



AMERICAN KENNEL CLUB  
**CANINE HEALTH  
 FOUNDATION**  
 PREVENT TREAT & CURE

# Discoveries

Issue 38 • Fall 2011



## MISSION

The Foundation is dedicated to advancing the health of all dogs and their owners by funding sound scientific research and supporting the dissemination of health information to prevent, treat, and cure canine disease.

## THIS ISSUE AT A GLANCE

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## Update From the AKC Canine Health Foundation CEO, Terry T. Warren, PhD, JD

UPDATE FROM THE CEO

Terence E. Block, President of Nestlé Purina PetCare’s North American Pet Food Division, was the recent recipient of the 2011 AKC Canine Health Foundation President’s Award presented at the 8th National Parent Club Canine Health Conference. Terry Block’s career at Nestlé Purina exemplifies the purpose of the award—to honor a person who has made an exceptional contribution to advancing canine health. (see page 10)

The 8th National Parent Club Canine Health Conference generously sponsored by Nestlé Purina was a multifaceted success. The “rock stars” of scientific research were there to

enlighten us on new discoveries with an emphasis on cancer research developments in genetics, immunotherapy, drug treatments and nutrition. The presentations from this outstanding conference will be available for download and use for educational programs by any and all clubs at [www.akcchf.org](http://www.akcchf.org) in the coming months.

This December the AKC National Championship Dog Show moves to Orlando, and along with it the AKC Canine Health Foundation moves its signature fundraising event to the east coast. We are pleased to announce Canines and Cocktails will be held

on Friday, December 16 at the Rosen Centre Hotel in Orlando, Florida. This elegant cocktail party will be a celebration thanking the purebred dog for advancements in canine and human health. Please join us at Canines and Cocktails, generously sponsored by *The Canine Chronicle*. Tickets for this event can be purchased online at [www.akcchf.org](http://www.akcchf.org).

The holidays are not far off, and we have the ideal gift suggestion! Think about purchasing a gift of a brick to honor your favorite canine or friend and at the same time be contributing to our mission to prevent, *(continued on page 5)*

## Blastomycosis—Bruiser's Silent Killer



When Katie Thoele decided to take her six-year-old Miniature Pinscher Bruiser for a weekend of hiking in Wisconsin, she never anticipated the dangers lurking while Bruiser enjoyed the outdoors. Bruiser spent the weekend doing what he loved most—playing by the water, chasing chipmunks, and laying in the sunshine. It wasn't until two weeks later when Bruiser started showing physical symptoms of illness, and four days later he died due to respiratory failure. Bruiser gained his wings July 9, 2010 after being taken by the disease known as Blastomycosis.

### What is Blastomycosis?

Blastomycosis is a serious systemic fungal disease. It is caused by the fungus *Blastomyces dermatitis* that grows near water such as lakes, streams, beaver dams and other habits where soil is moist, acidic, and rich in decaying foliage. Most blastomyces spores will die unless the conditions are ideal for the fungus to survive. This explains why blastomyces are found in small pockets instead of being widespread, often making it difficult to find in the environment.

### Who is at risk?

While humans can often become infected, dogs are 10 times more likely to develop the disease. Although it primarily infects dogs, humans and cats, it has also been reported in a wide variety of animals such as horses, ferrets, deer, wolves, African lions, bottlenosed dolphins, and sea lions.

Blastomycosis is generally limited to North America, and most cases have occurred in Mississippi, Missouri, Tennessee, and Ohio River basins. Individuals and dogs that spend much of their time in the woods, swamps, or near water have a greater risk of infection. One study in Wisconsin has shown that 95% of infected dogs live within 400 yards of a body of water. Sporting and hunting dogs are therefore more commonly infected because of their frequent exposure to the soil and wet areas.

When the ground where the fungus lives is disturbed, the infectious spores found in the soil are released into the air. Dogs often acquire infection by inhaling the spores through their

nose which then travel down into the lungs where it induces a respiratory infection.

### Clinical Findings & Symptoms:

When the respiratory defenses are overwhelmed, the disease spreads through the bloodstream from the lungs to other organs throughout the body to involve the eyes, brain, bones, lymph nodes, skin, and tissues just beneath the skin. According to Merck Veterinary Manual signs of pulmonary involvement are seen in up to 85% of affected dogs. Lymph node and skin involvement are reported in about 50% of affected dogs. Signs of ocular blastomycosis

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*After exposure, some dogs may be infected but not show clinical signs for weeks or even months, and if left untreated can be fatal. The clinical symptoms of blastomycosis may vary with organ involvement which can include coughing, skin lesions, anorexia, depression, fever, weight loss, shortness of breath, exercise intolerance, enlarged lymph nodes, eye disease, or lameness.*

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are seen in 30-50% of affected dogs and can include blindness, glaucoma and retinal detachment. Lameness associated with severe paronychia occurs in about 25% of affected dogs. Involvement in the central nervous system (CNS) is uncommon, occurring in <5% of dogs, but more common in cats.

*(continued on page 3)*

**BLASTOMYCOSIS—BRUISER'S SILENT KILLER** *continued from page 2*

## AKC Canine Health Foundation Welcomes New Staff

The Foundation is excited to welcome three new staff members to our team. Mona Povlick, CPA is the new Director of Finance. Samantha Wright joins the Foundation in the newly created position of Program Manager. Kathryn Simpson is our new Development Coordinator.

**Mona Povlick** is a native of Raleigh, NC and graduated from North Carolina State University. She brings a wealth of accounting experience to her position as Director of Finance including non-profit experience with the North Carolina Partnership for Children. She has also served as Senior Accountant for The News and Observer Publishing Company, Internal Auditor for Sprint, and Auditor for Ernst & Young. Mona shares her home with her husband, Michael, her daughters Paige and Kady, and her two cats, Wolfpack and Pirate. She is doing her research to add the perfect canine companion to her home soon.

**Samantha Wright** graduated from the University of New Hampshire with a degree in zoology. Prior to joining the Foundation she worked at the EMC Corporation in multiple roles for four years supporting the sales force, managing client relationships, and evaluating sale projections. As Program Manager she will work with the Foundation's Chief Scientific Officer to ensure the research and educational programs are efficiently operated with effective communications to all CHF supporters. Samantha is looking forward to increasing her interactions with the dog fancy through club communications, health liaison relationships, presentations and events. Samantha grew up with a Gordon Setter named Goose, and is adding a German Shorthaired Pointer to her family soon.

**Kathryn Simpson** is a recent graduate of the University of North Carolina Wilmington. She joins the Foundation as Development Coordinator after a year with the marketing firm Co-Options, where she served as Program Manager and Sales Accountant. Kathryn is responsible for managing the donor database and donor stewardship. She will also put her marketing experience to practice working on special events, the Living Art Calendar and the Foundation website. She and her husband, Andrew, own and love a Golden Retriever named Andi.

After exposure, some dogs may be infected but not show clinical signs for weeks or even months, and if left untreated can be fatal. The clinical symptoms of blastomycosis may vary with organ involvement which can include coughing, skin lesions, anorexia, depression, fever, weight loss, shortness of breath, exercise intolerance, enlarged lymph nodes, eye disease, or lameness.

**Treatment:**

The most common choice of treatment used for infected dogs and cats, is the antifungal drug Itraconazole. For aggressive cases, especially those with evidence of hypoxemia, combination treatment with Amphotericin B and Itraconazole is recommended under close veterinary care. Itraconazole should be given daily for a minimum of two months and continued until the disease is no longer noticeable. In treated dogs, clinical cure can be expected in ~70% of the dogs, with ~20% suffering relapses months to a year after treatment. Prognosis is best for dogs with mild or no lung disease, but is poorest for those with CNS involvement.

Although Bruiser struggled with some unrelated medical issues throughout his life, blastomycosis became his silent killer. The infection hid in his system two weeks before symptoms were apparent. He was quickly diagnosed and treated with medication, but it proved to be too late and his body couldn't handle the recovery. After losing her best friend it has been Katie's mission to inform pet owners and lovers of the risks to help save the lives of other beloved companions everywhere.

**References:**

The Merck Veterinary Manual (9th ed.). (2005). Philadelphia, PA: MERCK & CO., INC., pp.518-519.

Drs. Foster & Smith; Blastomycosis in Dogs & Humans. Veterinary & Aquatic Services Department.

<http://www.peteducation.com/article.cfm?c=2+2102&aid=401>

## Acupuncture for Dogs

By all accounts, Americans adore their pets. Even in a stagnant economy, pet-centric businesses, novelties, and health care continue to thrive. As acceptance and popularity in alternative or Eastern health care among people has grown, so too has its application in veterinary medicine; chief among the emerging holistic veterinary services offered is veterinary acupuncture.

While acupuncture is among the oldest medical treatments in the world, it has only recently begun to receive mainstream acceptance as a valid treatment for a multitude of ailments affecting both humans and their companion animals. Veterinary acupuncture has been practiced for more than 3,000 years in China and India, but did not receive institutional recognition in America until 1974, when the first and foremost professional society on veterinary acupuncture, the International Veterinary Acupuncture Society (IVAS), was established. In veterinary medicine, acupuncture can be used to treat many of the same conditions that affect humans. According to the IVAS, these include, but are not limited to, musculoskeletal problems, such as arthritis, cancer, and incontinence, as well as reproductive, skin, gastrointestinal and respiratory afflictions.

Broadly speaking, acupuncture involves the application and insertion of tiny needles into the skin along strategic points referred to as meridians; additionally, it often includes herbal medicine and moxibustion, the burning of the mugwort herb, which can be used

indirectly on acupuncture needles or directly on a patient's skin.

The practice of acupuncture is unusual by Western standards, yet just as unique is the philosophy which drives it. Acupuncture is a component of Traditional Chinese Medicine (TCM), which views good health as the harmonious balance between body, heart, mind, and spirit, and illness as imbalance. Specifically, these imbalances exist in the body's energy or life force, which TCM refers to as Qi. Hence, maladies and afflictions are considered to be the result of an imbalance, or blockage, in patients' Qi.

In contrast to Western medicine, TCM sees the body as having inherent self-healing properties and mechanisms. Acupuncture functions to stimulate and support these properties within the body. While acupuncturists assess and diagnose the imbalances in patients' life force and, through treatment, remove them and enables healing and balance, the emphasis is on prevention. As such, it is a holistic philosophy and practice and promotes healing on multiple levels. Conversely, medicine in the West primarily treats the symptom, whereas TCM seeks to treat that which causes the malady.

There are a number of resources pet owners can utilize in order to find a reputable veterinary acupuncturist. In most states, only licensed veterinary acupuncturists can practice acupuncture on pets. Traditional veterinarians (DVM) may be able to refer clients to a veterinarian who practice acupuncture. While many veterinary texts and manuals offer



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information on veterinary medicine today, a reputable CVA will have completed extensive training through a certified training institute. There are also resources online, such as the Traditional Chinese Veterinary Medicine website, which lists licensed CVA by state; the IVAS also offers assistance for those seeking veterinary acupuncturists.

An owner's decision to pursue veterinary acupuncture is case specific and depends on the individual pet and its health problems. Acupuncture is well-suited for clients who are open to the idea, or for whom Western medicine is not working or causing undesirable side effects for their dog(s). Dogs who need surgery, for instance, but are not eligible because they have conditions that would make

*(continued on page 5)*

**ACUPUNCTURE FOR DOGS** *continued from page 4*

anesthesia too risky would likely benefit from acupuncture.

Dog owner Deirdre Franklin credits acupuncture with helping her dog, seventeen year old pit bull mix Carla Lou, recover from a number of illnesses. Her veterinarian, whose holistic practice utilizes both Western and Eastern techniques, suggested acupuncture in conjunction with steroids and antibiotics to treat the Lyme Disease which caused Carla Lou great pain and lameness in her back leg. While Franklin acknowledges that the pharmaceutical helped Carla Lou, she also attests that she saw immediate and long-lasting results with acupuncture. "She wasn't using her back leg at all," Franklin recalls, "but she was so energized and spirited following the acupuncture that I was shocked. She was so achy and in so much pain, almost like she had arthritis, but afterwards, she was like a wild child. Then, after twenty minutes or so of her doing her 'happy dance,' she was calm and peaceful."

Charles Brown believes acupuncture helped significantly reduce pain and increase the quality of life for his ailing cattle dog, Jester. Jester suffered from a number of health problems and was on so much medication he

was unable to take non-steroidal anti-inflammatory drugs, which typical Western veterinary medicine uses to treat pain. Brown recalls the dramatic effect Jester's acupuncture treatments had on him, stating "He hobbled into the office for his treatment, and afterwards, I was amazed that he walked normally, almost the way he walked before he was ever diagnosed with arthritis."

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While many pet owners wholeheartedly endorse and support veterinary acupuncture, the research supporting its efficacy, particularly when compared to Western veterinary medicine, is equivocal. According to Dr. Erin Ringstrom, a veterinarian practicing both Western and Eastern veterinary medicine in Atlanta, many of the patients who request veterinary acupuncture have already experienced its positive effects for themselves

and wish to see if it will benefit their pets. She notes that acupuncture can promote immune function, enhance performance, and help prevent diseases. Dr. Karen Ellis, a veterinarian based in Milton, Georgia, corroborates this and asserts that acupuncture is particularly useful for the treatment of arthritic conditions because it releases chemical mediators that help minimize pain and bolster the immune system. In her practice, she finds acupuncture to be particularly effective in treating hip dysplasia and other musculoskeletal disorders.

Acupuncture is not, however, applicable or successful in all cases. It can take longer to see results with acupuncture than with Western medicine and can require more and longer treatments; furthermore, some dogs are not cooperative and do not allow the needles to be placed. While solid, unbiased research on veterinary acupuncture has increased dramatically over the years, both Dr. Ringstrom and Dr. Ellis acknowledge that many unanswered questions on veterinary acupuncture's efficacy remain; as further research is conducted, veterinarians will be able to use it more effectively and continue their mission to assist and prolong animals' health and wellness.

**UPDATE FROM THE AKC CANINE HEALTH FOUNDATION CEO, TERRY T. WARREN, PHD, JD** *continued from page 1*

treat and cure canine disease. At the beautiful new Purina Event Center in Gray Summit, Missouri, there are two expansive brick paths which grace the building. Nestlé Purina has generously designated one path as the

"Walk of Champions" and the other the "Path of Honor," providing the Foundation with another fundraising opportunity. Please visit <http://support.caninehealthfoundation.org/bricks> to purchase your brick today.

Thank you all for your support, together we are making a difference helping all dogs and their owners live longer, healthier lives.

## Focus on Research

Below is a list of new ACORN research grants that have been funded since the last Discoveries Newsletter. For detailed information about any of these studies, visit our website at [www.akcchf.org](http://www.akcchf.org) to see all of the CHF funded research projects. We encourage you to make a secure online donation in support of any of these new studies.

**Grant 1686-A:** Evaluation of Metformin on Growth Inhibition and Cytotoxicity in Canine Cancer Cell Lines; Dr. Kristine Elaine Burgess, DVM, MS, Tufts University—**\$12,744**

New OAK grants for 2012 will be approved by the Board of Directors in September. However, there are still multi-year grants that started in 2011 that need your support.

**Grant 1484:** Identification and Characterization of a Canine Derived Single Chain Antibody that Binds and Neutralizes Canine VEGF; Dr. Nicola J Mason, BVetMed, PhD, University of Pennsylvania—**\$70,907**

About the grant: Canine Hemangiosarcoma is an aggressive form of cancer with survival times that rarely exceed six months. Vascular endothelial growth factor (VEGF) is a protein that promotes tumor growth and spread. Targeting antibodies against VEGF plus chemotherapy has prolonged disease free survival in other tumor types in humans. In this study researchers are testing VEGF specific antibody fragments for their potential to inhibit tumor growth in dogs.

**Grant 1480:** Leptospirosis: A Forgotten Disease in Dogs; Dr. Janet Foley, DVM, PhD, University of California, Davis—**\$73,620**

About the grant: Although vaccination of dogs against canine leptospirosis has taken place for decades, novel and potentially emerging vaccine-resistant strains from wildlife have been detected recently. This study aims to determine risk factors for, and clinical characteristics of, modern leptospirosis; generate a statistical risk model; and develop a reliable, sensitive diagnostic method. Results from this study will provide information to improve success of patient management and reduce risk of infection to other dogs.

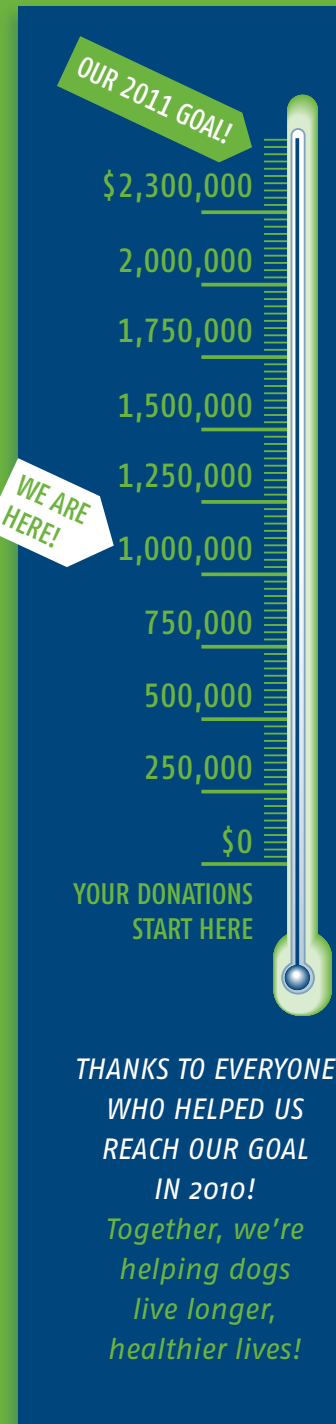
**Grant 1426:** c-Kit Mutation and Localization Status as Response Predictors in Canine Mast Cell Tumors Treated with Toceranib or Vinblastine: A Response-

Adaptive Randomized Trial; Dr. Douglas H Thamm, VMD, Colorado State University—**\$90,000**

About the grant: This study evaluates a type of drug, KIT inhibitors, for use in treating mast cell tumors (MCT) in dogs. Researchers have developed a rapid test to determine whether mast cell tumors possess KIT mutations or not. Armed with that knowledge, dogs with mast cell tumors will be randomly treated with either the drug vinblastine or a KIT inhibitor. Results of this study will clarify whether KIT mutation testing is a useful decision-making tool for the selection of the best possible medical therapy for dogs with MCT.

**Grant 1418:** PET 2.0: Providing Engineered T-cells (PET): New Genetic and Immunotherapy Targeting Canines with Spontaneous B-cell Lymphoma; Dr. Heather M. Wilson, DVM, Texas A&M University—**\$150,000**

About the grant: Researchers seek to develop a new treatment to retrain the dog's own immune system to attack the most common type of canine lymphoma, B-cell lymphoma. They will obtain a small number of circulating white blood cells, called T cells, from the blood of affected dogs and insert a gene that will cause the T cell to express a receptor which recognizes the tumor "fingerprint". After docking with the lymphoma, the T cell will be triggered to mount an immune response against the tumor cells with the specific fingerprint. This therapy could be used alone or in combination with chemotherapy.



## Dr. Jaime Modiano Presented with 2011 Asa Mays, DVM Award for Excellence in Canine Health Research

Dr. Jaime Modiano of the University of Minnesota was presented with the AKC Canine Health Foundation Asa Mays, DVM Award for Excellence in Canine Health Research at the 2011 National Parent Club Canine Health Conference on August 13, 2011. Asa Mays was a founding board member

of the AKC Canine Health Foundation. This award is presented in his memory to research investigators who demonstrate meritorious advancements in furthering the mission of identifying, characterizing, and treating canine disease and ailments.

Originally from Mexico City, Dr. Modiano completed his undergraduate work in biomedical sciences at Texas A&M University. He went on to veterinary school at the University of Pennsylvania, where he also earned a PhD in Immunology. He went on to a residency in Veterinary Clinical Pathology at Colorado State University and a post-doctoral fellowship at the National Jewish Center for Immunology and Respiratory Medicine.

Dr. Modiano served on the faculty in the Department of Veterinary Pathobiology at Texas A&M University between 1995 and 1999. He then returned to Denver for appointments at the AMC Cancer Research Center and he was Associate Professor of Immunology at the University of Colorado Health Sciences Center. In July of 2007, Dr. Modiano joined the College of Veterinary Medicine and the Comprehensive Cancer Center at the University of Minnesota, where he continues his research program as Professor of Comparative Oncology holding the Al and June Perlman Endowed Chair.

His research program has had uninterrupted support from federal and private sources for 16 years, leading to co-authorship of more than 50 peer-reviewed scientific manuscripts, and approximately 200

abstracts, presentations, and book chapters focused on various aspects of immunology, cancer cell biology, the genetic basis of cancer and applications of gene therapy.

The AKC Canine Health Foundation has awarded Dr. Modiano nearly \$1.2 million for eight research projects. He received his first grant from the Foundation in 1998 to study tumor suppressor genes in canine cancer and continues to receive funding today for hemangiosarcoma and osteosarcoma treatments.

His work has significantly progressed our understanding of canine cancer. We understand more about the heritable breed specific risks of certain types of cancer. Most recently, Dr. Modiano's team discovered a gene pattern that distinguishes the more severe form of bone cancer from a less aggressive form in dogs. This discovery has significant implications for how osteosarcoma patients are treated.

"Dr. Modiano's research efforts in canine cancer are unparalleled," says Dr. Christine Haakenson, Chief Scientific Officer for the Foundation. "And in addition to being a leading researcher, Dr. Modiano is also a great partner for the AKC Canine Health Foundation. He frequently provides us with educational materials and speaks to our constituents on his research."

Dr. Modiano and his wife, Dr. Michelle Ritt, share their home and their hearts with Logan, a champion agility Gordon setter, and Quetzal, a champion agility German Shepherd Dog.



### The Modiano Lab's Current CHF Funded Projects:

**Grant 1503-A:** Rational Development of Targeted Therapy—Aurora Kinase Inhibition in Osteosarcoma

**Grant 1429:** Mechanistic Relationship of IL-8 in Cell Proliferation and Survival of Canine Hemangiosarcoma

**Grant 1131:** Genetic Background and the Angiogenic Phenotype in Cancer

Donate to research grants online at [www.akcchf.org/donate](http://www.akcchf.org/donate)

## Spotlight on Genetic Tests: Congenital Hypothyroidism with Goiter in the Toy Fox Terrier and Rat Terrier

Hypothyroidism is impaired production and secretion of the hormones of the thyroid gland. Congenital Hypothyroidism (CH), that is hypothyroidism present at birth, is an even greater cause for concern because it can result in dwarfism and severe mental retardation.

Congenital Hypothyroidism with goiter (enlargement of the thyroid gland) is an inherited recessive trait in Toy Fox Terriers. Using clues from a well documented origin of CHG in humans, researchers at Michigan State University discovered the responsible gene mutation and have developed a genetic test for the disease. The same gene mutation was later found to cause CHG in Rat Terriers, therefore the same test is used for both breeds.

When breeders submit a sample for testing, they will receive results identifying their dog in one of these three categories:

**CLEAR:** *the dog has two copies of the normal gene and will neither develop Congenital Hypothyroidism, nor pass a copy of the CHG gene mutation to any of its offspring.*

**CARRIER:** *the dog has one copy of the normal gene and one copy of the mutant gene that causes CHG. It will not develop CHG but will pass on the CHG deficiency gene to 50% (on average) of its offspring.*

**AFFECTED:** *the dog has two copies of the CHG mutation and is affected with Congenital Hypothyroidism. Since Congenital Hypothyroidism is present at birth clinical signs will be obvious before the dog is tested for the genetic mutation.*

The test itself identifies the actual disease-causing mutation and therefore is totally reliable in identifying this form of hypothyroidism. If, however, a second form of hypothyroidism were to develop in these breeds, the test would not be able to identify it.

Breeders can reduce the incidence of CHG by testing their breeding stock and making breeding decisions that avoid producing offspring with two copies of the mutation.

The test for Congenital Hypothyroidism with Goiter is available from the Laboratory of Comparative Medical Genetics at Michigan State University.

### For more information:

MSU Laboratory of Comparative Medical Genetics:  
<http://www.mmg.msu.edu/fyfe.html>



## Calendar of Events

### SEPTEMBER 15-18

North American Versatile Hunting Dog  
Invitational Presentation

### NOVEMBER 5

Breeder's Symposium  
University of Minnesota

### DECEMBER 16

Canines and Cocktails, Rosen Centre Hotel,  
Orlando, FL

## Visit our Booth

### SEPTEMBER 24

Responsible Dog Ownership Day  
Raleigh, NC

### NOVEMBER 12-13

National Animal Interest Alliance  
Conference—Harrisburg, PA

### NOVEMBER 19-20

Meet the Breeds, New York, NY

### DECEMBER 17-18

AKC National Championship—Orlando, FL



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## Research in American Staffordshire Terriers Gives Scientists a Fresh Look at a Rare Human Disease

Neuronal ceroid lipofuscinoses (NCLs) are the most common type of progressive brain disease seen in children. These inherited diseases cause visual, mental, and physical abilities to degenerate over time, cumulating in premature death. However, children are not the only ones who suffer from NCLs—these disorders can also occur in older adults, although such late-onset NCLs are rarer and much less well understood.

The late-onset NCL known as Kufs' disease has remained particularly elusive to doctors and scientists. Neither its genetic cause nor its mechanism of action is known, and the disease has been extremely difficult to study due to its rarity and the lack of a useful animal model. That may be changing, however, due to the discovery of a condition similar to Kufs' disease that affects a larger group of individuals—individuals that just happen to be American Staffordshire Terriers (Amstafs).

*A test based on the results of their research has already hit the market, but even more exciting is the fact that their results are helping scientists to develop a better understanding of how late-onset NCLs affect the brain and body.*

The reason that late-onset NCLs are relatively common in Amstafs, as well as in Old English Sheepdogs, Scottish Terriers, and Gordon Setters, is that in dogs these diseases are controlled by a recessive mutation. This means that dogs won't get sick unless they inherit two copies of the problematic gene variant. Because of this, and the fact that symptoms don't show up until relatively late in life, the mutation is distributed widely through the Amstaf population. Scientists have estimated that 39 percent of Amstafs have at least one copy of the dangerous allele. However, even with a mutation that common, it still isn't easy to identify a responsible gene.

Embracing the challenge with support from the AKC Canine Health Foundation, Dr. Natasha Olby and her colleagues from North Carolina State University began to search the Amstaf  
*(continued on page 11)*

## Champion of Canine Health: Terence E. Block Receives President's Award



Lee Arnold, Chairman of the AKC Canine Health Foundation, presented Mr. Terence Block, President of Nestlé Purina PetCare's North American Pet Food Division with the 2011 AKC Canine Health Foundation President's Award on August 13.

The presentation was held at the Purina Event Center in Gray Summit, Missouri as part of the 2011 National Parent Club Canine Health Conference hosted by the Foundation and sponsored by Purina.

*Perhaps the most significant contribution Mr. Block has made to canine health is through his establishment of the multi-year, multi-million dollar alliance between Nestlé Purina PetCare and the AKC Canine Health Foundation.*

Mr. Block joined the marketing team at the former Ralston Purina Company in 1977. He served in a number of increasingly important marketing

positions until he became Executive Vice President, Ralston Purina Pet Products in 1993. His current position as President of North America Pet Foods became effective in January of 2002 after the acquisition of Ralston Purina Company by Nestlé.

Mr. Block's commitment to

canine health is evident through his leadership of the Purina brands. He worked on the launch of Purina One and Purina Pro Plan brands in the 1980s, and recently oversaw the launch of Purina One Beyond. These brands are the cornerstone of the Purina Pro Club and the Purina Parent Club Partnership Program, carrying the weight circles that thousands of dog enthusiasts clip from bags each year, earning nearly \$2 million for canine health research through the AKC Canine Health Foundation. The Pro Club is also a source of critical canine health education for many dog owners. Purina consistently provides its customers with information on health, nutrition and genetic advances help breeders, owners and dog enthusiasts.

Perhaps the most significant contribution Mr. Block has made to canine health is through his establishment of the multi-year, multi-million dollar alliance between Nestlé Purina PetCare and the AKC Canine *(continued on page 11)*

## Kudos

We offer a resounding thank you to our sponsors, contributors and attendees at our National Parent Club Canine Health Conference (NPCCHC) in St. Louis, Missouri. Your dedication to the Foundation allows us to continue finding ways to save the lives of our canines and enhance the well-being of dogs around the world.

Our gratitude goes to Connie G. Miller for her gift of \$5,000 supporting the veterinary scholarships to the 2011 NPCCHC.

Kudos to the International Alaskan Malamute Fanciers for your contribution of \$2,500 towards epilepsy research.

Hats off to the Border Terrier Club of America for matching their members' donations and raising \$10,431 for their Donor Advised Fund.

We greatly appreciate all the Federal and State Employees who continue to support us through the Combined Federal Campaign and State Campaigns. Please look for us in your workplace campaigns again this fall.

Thank you for the support from the members of Trenton Kennel Club, Inc. who voted to have \$1,000 donated to CHF for research for all canines.

More tails are wagging thanks to Old Dominion Kennel Club of Northern Virginia, Inc. for their unrestricted donation of \$2,000 supporting canine health.

Excellent work American Shih Tzu Club Charitable Trust for donating \$9,000 supporting Grants 615, 947 and 1422.

**CHAMPION OF CANINE HEALTH: TERENCE E. BLOCK RECEIVES PRESIDENT'S AWARD***continued from page 10*

Health Foundation. Established in 2003 and executed by Mr. Block, this agreement established the significant financial support Purina has given to the Foundation over the last eight years. Without question, this alliance made it possible for the AKC Canine Health Foundation to grow and thrive over the years. The Foundation has funded nearly \$33 million in research and educational programs in large part because of our formal alliance with Nestlé Purina PetCare Company. The Foundation is grateful to Mr. Block, for having the foresight and the courage

to align the two organizations and recognize the importance of canine health research to our beloved canine friends.

Mr. Block's leadership was also instrumental in bringing about the Purina Event Center. Open for almost exactly a year now, this state-of-the-art facility provides a place for the sport of dogs to thrive. Dogs are being shown in their optimal condition and participating in a variety of sports that keep our canine companions in great physical shape. What's more,

Purina has found yet another way to give back to the AKC Canine Health Foundation through the Purina Event Center: the Walk of Champions and the Path of Honor. The proceeds from the purchase of the engraved bricks on these paths go to fund canine health research.

It is clear that when Mr. Block retires from Purina at the end of this year, he leaves a lasting legacy that affects the health of dogs well into the future.

**RESEARCH IN AMERICAN STAFFORDSHIRE TERRIERS GIVES SCIENTISTS A FRESH LOOK AT A RARE HUMAN DISEASE***continued from page 9*

genome for the responsible gene. First, they narrowed down the hunt to one small region of the genome. Then they identified three candidate genes. Finally, they started to sequence.

The first two genes the scientists sequenced were dead ends. Fortune smiled upon them, however, when they teamed up with a group of French researchers who were also looking at neurodegenerative diseases in Amstafs... and who had just sequenced the third gene. Working together, and looking at dogs from both sides of the Atlantic, the scientists were able to confirm that a mutation in the gene in question—Arylsulfatase G (ARSG)—was in fact the cause of the late onset NCL in Amstafs.

A test based on the results of their research has already hit the market,

but even more exciting is the fact that their results are helping scientists to develop a better understanding of how late-onset NCLs affect the brain and body. The ARSG mutation associated with the canine NCL greatly reduces the enzyme's activity—which, over time, could lead to the build-up of lysosomal materials that is seen in tissue samples of humans and dogs with NCLs.

This work was funded by AKC Canine Health Foundation Grant 925: Identification of Mutations Causing Hereditary Cerebellar Cortical Degeneration in American Staffordshire Terriers and Old English Sheepdogs

**New Club Members**

New Club Members as of 8/31/11  
(new since 5/9/11):

Alaskan Malamute Club of America  
Hernando County Kennel Club



AMERICAN KENNEL CLUB  
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# Discoveries

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## THIS ISSUE FEATURES

*Blastomycosis—Bruiser's Silent Killer*

*Acupuncture for Dogs*

*Dr. Jaime Modiano*

*Congenital Hypothyroidism with Goiter  
in the Toy Fox Terrier and Rat Terrier*

*American Staffordshire Terriers*

*Terence E. Block*

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