



WINN NEWS

FOR THE HEALTH & WELL-BEING OF ALL CATS

Winter, 2007

PRESIDENT'S COLUMN

The Winn Feline Foundation board met in Reno, NV on June 13, 2006. At that meeting, the board approved changes to our policies governing breed-related studies. These changes were necessitated by the increased demand for funding genetic studies of breed-related health issues. In order to ensure funds are available to fulfill the needs of the many breed groups seeking help and still have enough funds available for research into other important feline health issues, Winn will now match at least the first \$5,000 (up to a maximum of \$7,500) for each breed-related project. Winn has also removed the cap of \$15,000 for breed-related studies, making it possible for these special projects to receive accelerated funding. Winn is currently working with at least five breed groups on specific health projects. With the help of breeders and concerned cat owners, Winn has been able to help fund major breakthroughs in genetic diseases specific to certain cat breeds, proving how valuable this specialized type of funding is.

Susan Little DVM, DABVP (Feline)
President, Winn Feline Foundation

Winn Board Welcomes New Treasurer

by Kate McMahon

It is with great pleasure that the Winn Foundation welcomes Elizabeth (Betsy) Gaither to the board as our new Treasurer. Betsy is not only an extremely talented numbers cruncher, but also the proud owner of Texas Belle Cattery where she devotes a good deal of time to her Maine Coons.

Betsy held various accounting and controller positions after graduating as valedictorian of her high-school class in New Caney, Texas. Later she completed a bachelor's degree, cum laude, in accounting and management and then her MBA both at Houston Baptist University. She was managing partner of Gaither, Palmer, Newton & Weber, a CPA firm in Houston until her semi-retirement in 1995. She now divides her time between tax consulting work, her Maine Coons...and now, Winn.

Betsy's "retirement" is really very "semi" as she also volunteers her time as Treasurer of the Silver Rebels Cat Club and, since 2002, of the Cat Fanciers' Association's Gulf Shore Region. Texas Belle Cattery calls home a wonderful hill in Bellville, Texas where the cats allow Betsy and her husband, Ed, to use a few rooms in return for complete indentured servitude! Ed and Betsy found the beautiful old farm in 1981 while they were living in Houston. It had been part of a Spanish Land Grant to a family that was among the earliest American immigrants to Texas. In 1992 they moved, lock, stock, and barrel, out to Bellville which is about 65 miles northwest of Houston. Betsy had fallen in love with Maine Coons years earlier while visiting the annual Houston Cat Club show and now was the time!

Texas Belle was founded in May of 1993 and the rest is history! In addition to Ed and the cats, Betsy's family is rounded out by her son, Shannon, his wife, Cher, and grandson, Ross.

Winn is happy to have Betsy on board and looks forward to having her manage Winn's donations for the benefit of feline health everywhere!



Winn Foundation Announces Award of Six Grants for Important Feline Health Studies

\The Winn Feline Foundation is pleased to announce the award of six grants funded in partnership with the George Sydney and Phyllis Redman Miller Trust. The Trust designated the Winn Foundation as one of its advisor organizations in their desire to "support medical research to investigate the causes, prevention and development of cures for diseases of . . . domestic cats." Winn President Susan Little, DVM commented, "I am pleased that the expertise of the Winn Foundation and its veterinary consultants has been called upon to assist in the distribution of these funds. We are excited about the proposals that have been funded as a result. This year we awarded \$87,515 in grants for studies of heart disease, pain management, genetic testing for feline blood types, and two infectious disease studies (feline infectious peritonitis and *Cytauxzoon felis*).

Winn is also pleased to be participating in support of a multi-institutional study to better understand the factors that influence shelter cat populations.

Expansion of the Shelter Population Index for Cats: Phase 2 of a Multi-institutional Study. John C. New, Jr., DVM, MPH, DACVPM, University of Tennessee. \$21,300

Millions of cats end up at animal shelters and the resulting numbers that have to be euthanized each year are disturbing to all who care about animals. Too often shelters themselves are blamed when the reality is that the responsibility lies with the community that the shelters serve.

Two groups have partnered to develop a Shelter Population Index (SPI): shelters recruited by five universities and a coalition of other shelters. This SPI will be similar to the Dow Jones Industrial Average that measures the general health of important components of the U.S. economy. The SPI is designed to measure the performance of the overall sheltering system. It reflects the general awareness and involvement of the community that supports the cat sheltering system. Since the dynamics of cat shelter populations are linked to communities using information from the U.S. Census Bureau, the SPI can be used to justify and track improvement of community-based measures aimed at controlling the surplus of cats in the U.S. Produced annually, it will identify trends in shelter cat populations and community-based solutions. Through increased awareness and tracking, communities will become more responsive to the factors that result in the surplus of cats that must be dealt with by shelters. The SPI will also increase information that can be used to improve medical management of shelter cats while increasing public awareness of the magnitude of the prob-

lem of homeless, abandoned, marginalized, and feral cats in the community.

Gabapentin for analgesia and anesthesia in cats. Bruno H. Pypendop, DrMedVet, DrVetSci, DACVA, University of California at Davis. \$8,400

As a species, cats often have inadequate pain control due to the side effects associated with traditional analgesic drugs. Gabapentin is a drug that was initially developed as an anticonvulsant. However, it was later found that gabapentin was also useful for the treatment of some types of chronic pain. More recently, gabapentin has been shown to also decrease pain and opioid use after surgery.

Gabapentin may be a good candidate to provide pain relief and decrease anesthetic requirements in cats. It is widely available, its toxicity in other species is minimal, and it is excreted unchanged in the urine. For these reasons, the drug should not be affected by the poor ability of cats to metabolize many drugs. Moreover, gabapentin is thought to exert its anticonvulsant activity at a site where some anesthetic drugs act, making it possible that gabapentin would decrease anesthetic requirements. Since cats tend to be particularly sensitive to the cardiovascular depressant effects of general anesthetics, this may be a good alternative to traditional pain management techniques. Anesthetized cats are usually more hypotensive than dogs at a similar depth of anesthesia. Therefore, combining general anesthetics with drugs that reduce the dose and do not cause cardiovascular depression may be particularly beneficial in this species. Despite its potential benefits, the effects of gabapentin have not been studied in cats.

In this study, the researchers propose to characterize the disposition of gabapentin in cats, to determine whether gabapentin decreases anesthetic requirements, and to characterize the analgesic effects of gabapentin using a model of acute pain.

Genetic Testing for Feline Blood Groups. Leslie A. Lyons, PhD, University of California at Davis. \$15,000

There are over two dozen blood type systems in humans and horses that can be used in identification, parent-age confirmation, and registration. Blood type incompatibilities are known to be responsible for transfusion reactions and neonatal isoerythrolysis in some species.

In cats, only one major blood type system has been identified. Cats have naturally occurring antibodies for non-self blood types. Blood type B cats have naturally occurring antibodies against the type A red cell antigen, hence problems may occur with the first transfusion or pregnancy.

Most cats are blood type A. However, several cat breeds, including the Birman, Devon Rex, and British Shorthairs, have significant numbers of blood type B cats. Thus, breeders must be aware of blood type incompatibility problems. Blood type A is dominant to blood type B. Blood type A cats may carry an allele for blood type B, but the current serological typing methods cannot distinguish these blood type B carriers. The genetic basis for feline blood types is unknown. However, the proteins that determine blood type in cats are defined and are principally due to the form of the acid residues present on a sugar backbone on the surface of the red cells. A gene called cytidine monophospho-N-acetylneuraminic acid hydroxylase (CMAH)

converts the type B sugar to the type A sugar and has been shown to have DNA variants that are 100% concordant with cat blood types. This study will look at cats from unrelated populations, remote populations, and different breeds to distinguish which mutations cause the blood types. If successful, the resulting DNA-based assay will be performed earlier, and will detect blood type A cats carrying an allele for blood type B.

Tissue factor: Initiator of thrombosis and potential therapeutic target in cats with cardiac disease? Tracy Stokol, BVSc, PhD, DACVP, Cornell University. \$19,751

Cats with severe heart disease are at risk for the formation of blood clots that may block circulation and deprive tissues of oxygen. This tissue insult causes sudden and severe pain, paralysis and/or organ failure, and often proves fatal. Cats that survive an initial episode are treated with anti-clotting drugs in the hopes of preventing a second occurrence. To date, no drug has proven effective in preventing recurrent clot formation. A new strategy to prevent this devastating complication of heart disease is urgently needed. The researchers aim to use a novel approach based on specific blockade of a key coagulation protein called tissue factor (TF). Drugs directed against this protein are being tested as anticoagulant agents in various human diseases. Preliminary studies of cats with cardiac disease suggest that TF may promote aberrant clot formation. In this study, researchers propose to develop an assay to detect TF activity on feline white blood cells and to produce a recombinant feline-specific TF inhibitor that may prevent clot formation in feline cardiac patients.

Comparison of Two Drug Protocols for Clearance of Cytauxzoon felis Infections

Leah A. Cohn, DVM, PhD, DACVIM, University of Missouri. \$8,284

Cytauxzoon felis is an emerging infectious disease of domestic cats. Historically, infection of domestic cats with this tick-transmitted protozoal agent has been considered uniformly fatal. Bobcats develop a mild illness after infection, but then recover and live with the infectious stage of the parasite inside their red blood cells for years. When a tick feeds on an infected Bobcat and then on a domestic cat, the infection is passed on. However, the initial infection is more severe in cats and most die. For this reason, domestic cats were not believed to be a source of infection for other cats. Recently, anecdotal reports of cats that survive the acute infection have been published. Like Bobcats, these recovered cats seem to harbor the infectious red cell parasite for years. This might mean that recovered cats could serve as a reservoir of infection for other cats, even in urban and suburban areas with few Bobcats. This could help explain the seeming recent expansion in the geographic regions reporting this disease, which now covers the South Central, Southeastern, and Mid-Atlantic USA. As more cats survive infection, they could pose a risk of spreading the infection if

the organism cannot be eliminated. The researchers have identified a unique population of healthy but infected pet cats in one household. With the owner's permission, they propose to compare the ability of two anti-protozoal drug regimens to eliminate the chronic stage of infection in these cats.

Screening for Antibodies to the 7b Protein of Feline Coronavirus in Cats for Detection of Persistent Infection.

Melissa Kennedy, DVM, PhD, University of Tennessee. \$14,750

Feline coronavirus is a common virus of both domestic and non-domestic felids. In a small percentage of infected felines, a fatal systemic disease, feline infectious peritonitis (FIP), develops. Diagnosis of FIP, as well as management of coronavirus in multi-cat environments, is hampered by the fact that no assay specific for the virulent form of the virus exists. Some animals do not clear the normally benign coronavirus, remaining persistently infected for long periods. As the virus continues to replicate, mutations may arise. These mutations may lead to the production of FIP-producing virus. Thus, identification and removal of chronically infected cats is desirable in multi-cat environments. Current methods rely on the testing of feces for virus over several months. Previous investigations by the researcher have shown that expression of the 7b protein by the virus is common in cats with FIP and their healthy housemates, as well as animals known to be persistently infected with the virus. The researchers propose to investigate the correlation of 7b expression (indicated by the presence of the specific antibody) with chronic virus shedding. If a correlation exists, testing for 7b-specific antibody would offer a quick and reliable method for identification of persistently infected animals, aiding management of multi-cat situations to reduce the risk of FIP.

Thank you for your continuing support of the Winn Feline Foundation. Your donations will allow us to continue our important efforts to improve the health and well-being of all cats.

The Winn Feline Foundation is a 501(c)(3) nonprofit organization.

Donations to Winn are tax deductible.

Participant in the National CFC



Kim Thornton Receives Winn Media Appreciation Award

Well-known journalist and editor Kim Campbell Thornton recently received the Winn Foundation's Media Appreciation Award. Winn President Dr. Susan Little said, "Kim's writing has been an important educational tool for helping the pet-owning public understand the health and welfare of cats." The Winn board also recognizes Kim for her assistance in raising public awareness about the Foundation and its work to improve the lives of all cats. Upon receiving the award, Kim commented, *"I'm really very honored and pleased. I think Winn does wonderful work and am always happy to let people know about it."*

Kim Thornton served as an editor at Fancy Publications (now Bowtie), before beginning a new career in 1996 as a freelance writer, launched by her book, *Your Aging Cat*. Her articles appear in many pet and veterinary publications. In recent articles, Kim has discussed the important role that genetic discoveries are playing in veterinary medicine, ways to curb feline obesity, and the ritual and memorials that can help you say goodbye to a beloved pet. She currently writes a monthly pet column called Creature Comforts for MSNBC.com.

Perspectives

by Janet Wolf

I would like to share with you a portion of the "Message from the Dean" printed in *INSights*, a publication of the College of Veterinary Medicine and Biomedical Sciences, Fall 2006. Lance Perryman, DVM, PhD, Dean helped put the research that organizations like Winn fund into perspective. "Scientists around the world . . . are busy doing the intricate work of science that rarely makes it into mainstream media, but it is essential to the advancement of human and animal health.

In this edition of *Insight*, you'll have the opportunity to learn about research programs at the College that are tackling some of our society's greatest concerns including infectious diseases, debilitating injuries, cancer and radiation biology, . . . It is work that is slow and laborious, frustrating and rewarding, detailed and painstaking, with hard won answers usually leading to more questions. Success is measured in small increments, as the sum of research programs from around the world lead to the 'break-throughs' gained, usually after countless years of supportive research."

Thanks to your donations, Winn is helping researchers make those small steps that eventually lead to major breakthroughs in feline health diagnosis, treatment, and prevention.

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