



WINN NEWS

FOR THE HEALTH AND WELL-BEING OF ALL CATS

Winter 2005

PRESIDENT'S COLUMN

You may have noticed mention of the Winn Feline Foundation in both print and other media this year. Since Winn is an authority on feline health, journalists often consult the Foundation to provide content for their stories. This fall, you will see articles based on Winn-funded research in "Cats and Kittens" Magazine, "CatWatch" newsletter (Cornell University), and the "Creature Comforts" feature on MSNBC.com. The Purina Pro Club newsletter regularly features interviews with researchers about their Winn-funded projects. The American Animal Hospital Assoc. and the American Assoc. of Feline Practitioners have featured Winn-funded research in their veterinary newsletters this year. Winn has invaded the TV and radio airwaves as well. I have had the pleasure of talking about Winn's activities on Steve Dale's Pet Central radio show (WGN Chicago) several times as well as appearing on Channel 5 TV in Chicago (NBC) in a news segment about hypertrophic cardiomyopathy. The Winn Feline Foundation is committed to public education about feline health issues. Every donation to Winn helps further this goal - Thank you!

Susan Little DVM, DABVP (Feline)

WINN RESEARCHER NAMED 2005 OUT- STANDING WOMAN VETERINARIAN OF THE YEAR.

Dr. Julie Levy was recently recognized by the Association for Women Veterinarians as their "Outstanding Woman Veterinarian of the Year." This award recognizes special achievement by a woman veterinarian in any area of veterinary medicine. Currently an associate professor with the small animal service at the University of Florida, Dr. Levy is an

active advocate for humane control of feral feline populations. She founded Operation Catnip, a non-profit group-credited with neutering over 17,000 feral cats to date.

Dr. Levy has investigated non-surgical contraception, effective antibiotic treatment for kittens, and infectious diseases of feral cats in research supported by the Winn Feline Foundation. In 2004, Dr. Levy received the Norden Distinguished Teaching Award and she has an extensive list of publications to her credit. Dr. Levy has shown great aptitude for bringing teams of researchers together to tackle difficult feline health issues. Thanks to your donations, Winn has been honored to support Dr. Levy's research.

Hypertrophic Cardiomyopathy (HCM) in Maine Coons

The Winn Feline Foundation is extremely pleased to acknowledge a remarkable advance in the field of feline cardiology. A Winn-funded group of dedicated researchers that has been studying hypertrophic cardiomyopathy (HCM) in Maine Coon cats for many years announced at the 23rd Annual Forum of the American College of Veterinary Internal Medicine in Baltimore, Maryland this past June, that it had identified a gene mutation that is present in all members of a family of Maine Coon cats afflicted with HCM.

The genetic link has been suspected for a long time and is of huge importance, since other tests for determining the presence of HCM in cats are less than perfect. A test for a genetic marker will provide an easy and incontrovertible diagnosis. While this knowledge can only be applied to the Maine Coon cat for now, it does, according to Susan Little, DVM, and President of the Winn Foundation, "Represent a major step towards the day when this very difficult disease can be recognized early enough for a cat to be helped by medica-

tion and before a cat enters a breeding program and passes the defect on to further generations."

"We are doubly thrilled that this wonderful discovery was made by a group whose efforts at advancing the detection and treatment of this heartbreaking disease have been funded for many years by the Winn Foundation and The Ricky Fund," adds Dr. Little. The dedication of hundreds of breeders and pet owners who have donated to Winn for HCM research over the years has been well rewarded. The Ricky Fund was established within the Winn Foundation by well-known Chicago media personality, Steve Dale, in memory of his Devon Rex cat, Ricky, who died suddenly of HCM. The Winn Foundation funds nearly \$200,000 in grants each year to researchers working to advance feline health.



Winn Welcomes New Veterinary Consultant

The Winn Foundation is pleased to announce the addition of Dr. Steve Chu to its outstanding board of veterinary consultants. Winn Foundation President Susan Little, DVM, stated, "We are extremely pleased that we will have Dr. Chu's considerable expertise to help guide the Foundation's grant decisions at our review meetings."

Dr. Chu was born in Taiwan, where he completed his degree in veterinary medicine as well as a Master's Degree in veterinary virology at the National Taiwan University. He was granted a PhD (Microbiology) from the University



of California, Davis, in 1984. In 1987 he joined Fort Dodge Laboratories, where he has been involved in virology research and instrumental in the development of many of the company's important vaccines. At present, Dr. Chu is the Senior Vice President for Global Research and Development at Fort Dodge. Since he has widely published in the areas of veterinary viral diseases and immunology, Dr. Chu's name also appears on patents for several vaccines, including one for the prevention of chlamydia in cats.

Each year the Winn Foundation awards nearly \$200,000 in grants for feline health research. The Foundation's panel of reviewers and veterinary consultants, through the generous donation of their time and talents, ensures the best research projects are selected for funding each year.

Seven Important Feline Health Grants Announced

The Winn Feline Foundation, designated by the George Sydney and Phyllis Redman Miller Trust as one of its advisor organizations to "support medical research to investigate the causes, prevention and development of cures for diseases of . . . domestic cats," recently recommended seven exciting research projects to the Trust for funding. Winn President Susan Little, DVM, Diplomate ABVP (Feline), expressed her pleasure that the expertise of the Foundation and its veterinary consultants has been called upon to assist in the distribution of these funds. "This year," she said, "we awarded \$101,288 in grants for studies of heart disease, pain management, corneal ulcer repair, vaccination-site sarcomas, and two on infectious diseases - feline herpesvirus and feline infectious peritonitis."

Winn is the only international charity devoted solely to the advancement of feline health.

Questions to be investigated:

Can an ancient defense mechanism against viral infections in yeast, plants, and mammals help prevent or cure cat flu? *"RNA interference of the glycoprotein-D and DNA polymerase genes of feline herpesvirus by synthetic siRNAs," Rebecca P. Wilkes, DVM, PhD, and Stephen A. Kania, BS, MS, PhD, University of Tennessee.*

Feline Herpesvirus 1 (FHV-1) is one of the most prevalent viral diseases of cats, manifesting clinical signs such as ocular and nasal discharge, conjunctivitis, rhinitis, tracheitis, and depression. Veterinarians and owners are frustrated by the lack of effective antiviral drugs and treatments specifically for FHV-1. Many cats still become ill and most become carriers.

The discovery of a defense mechanism against viral infections inherent in yeast, plants, and animals -- RNA interference -- offers the possibility of using a feline's own cellular machinery to destroy viruses. RNA, inserted into cells, binds to the virus and destroys it. This procedure has been demonstrated to be effective in certain mammalian viruses, and the proposed study seeks to determine the feasibility of using the mechanism either to prevent or treat FHV-1.

Is there a new drug to treat pain in cats? *"Tramadol: a new analgesic for use in cats," Bruno H Pypendop, DrMedVet, DrVet Sci, Dipl. ACVA and Jan E Ilkin, BVSc, PhD, Dipl. ECVA, University of California, Davis.*

Veterinarians have few options in treating pain in cats, despite its importance both to them and to their patients. Some drugs have unacceptable side effects; while others are poorly tolerated in cats. Tramadol is an analgesic drug that has been used successfully for the past 20 years in people, and it has recently been shown to be useful and safe in dogs.

With few alternatives for oral analgesia in cats, the drug is in current clinical use for felines. Research is needed to determine

the safety, efficacy, and behavior of tramadol in cats. This study proposes to provide these answers and to establish rational dosing recommendations.

How many apparently healthy cats have heart disease? *"Incidence of occult heart disease in apparently healthy mixed breed cats," Sonya G. Gordon, BSc, DVM, DVSc, DACVIM, Risa Roland, DVM, Matthew W. Miller, DVM, MS, DACVIM, Ashley Saunders, DVM, DACVIM, and Lori Drourr, DVM, Texas A&M University.*

Many seemingly healthy adult cats are diagnosed with heart murmurs by their veterinarians. Heart murmurs may indicate heart disease or they may not, and cats that do not have heart murmurs may still have heart disease. What percentages fall into which category is a mystery. The possible incorrect diagnosis of heart disease leading to unnecessary lifelong medication stresses the relationship of cats and their owners, because most cats resent forced medication.

This study will evaluate 100 apparently healthy adult mixed-breed cats of various ages to determine cats with murmurs and cats without murmurs. Ultrasound of all cats will then reveal the underlying heart disease of those with murmurs and those without murmurs. Those with heart disease will be re-evaluated annually for 3 years. Data from this study will be entered into a new web-based feline cardiac registry for use by other researchers in the design of future studies.

Can the mutation causing an inherited feline craniofacial defect be identified? *"Identification of the mutation for an inherited feline craniofacial defect," Leslie Lyons, PhD, University of California, Davis.*

In 1970, approximately 40 years after its introduction into the United States as a breed of cats, the Burmese suffered a defective genetic mutation. Associated with this defect, though unknown at the time, was a dramatic change in the appearance of the head of the Burmese to an extreme, yet pleasing, roundness from any perspective. Subsequent litters of these



"contemporary" Burmese led occasionally to kittens manifesting duplication of the upper jaw, often accompanied by incomplete formation of the cranium, a condition incompatible with life. Research has identified a region of the genome that is linked to this problem, proven to follow an autosomal recessive mode of inheritance. This research will focus on the sequencing of the HOXC cluster of genes linked to this phenotype from both affected and unaffected cats to identify mutations causing this inherited defect.

Will a different approach produce understanding of feline infectious peritonitis (FIP)? *"Phase II Studies on the Heritability of Resistance/Susceptibility in Feline Enteric Coronavirus Infection in Randomly-bred, Colony-reared, Domestic Cats," Niels Pedersen, DVM, PhD, and Leslie Lyons, PhD, University of California, Davis.*

Neither feline enteric coronavirus infection (FECV) nor its lethal sequel, feline infectious peritonitis (FIP), can be successfully prevented by vaccination. Despite the fact that the majority of cats suffering FECV follow an intermediate disease course alternating between infection, immunity, loss of immunity and re-infection and others become persistent fecal shedders, approximately 20% of infected cats develop strong immunity and no longer shed virus. This suggests the possibility of genetic selection for resistant individuals.

Utilizing the resources of a large specific pathogen-free domestic breeding colony, this study will attempt to create two groups of breeding cats representing extremes in immunity: cats that develop strong immunity; cats that remain chronically affected. Through planned breedings within each group, the kittens produced will be tested for their pattern of FECV immunity. Should progeny eventually breed true for either resistance or susceptibility, future studies will examine the genetic basis for these traits with the hope of finding genetic markers for breeding cats with excellent FECV immunity.

Can stem cells be used to treat feline corneal ulcers? *"Repair of Feline Corneal Ulcers with Mesenchymal Stem Cells," P. Richard Vulliet, PhD, DVM and David Maggs, BVSc., University of California, Davis.*

Adult bone marrow stem cells (MSCs), demonstrated to differentiate into cells that secrete a variety of proteins, will be used to investigate growth conditions leading to their development as corneal epithelial cells. Immunological techniques will be utilized. Three days after MSCs from recipient cats, grown in a protein gel, have been placed on anesthetized ulcerated corneas under a protective lens, the lens will be removed and the eye examined for engraftment, differentiation of the MSCs, and healing of the ulcer. The researchers expect to find grafting taking place, as well as differentiation of the MSCs and an improvement in corneal clarity. These anticipated results will decrease recovery time. Similar or identical studies to this project are currently being performed in humans with remarkable success.

Can better understanding of vaccine-associated sarcoma and oral squamous cell carcinoma be achieved? *"Expression and Pharmacologic Inhibition of Anti-Apoptotic BCL-2 Family Members in Feline," David M. Vail, DVM, DACVIM (Oncology), Douglas H. Thamm, VMD, DACVIM (Oncology), and E.J. Ebrhart III, DVM, PhD, DACVP, Colorado State University.*

Vaccine-associated sarcoma (VAS) and oral squamous cell carcinoma (OSCC) are

two of the most common and troubling feline tumors encountered in cats, and a better understanding of the biology of these diseases is incident to effective treatment. Since a group of proteins in the Bcl-2 family are important in inhibiting cell death in many forms of cancer, blocking the function of these proteins may make traditional treatments more effective in both humans and companion animals. The hypothesis to be tested is that blocking the function of Bcl-2 family members, if detectable in feline VAS and SCC, with the small molecule ABT-737 will result in significant enhancement of chemotherapy effectiveness. The researchers will use feline cell lines and tissues for preliminary investigation, and nude mice infected with growing VAS tumors to test the effect of ABT-737 on growth and chemotherapy sensitivity of the tumors.

ROYAL CANIN RAISES FUNDS FOR WINN AT CFA INTERNATIONAL CAT SHOW

A sponsor of this year's International Cat Show in San Mateo, Royal Canin sold sample bags and special cat food packs con-



taining some of their outstanding dry cat food. They graciously donated the proceeds to the Winn Feline Foundation. This is the second year, Royal Canin has helped raised funds for and awareness of Winn and the health studies it funds. Thanks to the exhibitors, the large gate, and hard work on the part of the Royal Canin staff, they donated \$569 at the show.

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.

Your Donations to Winn maybe tax deductible.

Participant in the National CFC, # 2602

Thanks to Jacquie Shapley, Kate McMahon, and David Frost for their help in putting this issue of the Winn newsletter together.



Winn Feline Foundation Announces FIP Fund

(November 18, 2005)

Susan Little, DVM, President of the Winn Feline Foundation, announced today the creation of a fund, the Bria Fund for FIP Research, dedicated to the study of Feline Infectious Peritonitis (FIP).

Bria was a nine month old Lynx Blue Point Birman kitten, who died from complications of FIP on April 19, 2005. FIP is a fatal disease affecting primarily very young and older cats. There is no accurate blood test for FIP and no cure.

Bria was the much loved pet of Susan Gingrich and her husband, James Shurskis, of Harrisburg PA. Susan is the sister of Newt Gingrich, former Speaker of the US House of Representatives, Candace Gingrich, gay activist, and education leader, Roberta Gingrich Brown. Although the Gingrich family does not agree politically, they share a love of animals, cats in particular. Bria and her short life touched and saddened the entire family.

The Center for Health Transformation, founded, by Newt Gingrich, provided a generous contribution to establish the Bria Fund for FIP Research. The Center focuses on policies and solutions that create better health for all through the creation of a 21st Century Intelligent Health System that saves lives and saves money. It has long recognized and appreciated the quality that pets give to human lives.

In memory of Bria, the fund will advance FIP research to hopefully someday eliminate it, or at the very least, to develop an accurate test and make FIP a treatable, chronic illness.

Steve Dale Honored by The Winn Feline Foundation

Meeting in Chicago in October, 2005, The Winn Feline Foundation Board of Directors presented well-known radio personality and syndicated columnist, Steve Dale, a plaque commemorating his "tireless support and advocacy for the health and well-being of all cats." The award was announced by the Foundation president, Susan Little, DVM, Diplomate ABVP (Feline), during a radio broadcast of Steve's Pet Central on WGN Radio. Steve is also the host of a daily syndicated program, The Pet Minute with Steve Dale and the hour-long Steve Dale's Pet World, as well as his newspaper column syndicated in more than 100 newspapers, My Pet World. Further, he is a contributing editor at USA Weekend.

Celebrated for his tireless efforts on behalf of cats, Steve established the Ricky Fund at Winn in 2002 in memory of his beloved Devon Rex cat, Ricky, who died of hypertrophic cardiomyopathy (HCM). The fund has accumulated over \$60,000 for research studies of this devastating disease, and has aided researchers in discovering the gene for HCM in one breed of cat, the Maine Coon. This stunning breakthrough achievement was announced on November 4 by a team of researchers at the University of California, Davis, The Ohio State University, and the Baylor College of Medicine.

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www.WinnFelineHealth.org

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