



UC DAVIS

VETERINARY MEDICINE



2019 Annual Report

Center for Companion Animal Health

Dear Friends,

This past year has been a good one for animal health – although we have a lot more work to do. The Center has never produced an annual report before but we realized this might be an excellent way to show you the impact we have had and also show you what our researchers are currently working on to improve the health and well-being of companion animals.

Additionally, as our work is entirely funded by philanthropy, we thought putting together this report was another way to thank our supporters and show them how we have put their donations to work.

As you look through the report I think you will get a feel for the breadth and depth of the types of studies we do to learn how to better understand, diagnose and treat diseases while addressing the most pressing issues facing dogs, cats, rabbits, birds, and fish among others.

Putting together this report has also made me reflect on what we do and how we do it. Studies are funded and equipment is purchased on a competitive basis after scientific review. We want to fund what is most likely to have impact, but one of the tricky things about research is we do not know what the results are going to be until we do the work. Even negative studies can have impact by leading to new questions or pathways to pursue even if the first time something did not work out as planned. This is why support and funding of high risk projects that have the possibility of high gain can also be just as important. It is balancing these two factors - incremental progress versus pie in the sky aspirations, something I think we do particularly well and what will keep us moving forward steadily and allow us to make significant breakthroughs in animal health.

So again, thank you, to all of you who have supported the Center's efforts this past year.

My best,



Michael S. Kent, MAS, DVM, DACVIM, DACVR
Director, Center for Companion Animal Health



2018-2019 SUPPORT

Center for Companion Animal Health

INDIVIDUAL DONORS

1,419 donors
4,180 total gifts

TOTAL DONATIONS

\$1,289,925

IN MEMORY

31,278
pets memorialized
through donations

INVESTING IN TOMORROW

Grew endowments by 9.7%

2018-19 endowment
earnings: \$689,167

Total endowments:
\$30,904,611

Friends of Companion Animals

A special thanks to those who have supported our work with donations of \$1,000 or more this past year:

Maxine Adler*
Anonymous
Stacey Baba and James Vokac Char
Foundation
Linda Bloom
Renee Cali
Michael and Debra Charest
Glen and Angela Charles Family Foundation
Jennifer Cheung
Sharon J. Clevesy Fund
John and Janet Collins
Andrew Daniels and Dana Gleason
G. and Margaret Davis
Susan and Dennis Driver
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Winifred Fong
Ann and John Fornoff
John Galli
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G. M. Lawrence Insurance Brokerage
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Paul and Lea Levine Foundation
Holly and Ryan Lindsay
Christina and Chee Louie
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Elyse Salven-Blatt
Billie Sarzin
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Linda and Michael Schneider
Cheryl Sedestrom
Shor-Line
SOCK-FIP
William Sommers and Sandra Black
Gary and Cathy Spratling
Eugene and Marjorie Stambaugh
James Stimson
William and Joan Strohauer
Mariko Sugiyama
Janell Sumida-Riker and James Riker
Maureen Tolson
Michael Tracy and Debra Lelek
Katharine Tyson
Varian Medical Systems Educational
Grant Corporate Fund
Suzanne Walchli Charitable Fund
Lauren Westreich and Robert Emerson
Franklin K. and Deborah A. Wyman 2011
Charitable Annuity Trust
Karen Young
Tatyana and Lev Yurovsky
Zalec Familian and Lilian Levinson
Foundation
Lin Zucconi

*Estate gift

WHY

Our mission is to improve the health of companion animals by encouraging and supporting academic studies and clinical research on diseases affecting dogs, cats, and other small pets. We are committed to develop and support programs that benefit pets and their owners. By doing this, we directly impact animal health.

HOW

The Center for Companion Animal Health is fully-funded through the generous support of donors. This is done by individual gifts and through the growth of our endowments over the years, which were given by people and organizations committed to supporting animal health. Your support allows us to grow our programs by providing:

Faculty Research Grants

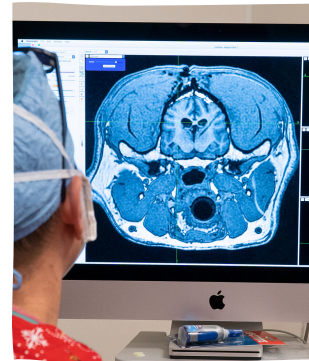
These grants are awarded to our faculty for the ongoing advancement of veterinary best practices. To fund the most promising research in our field, proposals are competitively reviewed and grants are awarded to the most innovative research with the greatest possibility of positively impacting companion animal health.

Resident Research Grants

These mentored research awards allow our residents to receive research training while also contributing to projects that have a lasting impact. This allows us to help develop the next generation of people working on animal diseases.

Equipment Funding

Research cannot happen without equipment. These grants allow our faculty to repair and replace old equipment and also purchase much needed new equipment to carry out research.



Leadership Team



Dr. Michael Kent, MAS, DVM
Director



Dr. Kate Hurley, DVM, MPVM
Associate Director – Shelter Medicine



Dr. Robert Rebhun, DVM, PhD
Associate Director – Cancer



Dr. Danika Bannasch, DVM, PhD
Associate Director - Genetics

Scientific Advisory Committee

Dr. Peter Dickinson, BVSc, PhD
Dr. Amy Kapatkin, DVM, MS
Dr. David Maggs, BVSc

Dr. Denis Marcellin-Little, MS, DVM
Dr. Bruno Pypendop, DrMedVet, DrVetSci
Dr. Jodi Westropp, DVM, PhD

Center Team

Nancy Bei, Manager
Helen Sutton, Grants Administrator
Lyra Pineda, Administrative Assistant



ACTIVE RESEARCH PROJECTS

FACULTY SUPPORT

\$3,057,302 → 138 Studies

RESIDENT SUPPORT

\$130,134 → 28 Studies

NEW PROJECTS FUNDED FOR THE COMING YEAR



Anesthesia/Critical Care

- Non-invasive measurement of cardiac output



Anesthesia

- Skull profile effects on breathing during anesthesia



Cancer

- Exosomes in glioma brain tumors
- Characterization of glioma-associated microglia
- Targeting chemotherapy resistance in cancer
- Receptor targeting in brain tumors
- Non-visceral leiomyosarcoma: How does this tumor behave? (resident grant)
- Evaluation of transanal minimally invasive surgery
- Microwave ablation to treat bone tumors
- Radiation effects on the immune system
- Tumor mutational burden in brain histiocytic sarcomas
- Control of glioma stem cell growth





Cardiology – Nutrition

- Taurine deficiency and dilated cardiomyopathy in golden retrievers



Genetics - Cancer

- Genome-wide association for susceptibility to bladder cancer
- Pigment intensity and cancer



Genetics – Disc Disease

- Genetic effects of retrogenes on dog morphology



Genetics - Ophthalmology

- Heritable progressive retinal atrophy in Greyhounds
- Jack Russell terriers with corneal endothelial dystrophy



Neurology

- Blood-brain barrier disruption during immune-mediated encephalitis



Regenerative Medicine - Arthritis

- Tissue-engineered cartilage



Regenerative Medicine – Neurology

- Stem cells to treat myasthenia gravis



Regenerative Medicine

- The role of histone deacetylation in somatic cell reprogramming



Reproduction

- Improving the quality of frozen sperm



Surgery

- Development of a better bone plate to fix broken bones in small dogs
- Evaluation of allergies to metals with orthopedic metal implants
- Fluorescence imaging of thoracic ducts



Heart Disease

- Wildfire pollution: Heart disease and clots



Infectious Disease

- Characterizing late stage FIV
- Discovering essential genes in toxoplasma sporozoites



Infectious Disease

- Disinfection and antimicrobial susceptibility of *Erysipelothrix piscisarius*



Clinical Pathology

- Platelet measurement methods (resident grant)
- The causes of transudative chylous effusion (resident grant)



Surgery

- Development of a 3D-printed nasopharyngeal stent





2018-2019
Equipment Support
21 Projects
\$304,591

Give people the right tools and they will do extraordinary things

Here are some of the equipment purchases you supported this year

- **Feline nutrition and pet care center upgrades** will improve current facilities to provide more enrichment and to help ensure the well-being of cats.
- **Rapid resorbable bone fixation system kit** will be used for research to advance and improve oral reconstructive surgeries.
- **Bacteria incubator and PH meter** will be used for culturing bacteria, such as E coli, which can produce recombinant DNA or protein, and for measuring the PH of a solution.
- **Micro Osmette** measures osmolality of body fluids and has many research applications. Urine osmolality is essential for evaluation of many disease states and is a unique measurement that is not generally available so it lends itself to numerous research applications.
- **MapCHECK 3** is used in radiotherapy to perform quality assurance studies for each patient treated with complex radiation therapy techniques. It plans and ensures the proper dose is being given before the patient is actually treated.
- **ChemiDoc XRS** imaging system acquires images of western blots and PCR gels and is integral to evaluation of changes in RNA and protein levels in cancer cells.
- **Multi-purpose laboratory plate reader** is capable of measuring light absorbance at visible and fluorescent wavelengths.
- **Real-Time PCR** is used to quantify gene expression and forms the critical core of many research projects focused on the causes of disease in companion animals.
- **Cloud computing server** - this high performance compute cluster is used for sequencing data analysis of companion animal genomes.
- **Camera Axiocam 305 mono** fits seamlessly onto an existing microscope and provides superb imaging capability for multiple fluorescence dyes that are being used for sperm imaging for reactive oxygen species, calcium imaging, and membrane lipid and protein integrity.
- **Tekscan Strideway** expands our force plate equipment for lameness evaluation. These features increase our capabilities to allow assessment of neurologic and muscular gait deficits, and can be used for a wider range of animal sizes and experimental conditions.
- **Sirona dental x-ray unit** allows research by our dentistry faculty in the best way to image oral disease. This replaced a 1989 unit that is no longer functional.
- **Mydriatic retinal camera with Imagenet** is the most advanced fundus camera available with several unique features that will be used by the Ophthalmology Service. It captures high-quality fundic photographs in order to monitor disease progression and/or response to treatment in patients.
- **The Heidelberg Spectralis** combines two technologies to provide clinicians with unique views of the eye. Specifically, this unit provides detailed cross-sectional imaging of the cornea, anterior chamber, iris, retina and optic nerve and is useful in assessing diverse eye diseases, including keratoconjunctivitis sicca, corneal endothelial dystrophy, glaucoma, and sudden acquired retinal degeneration syndrome (SARDS).
- **The Pulse Oximeter and EKG monitor** for exotic animals can record rapid heart rates and EKGs of small mammals, like rabbits and guinea pigs: the pulse oximeter monitors blood oxygen levels.
- **The accelerometers** are used to monitor rabbits and guinea pigs with arthritis before and after treatment to help evaluate improvement at home.
- **High resolution manometry and endoscopy equipment** allows us to evaluate motility disorders of the esophagus in fully awake dogs with a variety of functional esophageal disorders, allowing the development of new therapies for these disorders.
- **Gel imaging system** allows visualization of PCR products when doing gel electrophoresis to verify and determine the purity and size.
- **Absorbance plate reader** is necessary to complete fundamental experiments in the laboratory from serum and cerebrospinal fluids by ELISA.
- **Tormach Computerized Control Milling Machine** is integrated into our medical modeling and manufacturing laboratory, which supports orthopedic research, advanced training of veterinarians and graduate students, and advances in clinical practice. UC Davis' first 3D- printed custom total joint replacement surgery was done in October 2018.
- **Eppendorf™ 5810R Centrifuge** is significantly improving handling, everyday operation, versatility, and capacity at the Real-time PCR Research and Diagnostics Core Facility.

MAKING AN IMPACT

Cancer



Investigation of immune cell markers in feline oral squamous cell carcinoma

Veterinary Immunology and Immunopathology (Feb. 2019)
Sparger EE, Murphy BG, Kamal FM, Arzi B, Naydan D, Skouritakis K, Cox DP, Skorupski K



Association of macrophage and lymphocyte infiltration with outcome in canine osteosarcoma

Veterinary and Comparative Oncology (Mar. 2019)
Withers SS, Skorupski KA, York D, Choi JW, Woolard KD, Laufer-Amorim R, Sparger EE, Rodriguez CO, McSorley SJ, Monjazez AM, Murphy WJ, Canter RJ, Rebhun RB

Cardiology



Cardiac effects of a single dose of pimobendan in cats with hypertrophic cardiomyopathy; a randomized, placebo-controlled, crossover study

Frontiers in Veterinary Science (Feb. 2019)
Oldach MS, Ueda Y, Ontiveros ES, Fousse SL, Harris SP, Stern JA



Echocardiographic evaluation of velocity ratio, velocity time integral ratio, and pulmonary valve area in dogs with pulmonary valve stenosis

Journal of Veterinary Internal Medicine (Sep. 2018)
Nishimura S, Visser LC, Bélanger C, Oldach MS, Gunther-Harrington CT, Stern JA

Dentistry



The diagnostic yield of dental radiography and cone-beam computed tomography for the identification of dentoalveolar lesions in cats

Frontiers in Veterinary Science (Feb. 2019)
Heney CM, Arzi B, Kass PH, Hatcher DC, Verstraete FJM

Emergency Medicine



Efficacy of manual ventilation techniques during cardiopulmonary resuscitation in dogs

Frontiers in Veterinary Science (Oct. 2018)
Hopper K, Rezende ML, Borchers A, Epstein SE

Genetics



Genetic heterogeneity and diversity of North American golden retrievers using a low density STR marker panel

PLOS One (Feb. 2019)
Ontiveros ES, Hughes S, Penedo MCT, Grahn RA, Stern JA

Genetics-Ophthalmology



Evaluation of the major histocompatibility complex (MHC) class II as a candidate for sudden acquired retinal degeneration syndrome (SARDS) in dachshunds

Veterinary Ophthalmology (Feb. 2019)
Stromberg SJ, Thomasy SM, Marangakis AD, Kim S, Cooper AE, Brown EA, Maggs DJ, Bannasch DL

Hematology



Influence of needle gauge used for venipuncture on measures of hemostasis in cats

Journal of Feline Medicine Surgery (Feb. 2019)
Solbak S, Epstein SE, Hopper K

Immunology



Multi-color flow cytometry for evaluating age-related changes in memory lymphocyte subsets in dogs

Development & Comparative Immunology (Oct. 2018)
Withers SS, Moore PF, Chang H, Choi JW, McSorley SJ, Kent MS, Monjazez AM, Canter RJ, Murphy WJ, Sparger EE, Rebhun RB



Infectious Disease



Efficacy and safety of the nucleoside analog GS-441524 for treatment of cats with naturally occurring feline infectious peritonitis

Journal of Feline Medicine Surgery (Apr. 2019)

Pedersen NC, Perron M, Bannasch M, Montgomery E, Murakami E, Liepnieks M, Liu H



Pilot study of the safety and solerability of a subconjunctival penciclovir implant in cats experimentally infected with herpesvirus

Journal of Ocular Pharmacology and Therapeutics (Jan/Feb 2019)

Covert JC, Thomasy SM, Kado-Fong H, Kon LN, Kass PH, Reilly CM, Lappin MR, Margulies BJ, Maggs DJ



Prophylactic and therapeutic effects of twice-daily famciclovir administration on infectious upper respiratory disease in shelter-housed cats

Journal of Feline Medicine Surgery (Jun. 2019)

Cooper AE, Thomasy SM, Drazenovich TL, Kass PH, Potnis SS, Leutenegger CM, Maggs DJ



Babesia conradae infection in coyote hunting dogs infected with multiple blood-borne pathogens

Journal of Veterinary Internal Medicine (Sep. 2018)

Dear JD, Owens SD, Lindsay LL, Biondo AW, Chomel BB, Marcondes M, Sykes JE

Neurology



Intracranial pressure monitoring in normal dogs using subdural and intraparenchymal miniature strain-gauge transducers

Journal of Veterinary Internal Medicine (Mar 2019)

Sturges BK, Dickinson PJ, Tripp LD, Udaltsova I, LeCouteur RA



Pharmacokinetics and safety of zonisamide after oral administration of single and multiple doses to Hispaniolan Amazon parrots

American Journal of Veterinary Research (Feb. 2019)

Keller KA, Guzman DS, Boothe DM, Visser M, de Matos RE, Petritz OA, Kass PH, Paul-Murphy JR

Nutrition



Determination of mammalian DNA in commercial canine diets with uncommon and limited ingredients

Veterinary Medicine and Science (Feb. 2019)

Fossati LA, Larsen JA, Villaverde C, Fascetti AJ



Determination of total mercury and methylmercury concentrations in commercial canine diets

Topics in Companion Animal Medicine (June 2019)

Sires RA, Fascetti AJ, Puschner B, Larsen JA

Pain Management



Evaluation of the thermal antinociceptive effects and pharmacokinetics after intramuscular administration of buprenorphine hydrochloride to cockatiels (Nymphicus hollandicus)

American Journal of Veterinary Research (Dec. 2018)

Guzman DS, Houck EL, Knych HKD, Beaufrère H, Paul-Murphy JR

Surgery



Surgery cardiorespiratory effects of variable pressure thoracic insufflation in cats undergoing video-assisted thoracic surgery

Veterinary Surgery (Jun. 2019)

Mayhew PD, Pascoe PJ, Giuffrida MA, Mitchell J, Steffey MA, Culp WTN



Effects of hole diameter on torsional mechanical properties of the rabbit femur

Veterinary and Comparative Orthopaedics and Traumatology (Jan. 2019)

Massie AM, Kapatkin AS, Garcia TC, Guzman DS, Chou PY, Stover SM

Paying it Forward: The Koret Shelter Medicine Program brings veterinary best practices to homeless animals across North America

For too many years, the "pound" was a forbidding place - a scary building from which few animals left alive. Sadly, the image of lonely, frightened animals behind chain link fences is still a reality in some places.

At the UC Davis Koret Shelter Medicine Program (KSMP), our team is committed to protecting the most vulnerable of animals, those who are the victims of cruelty, neglect and abandonment. We are the first such program in the world to comprehensively address the unique challenges of maintaining the health and well-being of shelter animals on their way to a forever home.

Since our inception, we've championed humane housing, solved for deadly diseases, and spearheaded the world's most successful feline lifesaving initiative: the Million Cat Challenge. We've published textbooks, and guidelines to equip veterinarians and shelter leaders with the tools they need to run a successful lifesaving organization - no longer a "pound" but a place they can be proud of; a place where community members bring their children to pick out the new family dog, or to volunteer their time and talent.

A place where every animal is valued and respected

Whether a shelter is well-resourced or over burdened, in a new or old facility, the answer does not have to be euthanizing healthy animals to make room for animals with equally grim odds.

We're working towards a day when every shelter organization can proudly promise every animal under their roof "It's going to be okay, friend. You're safe here."



2018-19



As of June, 2019, 286 UC Davis veterinary students have performed over 6,591 high quality spay and neuter surgeries on homeless animals sheltered at the Yolo County Animal Services.



KSMP conducted 29 onsite shelter consultations and led intense, online trainings for an additional 18 shelters.

One million was never enough

On May 15, shelter workers huddled shoulder to shoulder in a packed conference room at the 2018 Animal Care Expo to hear a momentous announcement about the Million Cat Challenge. Were they on track to meet their seemingly outlandish goal to save a million cats in five years?

Dr. Kate Hurley revealed a map of North America with a number emblazoned across it. Not only had Challengers beat the goal of saving 1M additional lives by 148,129 - they did it an entire year early.

The Million Cat Challenge is the largest and most successful feline lifesaving effort to date. More than 1,500 shelters have adopted the Challenge's five key initiatives, leading to dramatic reductions in euthanasia and increased lifesaving success.

What began with individual shelters adopting evidence-based best practices, and transforming one-by-one, became a sea of change that swept the nation.

Now the Challenge, co-led by the UC Davis School of Veterinary Medicine, and University of Florida, continues with an even more audacious goal, hashtagged #allthecats. The right outcome for all the cats, all the time, at every animal shelter in North America.

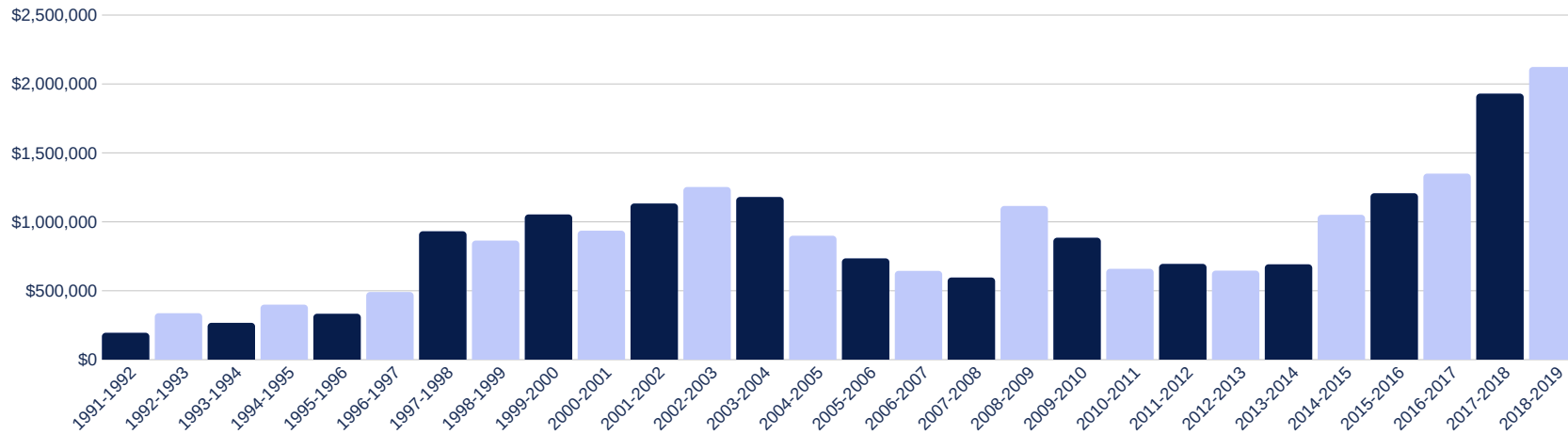
As of July 2019, we have over *2,100,000* witnesses that shows it's possible.



"I am very thankful to have been a part of the movement that has saved thousands of lives AND lightened the burden placed on our souls and that of our staff that have had to euthanize these cats all these years."
-Betty Cochran
City of Clovis Animal Services

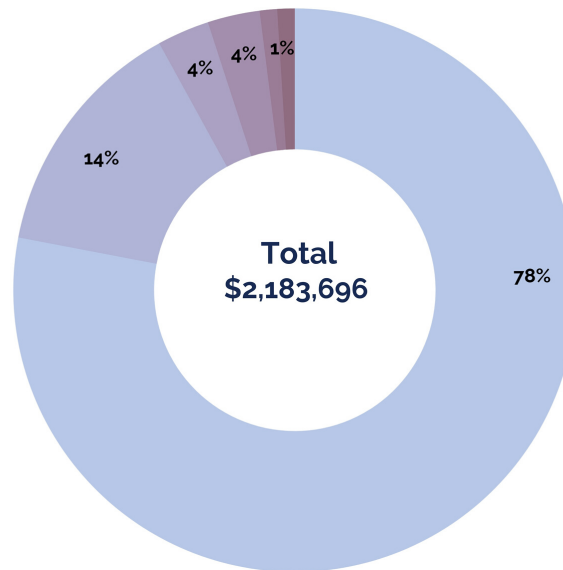
2018-19: Shelters have dropped feline euthanasia by 71% compared to their own baseline from when they first enrolled in the challenge.

CCAH Funded Awards



Since 1998 the CCAH has funded over \$24 million in studies

Awards for Fiscal Year 2018-2019



Total
\$2,183,696

Faculty Research Support	\$1,710,275 (78%)
Faculty Equipment Grant	\$304,591 (14%)
Resident Research Support	\$65,917 (3%)
Program Support <small>Community Surgery, Fracture Program, Radiation Physics Boot Camp, Research Lab Support, Feline Symposium, Electronic Medical Record Research</small>	\$68,877 (3%)
Student Research Support	\$12,408 (1%)
Facilities/Operations Support	\$21,628 (1%)

CCAH fiscal year is from July 1, 2018 - June 30, 2019

Partner Veterinary Hospitals

Through our Companion Animal Memorial Fund your local veterinarians and clinics support our research. A total of 237 hospitals and in individual veterinarians donated to the fund this past year raising a total of \$233,375.

A Gentle Rest	Camino Real Pet Clinic, Inc.	Hillcrest Veterinary Hospital	Northridge Veterinary Center, Inc.	Tassajara Veterinary Clinic
ABC Veterinary Hospital	Canyon Hills Animal Clinic, Inc.	Howard Veterinary Consultation & Research	Northtown Animal Hospital	Tehachapi Veterinary Hospital, Inc.
Acorn Hills Animal Center	Care Veterinary Hospital	Ilsi V. Medearis, D.V.M.	Oak Park Veterinary Hospital, Inc.	Terra Linda Veterinary Hospital, Inc.
Acorn Veterinary Clinic, Inc.	Carlsen Animal Hospital, Inc.	Indian Creek Veterinary Clinic, Inc.	Oakland Veterinary Hospital	The Ark Pet Hospital, Inc.
Adobe Animal Hospital	Cat and Bird Clinic	Irving Pet Hospital of San Francisco	Oakridge Veterinary Clinic, Inc.	The Country Vet
Advanced Veterinary Specialists	Cat Clinic	Jennifer M. Rau, D.V.M.	Oasis Veterinary Hospital	Tina M. Taylor, D.V.M.
Aggie Animal Dental Center	Cats Only Veterinary Hospital, Inc.	Jessica A. Dugan, D.V.M.	Occidental Veterinary Hospital	Town & Country Animal Hospital
Agoura Animal Clinic, Inc.	Centennial Animal Hospital, Inc.	Judy A. Martin, D.V.M.	Ocean Beach Veterinary Clinic	Valley Veterinary Clinic RB, Inc.
Alamo Animal Hospital	Central Coast Veterinary Acupuncture	Keely A. Commins, D.V.M.	Old Towne Animal Hospital	VCA McClave Veterinary Hospital, Inc.
Alfred V. Atkinson, D.V.M.	Ceres Veterinary Clinic, Inc.	King City Veterinary Hospital	Ontario Veterinary Hospital, Inc.	VCA West Los Angeles Animal Hospital
Alison P. Pillsbury, D.V.M.	Chabot Veterinary Clinic	Kingsburg Veterinary Clinic	Orange Canyon Pet Clinic	Vet N Care Disney Pet Hospital, Inc.
All Creatures Animal Hospital & Bird Clinic	Chad S. Alves, D.V.M.	Kiwivet Inc.	Oxnard Veterinary Hospital	Veterinary Centers of America
allCREATURES Veterinary Hospital	Charlene Lea-Shouse, D.V.M.	Kristen A. Finch, D.V.M.	Park Centre Animal Hospital, Inc.	Veterinary Housecalls
All Pets Medical & Surgical Center	Cirby Ridge Animal Hospital	La Costa Animal Hospital, Inc.	Peninsula Center Pet Hospital, Inc.	Veterinary Medical Center of Turlock, Inc.
allcreatures Veterinary Clinic, Inc.	Coastside Veterinary Clinic, Inc.	La Cumbre Animal Hospital, Inc.	Penn Valley Veterinary Associates	Village Oak Veterinary Hospital
Alto Tiburon Veterinary Hospital	Codornices Veterinary Clinic, Inc.	Ladera Ranch Animal Hospital, Inc.	Pet Vets of Folsom, Inc.	Village Veterinary Clinic, Lompoc
Amador Valley Veterinary Center	Coffee Road Veterinary Clinic	Laguna Grove Veterinary Hospital	Petaluma Central Animal Hospital, Inc.	Village Veterinary Clinic, Stockton
Animal & Bird Clinic of Mission Viejo, Inc.	College Veterinary Hospital	Laguna Veterinary Hospital	PetVet Care Centers Mgmt LLC	Village Veterinary Hospital
Animal Clinic at Lake of the Pines, Inc.	Colyer Veterinary Service	Larkspur Landing Veterinary Hospital, Inc.	Pleasant Valley Veterinary Center	Walker Street Dog & Cat Hospital
Animal Clinic of Encino	Companion Pet Clinic - Aloha	Livermore Veterinary Hospital	Point Reyes Animal Hospital, Inc.	Walnut Creek Veterinary Hospital
Animal Hospital of Cloverdale	Companions A. H., Inc.	Lodi Veterinary Hospital	Rancho Bernardo Pet Hospital	Washington Square Veterinary Clinic
Animal Hospital of Sebastopol	County Line Animal Hospital, Inc.	Los Alamitos Animal Hospital, Inc.	Rancho Pet Hospital	Waterhouse Animal Hospital, Inc.
Animal Housecall Service	Cross Street Small Animal Veterinary Hospital	Los Altos Veterinary Clinic	Rancho Viejo Animal Hospital	Wayne L. Berry, D.V.M.
Animal Medical Center	Crystal Springs Pet Hospital, Inc.	Los Osos Pet Hospital	Red Rabbit Veterinary Hospital	Wikiup Veterinary Hospital
Anza Animal Clinic	Cuyamaca Animal Hospital, Inc.	Manteca Veterinary Hospital	Redlands Animal Hospital, Inc.	Wilbak Corporation
Aragon Veterinary Clinic, Inc.	Dana Niguel Veterinary Hospital	Maria I. Kutyl, D.V.M.	Redwood Veterinary Hospital	William L. Klein, D.V.M.
Arbor Animal Hospital	David Bruyette, D.V.M.	Marina Hills Animal Hospital, Inc.	Reedley Veterinary Hospital	Willow Rock Pet Hospital, Inc.
Arbor View Veterinary Clinic	Debra K. Melcon, D.V.M.	Matilija Veterinary Hospital, Inc.	Richmond Veterinary Hospital	Winston M. Acevedo, D.V.M.
Ark Veterinary Hospitals, Inc.	Del Mar Heights Veterinary Hospital, Inc.	McKenzie Animal Clinic, Inc.	Rocklin Road Animal Hospital	Woodside Veterinary Clinic
Arnold S. Gutlaizer, D.V.M.	Del Mar Pet Hospital	Michael Gadd, D.V.M.	Sacramento Animal Hospital	
Atchinson Veterinary Hospital	Dentistry for Animals	Michael Ramos, D.V.M.	Sage Rock Veterinary Services P.C.	
Atchison Vet Hospital	Discovery Bay Veterinary Clinic	Michele C. Chin, D.V.M.	San Carlos Animal Hospital	
Balboa Pet Hospital	Doctor's Office for Pets	Mid-Peninsula Animal Hospital, Inc.	San Diego Pet Hospital	
Banderas Pet Hospital, Inc.	Doctors Pet Clinic	Midtown Animal Hospital	San Francisco Pet Behavior Consulting	
Bay Area Animal Eye Care	Dog's Best Friend & The Cat's Meow, Inc.	Mid-Valley Veterinary Hospital	San Joaquin Veterinary Hospital	
Bear Valley Animal Clinic	Donner-Truckee Veterinary Hospital	Miramonte Veterinary Hospital	San Marcos Vet Clinic	
Bel Marin Animal Hospital	East Bay Veterinary Services Inc.	Mobile Paws Veterinary Services	Scotts Valley Veterinary Clinic, Inc.	
Belmont Pet Hospital, Inc.	East San Rafael Veterinary Clinic	Modesto Veterinary Hospital, Inc.	Seven Hills Veterinary Hospital, Inc.	
Bishop Ranch Veterinary Center	Edgewood Veterinary Clinic, Inc.	Mono Way Veterinary Hospital, Inc.	Shane L. Stiver, D.V.M.	
Bishop Veterinary Hospital, Inc.	El Cerrito Veterinary Hospital	Montecito Animal Clinic	Shasta Valley Veterinary	
Blue Cross Pet Hospital	Emergency Pet Clinic of Temecula	Moore Veterinary Care	Sheila D. Langrock, D.V.M.	
Blue Cross Veterinary Hospital, Carmichael	Evergreen Animal Clinic, Inc.	Moraga Veterinary Hospital	Sheryl Eckstein, D.V.M.	
Blue Cross Veterinary Hospital, Signal Hill	Evergreen Veterinary Clinic	Morro Bay Veterinary Clinic	Slate Creek Animal Hospital	
Blue Oak Veterinary Hospital	Evers Veterinary Clinic, Inc.	Mount Shasta Animal Hospital, Inc.	South County Animal Hospital	
Blue River PetCare	Exeter Veterinary Hospital	MSSAH, Inc.	South Novato Animal Hospital	
Boulevard Pet Hospital	Fairview Animal Hospital	Muir Oaks Veterinary Corporation	Steele Canyon Veterinary Clinic	
Brandner Veterinary Hospital, Inc.	Foothill Pet Hospital	Murphy Avenue Veterinary, Inc.	Summit Veterinary Hospital & Kennels	
Broadway Pet Hospital, Inc.	Four-Legged Friends Animal Hospital, Inc.	Napa Valley Veterinary Hospital, Inc.	Sunnyvale Veterinary Clinic, Inc.	
Calvin G. Lum, D.V.M.	Global Veterinary Services, PLLC	National Veterinary Associates	Sunset Cliffs Animal Hospital	
Camarosa Veterinary Clinic	Grantline Veterinary Hospital, Inc.	Newbury Park Veterinary Clinic	Susan Chew, D.V.M.	
Cambria Veterinary Clinic	Hanford Veterinary Hospital	Newport Hills Animal Hospital, Inc.	Tamalpais Pet Hospital, Inc.	
Cameron Park Veterinary Hospital, Inc.	High Valley Veterinary Hospital	Northgate Veterinary Hospital	Tarzana Pet Clinic, Inc.	

Center for Companion Animal Health

ccah.vetmed.ucdavis.edu

One Shields Avenue
Davis, California 95616

530-752-7024

