

10TH ANNIVERSARY

Koret Shelter Medicine Program Emulated throughout the Nation

The Koret Shelter Medicine Program was the first veterinary program in the world to concentrate on the prevention of disease problems of pets in animal shelters. Since its inception in 2001, the program has led the way for incorporation of shelter medicine training in more than half of the veterinary schools in North America.

Personnel of the program have carried out dozens of comprehensive on-site evaluations for shelters across the nation, reaching shelters caring for over 400,000 animals each year. Through the program's website, staff members have responded to thousands of questions by e-mail and consulted by telephone with shelter veterinarians and private practitioners throughout the world about shelter animal health.

The program has three main components:

- Study of infectious diseases and behavioral problems in shelter animals to determine how to prevent or manage them
- Education, encompassing residencies, externships, academic and continuing education courses, presentations and online scientific resources
- Consultation and diagnostic services to directly improve shelter animal health

Continued on page 3



Kate Hurley, director, and Mike Bannasch, program coordinator, wrote chapters for the first shelter medicine textbook, *Shelter Medicine for Veterinarians and Staff*; Hurley co-edited *Infectious Disease Management in Animal Shelters*. Hurley, second from left, is pictured with Jyothi Roberts, DVM, Danae Wagner, DVM, and Bannasch.

Students Training in Advanced Research: STAR

The STAR (Students Training in Advanced Research) Program coordinates and offers funding opportunities on a competitive basis to veterinary students

to experience veterinary and biomedical research during the summer months.

By completing a 10-week summer research project with a faculty mentor, participants pass through a gateway to all aspects of biomedical research:

- Scientific posters and oral presentations
- Library and literature research
- Laboratory techniques
- Study design and methods
- Ethics
- Grantsmanship
- Self-direction
- Critical review and assessment

Participants may be new to the laboratory setting or already on their way to

careers in the research field. Highlights of 2010 include:

- Thirty-eight students participated thanks to funding from the school, the National Institutes of Health, Morris Animal Foundation and Merial.
- Sixteen participants attended the Merial-NIH National Veterinary Scholars Symposium. Becky Lee and Lu Dao earned "best poster" awards for their projects on canine malignant melanoma (Lee) and glioblastoma (Lao).
- Russell Sakai's investigation into the "Effect of colostrum volume on absorption of glucose in calves fed by oroesophageal

Continued on page 3

IN THIS ISSUE

Rare Facial Defect in Dog..... 2

Resources for Urinary Problems..... 4

Welcome New Faculty..... 5

Food Safety Award..... 6

2011 Continuing Education Calendar..... 8

Dental Surgeons Repair Rare Facial Deformity

In January 2010, a young English springer spaniel found wandering a rural road in Southern California was brought to a shelter in San Ysidro. The dog had a rare birth defect that combined a primary cleft palate with a nose that appeared to be divided into two pieces (a bifid nose). Shelter personnel struggled to give the dog oral medications to combat a kennel cough outbreak then underway and then worked to clear up a sinus infection in the dog. The only solution for the spaniel's fundamental problem, however, was surgery.

Fortunately for "Tug," who picked up the name because of his ability to tug at one's heartstrings, volunteers from English Springer Rescue America took an interest. The group arranged for Mary Turner, a volunteer based in Vacaville, to bring Tug to the William R. Pritchard Veterinary Medical Teaching Hospital, where several of her own spaniels have been treated.

A unique defect

Frank Verstraete, professor of veterinary dentistry and oral surgery, and then-resident Boaz Arzi performed what may be a unique series of procedures to correct the cleft in Tug's palate and simultaneously repair his nose. "The nose problem is quite rare," Dr. Verstraete explains. "We have not seen it reported in the literature except in some South



Before surgery, the gap between the two sides of Tug's nose is visible.



Tug gets a checkup October 25, 2010 with (from left) student Nayeli Rojas, Chief of Service Frank Verstraete, staff veterinarian Boaz Arzi, and caregivers Mary Turner and Harry Griffin.

American breeds. However, the cleft palate made it a medical problem. So we decided to perform surgery." The veterinarians adapted techniques of human facial surgery to repair the defects. The procedure took more than four hours to complete.

An extraordinary effort

Born with this singular and life-threatening condition, the homeless Tug could have been lost at many points in his early life. Instead, shepherded from street to shelter to foster home to veterinary hospital by caring individuals and proficient clinicians, Tug can now breathe, chew and swallow normally for the first time.

"The procedure went well, and he has healed nicely with no complications," Verstraete says.

At his last checkup, Turner said that she would adopt the lively spaniel. "He needs socialization. After today, Tug wants to meet some dogs."

Partnering with Rescue Organizations

The William R. Pritchard Veterinary Medical Teaching Hospital works closely with rescue organizations such as English Springer Rescue America to arrange payment of what can be costly procedures. Some of Tug's care was supported by the hospital's George and Louis Root Endowment, which provides a small amount of supplemental funding specifically for animals in the care of rescue organizations. Donations to this fund are always welcome.

https://secure.vetmed.ucdavis.edu/public/E_Gifts/giving.cfm or svmdevelopment@vetmed.ucdavis.edu

\$1 Billion UC Davis Campaign

Citing the "unprecedented opportunity to further a bold vision for this university," Chancellor Linda Katehi announced October 22 that UC Davis will raise \$1 billion by 2014.

The Chancellor presided over a series of high-profile events that formally kicked off the public phase of the campus's first comprehensive fundraising effort, The Campaign for UC Davis.

THE
CAMPAIGN FOR
UC DAVIS

Shelter Medicine Continued from page 1

Hurley's mission is to create a community in which no animal dies simply because it loses its home, and one in which all shelter animals, no matter how long they stay at a facility, receive the best possible care.

Often definitive diagnostics and straightforward recommendations can result in dramatic improvements. In 2006, for example, program personnel helped a shelter in Las Vegas identify the cause of an outbreak of hemorrhagic pneumonia that had killed more than 1,000 dogs, and offered recommendations that included vaccinations on intake and changes in cleaning practices. Within three months, comfort and health of cats and dogs at the shelter improved dramatically, and the number of animal deaths declined by more than 1,100 compared to the previous year.

Working with scientists at the universities of Wisconsin and Florida, Hurley and her colleagues pioneered an innovative use of antibody testing to minimize the need for euthanasia in controlling deadly outbreaks. Sandra Newbury, who became the program's national shelter medicine extension veterinarian in 2007, has created a data collection and statistical tool for evaluating shelter health management. Hurley and Newbury are members of a national panel that published the first *Minimum Standards of Care for Shelter Animals*.

The UC Davis shelter medicine program operates entirely through the generosity of donors. The Koret Foundation of San Francisco has been the largest supporter of the program at UC Davis and is currently offering to match up to \$400,000 of donations. You can obtain more information by visiting www.sheltermedicine.com or calling (530) 752-7024.

Funds from the campaign will increase student scholarships and financial aid; create new endowed chairs and professorships; enrich teaching and research; improve patient care; enhance the university environment through improvements in facilities, library materials, art and scholarly collections and equipment; and allow the campus to act on emerging opportunities.

UC Davis receives about 20 percent of its budget from the state, but depends on gift support to supplement this core funding. Private support accounts for less

than 7 percent of the university's budget.

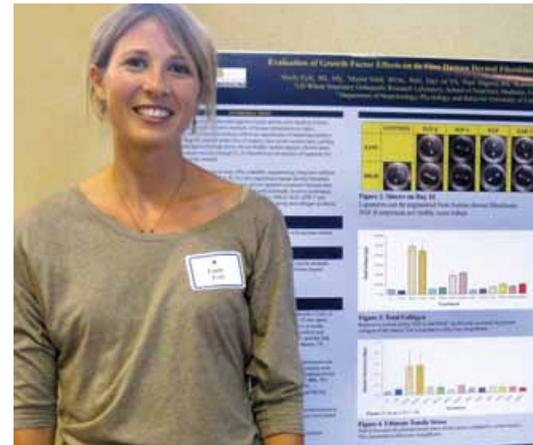
The School of Veterinary Medicine's commitment to the fundraising challenge is to raise \$160 million, 16 percent of the campus total. Each gift to the school since July 2006 counts towards the goal in The Campaign for UC Davis. "We are grateful for our many alumni, friends, grateful clients, businesses and foundations who generously contribute to the school through philanthropic gifts. We hope to have continued support from our friends and donors at increasing levels," says Dean Bennie Osburn.

STAR Continued from page 1

tubing" resulted in a surprise; absorption and immunity did not appear reduced when calves received less colostrum.

- Terza Brostof traveled to Switzerland to learn specialized techniques in virology at one of the world's only high-containment laboratories.
- Jessica Johnston researched the Lyme disease bacteria in the Center for Comparative Medicine and reports of her first time in a lab, "I learned an impossible number of skills."
- 2010 marks the first time that students from other veterinary schools participated: Carine Laporte, University of Pennsylvania, worked on platelet function in cats with hypertrophic cardiomyopathy.
- Saskia Geelen of the University of Utrecht in the Netherlands joined faculty of the Companion Avian and Exotic Pet Service in a project dealing with the effects of tramadol, a pain reliever, on Amazon parrots.

At the STAR poster session in September, Emily Fyfe explained factors involved in the growth of equine stem cells in the laboratory.



Among the top five donors during the leadership phase of the campaign is an anonymous estate gift, which contributed \$5.9 million toward the Small Animal Clinic in the William R. Pritchard Veterinary Medical Teaching Hospital.

To date, more than \$605 million has been raised towards the campus' \$1 billion goal. The School of Veterinary Medicine has passed the \$80 million mark at the midpoint of the 8-year campaign.

For more information about giving: www.vetmed.ucdavis.edu/development.

A Focal Point for Treating Urinary Tract Disorders

The late Gerald V. Ling spent 40 years on the School's faculty laying the foundation of small animal urology. Jodi Westropp, associate professor in the Department of Medicine and Epidemiology, benefits from Ling's scientific legacy and continues to make progress in this evolving field. She spends the majority of her clinical time on urinary cases and provides a professional focal point for diagnostics, veterinary care and research. Westropp is particularly interested in diseases of the lower urinary tract: canine and feline urolithiasis, feline idiopathic cystitis and canine urinary incontinence.

Laboratory services

Veterinary practices and laboratories throughout the United States and several foreign countries call upon the Gerald V. Ling Urinary Stone Analysis Laboratory to identify the composition of bladder and kidney stones (uroliths) removed from animals. A geologist in the laboratory can identify dozens of different types of minerals found in stones using analytical techniques such as polarized light microscopy, infrared spectroscopy and x-ray diffractometry. Veterinarians may submit account information and patient data directly through the laboratory's website, www.vetmed.ucdavis.edu/usal/index.cfm. "Providing an accurate stones analysis is essential to develop a tailored management prevention strategy for each pet," Westropp explains.

The group deals with urinary stones in cats, dogs, guinea pigs, turtles—even dolphins. For specific questions related to urinary stone disease, contact stonelab@ucdavis.edu.

Novel treatments

Many owners ask for a minimally invasive way to remove uroliths from dogs and cats. Besides traditional surgery, faculty



Staff member Ms. Dee Johnson makes a photographic record of kidney stones in the G.V. Ling Urinary Stone Analysis Laboratory.

clinicians offer voiding urohydropropulsion for animals with small bladder stones. Veterinarians can also remove small stones using a basket inserted through a cystoscope. Finally, clinicians may recommend laser lithotripsy to break up and remove urinary stones. These approaches employ minimally invasive techniques that may allow a patient to be discharged the same day as the procedure.

Lasers can also be used to treat ectopic ureters and polypoid masses. In one case at the William R. Pritchard Veterinary Medical Teaching Hospital, "Dash," an 11-year-old male cairn terrier, needed a transfusion due to severe bleeding from his lower urinary tract. A cystoscopy revealed a polypoid mass in his urethra where it curves around the pelvis. Surgery in that location would have posed serious risks, so Drs. Westropp, Carrie Palm, William Culp and Erica Queen used the Holmium: YAG laser to twice resect the mass. Dash continues to do well as the owners monitor his progress.

Continued on next page



Several types of minerals can form into kidney or bladder stones.

Welcome NEW FACULTY

Kristin Clothier

Assistant Professor of Clinical Diagnostic Microbiology, California Animal Health and Food Safety Laboratory—Davis Pathology, Microbiology and Immunology



Education

- PhD, veterinary microbiology, Iowa State University, 2010
- DVM, UC Davis, 1991
- BS, animal science, UC Davis, 1987

Experience

- Adjunct instructor, Iowa State University, 2006-2010
- Veterinarian/Owner, Berryessa Veterinary Services, Winters, California, 1997-2006
- Associate veterinarian, Mid-Valley Veterinary Services, Vacaville, California, 1996
- Associate veterinarian, Antioch Veterinary Hospital, California, 1993-1996
- Associate veterinarian, Lemoore Animal Clinic, California, 1991-1993

Specialty

- Diagnostic microbiology
- Bacterial pathogenesis
- Molecular evolution of bacterial pathogens

Akinyi Nyaoke

Assistant Professor of Clinical Diagnostic Pathology, California Animal Health and Food Safety Laboratory—San Bernardino Pathology, Microbiology and Immunology



Education

- PhD, pathobiology, College of Agriculture and Natural Resources, University of Connecticut, 2010
- MSc, wild animal health, Royal Veterinary College, University of London, and Institute of Zoology, Zoological Society of London, United Kingdom, 1999
- BVM, College of Agriculture and Natural Resources, University of Nairobi, Kenya, 1994

Experience

- Resident in veterinary anatomic pathology and PhD candidate, University of Connecticut, 2003-2010
- Visiting research scientist, Center for Aquatic Biology and Aquaculture, UC Davis, 2009
- Research associate and zookeeper, London Zoo and Whipsnade Wild Animal Park, Institute of Zoology, 2006-2009
- Pharmaceutical sales representative, Eli Lilly & Co., Nairobi, 1996-1998
- Pharmaceutical sales representative, Amoun Pharmaceuticals, Nairobi, 1995-1996
- Veterinarian, Nairobi, 1994-1998

Specialty

- Pathobiology of aquatic animals
- Fungal diseases

E. Scott Weber III

Associate Professor of Clinical Aquatic Animal Medicine Veterinary Medicine and Epidemiology



Education

- MSc, (with distinction, aquatic veterinary science, Institute of Aquaculture), University of Stirling, UK, 1999
- Advanced Summer Program in Immunology, UC Berkeley, 1998
- Postgraduate research in immunology of ruminants to infection with *Theileria lestoquardi* University of Edinburgh 1997-1998
- VMD, University of Pennsylvania, 1997
- BS, zoology, UC Davis, 1992

Experience

- Associate veterinarian, UC Davis, 2007-2010
- Head veterinarian and research scientist, New England Aquarium, 2001-2007
- Animal health manager, New Jersey State Aquarium, 2000-2001
- Fish health specialist, University of Arkansas, 1999-2000

Specialty

- Medicine and surgery of ornamental fish and other aquatic species; zoo medicine
- Infectious diseases in freshwater and marine species: fish, amphibians, reptiles and invertebrates
- Aquatic animal health and aquaculture health economics
- Koi herpesvirus and iridovirus in ornamental fish
- Hypothermia and rehabilitation in sea turtles
- Disease surveillance of wild marine mammal populations
- Conservation medicine and ecosystem health
- Invasive aquatic species management

Urinary Tract Disorders

Continued from page 4

Recruiting for clinical trials

“We are actively recruiting cases for a variety of lower urinary tract diseases in animals,” says Westropp. “These studies and clinical trials offer owners the latest diagnostics and treatments as we study these disorders and how best to treat them.”

Investigations include:

- Evaluation of the impact of a special commercial diet on urate urolithiasis recurrence in Dalmatian dogs. This study is open to any Dalmatian with a history of urate stones that is able to visit the hospital four times in one year. After examining the dog, veterinarians will provide a thorough nutritional assessment, food for one year, body composition analyses and ultrasound evaluations at no cost to the owner.

- Rachel Pollard, in collaboration with the urinary and oncology group at the teaching hospital, is investigating a novel ultrasound technique to measure blood vessels in bladder tumors targeted by chemotherapy. The objective is to help clinicians predict whether a dog is responding to a specific type of chemotherapy or should be switched to a more effective drug. Ultrasounds will be performed every three weeks at no charge to the clients.

- Westropp, William Culp and Carrie Palm are evaluating dogs that require urethral stent placements due to urethral obstruction with malignant tumors. Incontinence is a potential side effect with a urethral stent. The researchers hope to be able to predict which dogs may become incontinent after a stent is placed. If enrolled, a discount on the stent placement is provided to the owner.

More information is available at: jlwestropp@ucdavis.edu or stonelab@ucdavis.edu

Agilent Technologies Donates \$1.8 Million to Promote Food Safety

Agilent Technologies of Santa Clara has contributed scientific equipment and support for post-doctoral fellowships in recognition of the school's leadership in food safety research.

The Agilent Thought Leadership Award honors the school's leadership in the detection and serotyping of *Salmonella*. These Agilent awards recognize leading researchers in genomics, proteomics, systems biology and detection of foodborne pathogens. Hailu Kinde, professor in the California Animal Health and Food Safety Laboratory—San Bernardino, stated, “The techniques currently used to identify specific types of *Salmonella* were developed in the previous century. They require a number of complex laboratory procedures which can take up to a week to complete. In this era when food can be distributed across the globe in less than a day, it is critical that we have better tools to quickly identify the source of contamination before it spreads into the food supply. This exciting new

project is a giant step toward reducing the time it takes to get test results, and will make our food safer.”

This gift to the California Animal Health and Food Safety Laboratory is valued at \$1.4 million. Combined with a 2010 award from the Agilent Foundation to Bart Weimer, professor in the Department of Population Health and Reproduction, Agilent has committed nearly \$1.8 million to the school's food safety research programs.

“Integrating PCR techniques and genomics with mass tagging for the detection and characterization of disease-causing bacteria will leverage Agilent's state-of-the-art equipment and UC Davis' scientific expertise and resources,” said Paul Zavitsanos, Agilent worldwide food program manager. “This process marks the beginning of a partnership between UC Davis and Agilent Technologies in the arena of food safety, with our shared goal of advancing science and technology to benefit society.”



Hailu Kinde and Dean Bennie Osburn express their gratitude to Mike Mullen and Dom Testa from Agilent Technologies for their gift of scientific equipment to the school.

Practitioner Fellowships

The School of Veterinary Medicine is pleased to announce the Donald G. Low/California Veterinary Medical Association Fellows for 2009-10 and 2010-11. Fellowships offer practitioners the opportunity to work with faculty experts and state-of-the-art equipment in the William R. Pritchard Veterinary Medical Teaching Hospital. Low fellows gain specialized continuing education experience and mentor students intending to enter private practice.

Congratulations to:

- Wendi Dudley, *Olde Towne Veterinary Hospital, Oakdale: Diagnostic Imaging*
- Steven Feldman, *City of Los Angeles Department of Animal Services: Shelter Medicine*
- Beth Hagenlocker, *Cat Practice of Marina del Rey: Nutrition*
- Scott Haskell, *Haskell Veterinary Consulting Service, Cedar Ridge: Clinical Pathology*
- Loly Jenny Hogans, *Harden Ranch Veterinary Hospital of Salinas: Small Animal Abdominal Ultrasound*
- Ken Pawlowski, *Banfield, The Pet Hospital, Folsom: Diagnostic Imaging*
- Jennifer Scarlett, *San Francisco SPCA: Shelter Medicine*
- Anne-Marie Sostrin, *VCA A Breed Apart, Pasadena: Small Animal Medicine*
- Rhonda Stallings, *Arroyo Veterinary Hospital, Sonoma: Small Animal Emergency & Critical Care*
- Alan Stewart, *San Francisco Veterinary Specialists: Nutrition*
- Celia Valverde, *VCA - Sacramento Veterinary Referral Center: Anesthesia*
- Nicole Zarday, *Adobe Animal Hospital, Los Altos: Small Animal Emergency & Critical Care*

Apply for a Low Fellowship at: www.vetmed.ucdavis.edu/CE/lowfellowship.html. The deadline is May 2, 2011.

THANK YOU NOTES

DEAN'S CLUB HONOR ROLL

Dean's Club donors provide unrestricted support to the school's mission to provide the best veterinary education and advance animal, human and environmental health. The following alumni and friends contributed to the Dean's Club from January 1, 2010 through October 31, 2010.

Executive Circle

(gifts of \$5,000 or more)

Robert L. Brewer '54 🌹
Michael Takeshi Ina '74

Rose Circle

Alumni who have celebrated their 50th anniversary

Dean's Club

(gifts of \$1,000 or more)

Bishop Veterinary Hospital
Gaylord M. Brown '78
Homer T. Caston '55 🌹
James J. Clark '88

Ian R. Coster '58 🌹
Deborah L. Crippen
Michael R. Floyd '61
John T. Gus '80
Donald H. Hambey '63
Larry F. Herbert '62
Arthur Jennison '76
Jock E. Jocoy '54 🌹

Richard Keagy '59 🌹
H. Jay Kerr '77
William M. Kidd '75
Keith B. Lansing '56 🌹
Donald C. Levesque '75
Charles B. Nelson '55 🌹
Michael E. O'Brien '76
Lloyd D. Pilch '75

Mark L. Pio '85
Philip D. Plocher '54 🌹
Ronald R. Ringen '66
Hani Shatila '73
Thomas Snortum '55 🌹
Richard Uchimura '65
Floyd A. Ventress '61
William B. Wetmore '55 🌹



Members of the Class of 1960 carried on the tradition of the Rose Ceremony, an opportunity for senior alumni to reflect on their veterinary careers and honor deceased classmates. Following the Rose Ceremony, the class joined other alumni for an all-class dinner.

Reunion Weekend 2010

The School of Veterinary Medicine welcomed back the classes of 1960, 1970, 1980, 1985, 1990 and 2000 to celebrate their reunions. A featured part of the weekend was the annual Oscar W. Schalm Lectureship held in conjunction with the reunions. Dorothy Cimino Brown, professor and chief of surgery at the University of Pennsylvania School of Veterinary Medicine, shared her research

on the topic of pain management and pain assessment in companion animals. The lecture's focus on chronic pain in dogs was enthusiastically received by the campus community and reunion participants. The weekend culminated with the Practitioners' Seminar continuing education program offered by the William R. Pritchard Veterinary Medical Teaching Hospital.

El Blanco Award



Dean Bennie Osburn, right, presents Rick and Norma Plocher of Woodland, California, with the El Blanco Award during Alumni Weekend 2010. The Harold D. Plocher family contributed regularly to educational activities and research projects that have advanced the health and well-being of dairy cattle. Rick Plocher's late father Harold was a 1952 DVM graduate and founder of Cache Acres Holsteins, a dairy that provided case material for the training of students and residents in the William R. Pritchard Veterinary Medical Teaching Hospital for almost 50 years.

www.vetmed.ucdavis.edu

(VMDN)
School of Veterinary Medicine
University of California
One Shields Avenue
Davis CA 95616-8736

Veterinary Medicine News is published by the University of California, Davis, School of Veterinary Medicine: Bennie I. Osburn, dean; Lynn Narlesky, editor; Katie Blakewell, Don Preisler, Celeste Borelli, and UC Davis News Service, contributors. STAR Student article and photos contributed by Alyson Salmon. For subscription questions contact the Office of Development (530) 752-7024 or development@vetmed.ucdavis.edu. *The University of California does not discriminate in any of its policies, procedures or practices. The university is an affirmative action/equal opportunity employer.*

Calendar 2011

UC DAVIS SCHOOL OF VETERINARY MEDICINE

Continuing Education

March 12-13, 2011

Veterinary Neurology Symposium, Davis

May 14-15, 2011

Veterinary Diagnostic Imaging Symposium, Davis

July 23-24, 2011

Veterinary Technician CE Seminar: "Back to School," Davis

October 2, 2011

Veterinary Practitioner Seminar, Davis

November 2-9, 2011

George H. Muller Veterinary Dermatology Seminar,
The Big Island, Hawaii

November 29 – December 6, 2011

Veterinary Endocrinology & Internal
Medicine Seminar, Maui, Hawaii

For information about these conferences and other species-oriented symposia occurring throughout the year, please visit the CE website: www.vetmed.ucdavis.edu/ce.

For questions about particular meetings, contact: Center for Continuing Professional Education, (530) 752-3905, Fax: (530) 752-6728, center4cpe@ucdavis.edu.

Alumnus Leads Diagnostic Laboratory

The School of Veterinary Medicine announces the appointment of **Richard Breitmeyer** (DVM 1980, MPVM 1988) as director of the California Animal Health and Food Safety Laboratory System (CAHFS). Breitmeyer began his appointment November 4, 2010.



The laboratory director manages branches in Davis, Turlock, Tulare and San Bernardino. CAHFS provides testing services in support of agricultural producers, veterinarians and governmental agencies charged with the protection of animal health and welfare as well as public health.

Before his appointment, Breitmeyer had served as the California state veterinarian since 1993 and as director of the California Department of Food and Agriculture's Animal Health and Food Safety Services Division from 1993 to 2003. Among his duties was the responsibility to quarantine domestic animals or animal products under the jurisdiction of the department to safeguard the health and safety of animals and the public.

Breitmeyer has worked frequently with the CAHFS, notably during outbreaks of infectious animal diseases, in statewide disease surveillance and in other animal health collaborations.