in improving that country’s wildlife health and conservation.

Mazet and Gaydos used the 2013 seed grant to develop a long-term sustainable international collaborative research and education program that improves wildlife health in Nepal. The program was designed in response to the need to improve Nepal’s capacity to handle local wildlife health issues—including addressing diseases that go between wildlife and domestic animals and humans, as well as capturing and transporting wildlife for conservation. The project also helped get ministers and politicians to help enact policy changes, like creating veterinary positions in national parks and conducting training and an introduction to wildlife health in the Nepali veterinary curriculum.

“With a relatively small amount of time and money, UC Davis was able to export wildlife health capacity to another country,” Gaydos said. “These efforts will not only benefit wildlife conservation, but human health and the well-being of domestic animals.”
The UC Davis Global Affairs Office established the Seed Grants for International Activities to give life to bold ideas in international programs. It has also helped faculty forge important external relationships with leading universities around the world, government agencies, industry, and other community and non-governmental organizations. Three more projects from the school were selected to receive seed grants in 2016.

- **International collaborative research and training partnerships to resolve the emerging global threat of tick-borne disease.** We propose to extend an existing international partnership between UC Davis with the Fondazione Edmund Mach in Italy to address knowledge gaps about Lyme disease, the most common vector-borne disease in North America and Europe.

- **Youth Programs to Improve Food Security in Rural Nicaragua, Using Poultry as a Model.** One Health Nicaragua is an interdisciplinary team seeking to address food insecurity in Sabana Grande, Nicaragua by improving poultry health and management to increase meat and egg production.

- **Kinigi Farms: A One Health Demonstration Project.** This seed grant will create a field course composed of UCD and University of Rwanda students and faculty to focus on establishing what we are calling “Kinigi Farms,” a cooperative community (similar to a kibbutz) intended to promote human health, animal health and financial wellbeing for Kinigi Farm’s Rwandan members. Our first project will focus on childhood nutrition and safe dairy production to decrease childhood diarrhea.

### CANCER GENE TWICE AS LIKELY TO BE DEFECTIVE IN CHILDREN WITH AUTISM

A large study by researchers with the UC Davis MIND Institute has found that a gene whose role is to suppress cellular damage from environmental stressors is nearly twice as likely to be defective in children with autism spectrum disorder (ASD), and that the deficit is also present in their fathers. The study is published online in *Pediatrics*, the journal of the American Academy of Pediatrics. The research was conducted in 2- to 5-year-olds using blood samples from 66 children with autism and their parents and 46 same-aged typically developing children and their parents, all of whom participate in the Childhood Autism Risks from Genetics and Environment (CHARGE) Study at UC Davis.

“In the presence of some type of environmental stressor, the tumor suppressor p53 stops cell division to allow the repair of damaged DNA,” said senior study author Cecilia Giulivi, professor and director of the Redox Biology Lab at UC Davis, and an affiliate of the MIND Institute.

At the UC Davis MIND Institute, world-renowned scientists engage in collaborative, interdisciplinary research to find the causes of and develop treatments and cures for autism, attention-deficit/hyperactivity disorder (ADHD), fragile X syndrome, 22q11.2 deletion syndrome, Down syndrome and other neurodevelopmental disorders. The study was supported by a grant from the Simons Foundation Autism Research Initiative and National Institute of Environmental Health Sciences grants.

### KNIGHTS LANDING CLINIC HONORED WITH ONE HEALTH IN-A-MINUTE AWARD

Congratulations to the Knights Landing One Health Clinic for their selection as a Clinical and Translational Science Award One Health Alliance (COHA) One Health In-a-Minute Program Awardee! In being selected for this honor, the clinic will have the funds and support to develop a professional video and accompanying manuscript for human medicine journals that will showcase a compelling One Health story illustrating synergy between the veterinary and other scientific communities.
"We are thrilled to have this unique opportunity to share the valuable work our students are doing with the Knights Landing Community," said Paulina Zielinska, director for Global Programs at the school and PI for the Knight's Landing clinic.

The mission of COHA is to advance understanding of diseases shared by humans and animals. COHA institutions are those that have multiple health professions and have an NIH-funded Clinical and Translational Science Award (Colorado State University, Cornell University, Ohio State University, North Carolina State University, Tufts University, UC Davis, University of Florida, University of Minnesota, University of Pennsylvania, University of Wisconsin, Madison).

This alliance, formed by the veterinary schools of these 10 CTSAs, leverages the expertise of physicians, research scientists, veterinarians, and other professionals to find solutions for medical problems and addresses the wellbeing of humans, animals, and the environment. The goal of this program is to identify three compelling One Health stories that best showcase the synergy between the veterinary and other scientific communities. The Knights Landing Clinic was one of only three awardees for 2016, chosen from schools across the U.S., to present strong multidisciplinary stories that represent a spectrum of One Health activities.

**RECENT NEWS**

Wild Orcas May Soon Get Personal Health Records

Experts Respond to Concerns About Zika Virus at Sacramento Event

From Pets to People: Stem Cell Work Gives Humans Hope

UC Davis Veterinary Oral Surgeons Repair Dog’s Crushed Skull

UC Davis Veterinarians, Physicians Join Forces to Treat Cancer in Pets, People

Biomedical Startup Raises $1 Million toward Revolutionizing Anesthesia
[http://gsm.ucdavis.edu/Expanesthetics](http://gsm.ucdavis.edu/Expanesthetics)

UC Davis Helps Nevada Rancher Introduce Gascon Cattle to United States

UC Davis School of Veterinary Medicine General Brochure