GROWTH AND STABILITY IN TIMES OF CHANGE

Morris Animal Foundation 2011 Annual Report

MORRIS ANIMAL FOUNDATION

Est. 1948


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Dear Friends,

Times of transition can be both exciting and challenging for people—and for organizations. Morris Animal Foundation experienced its own transitions in fiscal year 2011, perhaps the biggest being the departure of its well-respected CEO, Dr. Patricia Olson. I feel excited and humbled to have been selected to lead the next phase of this organization that has such an amazing reputation and a 63-year history of advancing animal health.

I recognize, though, that a change in leadership can sometimes lead to unease among staff, board members, partners and supporters. Through proactive communication, a thorough respect for the Foundation's history and people and lots and lots of listening, I am confident we can all move through this transition smoothly and efficiently. What I've experienced during my first few months at the Foundation has been remarkable. I have found myself surrounded by people willing to embrace new ways of thinking—even if it means new ways of doing. This is a group of people who are totally committed to doing what it takes to continue Morris Animal Foundation's mission to improve animal health and well-being. That is, after all, our reason for being.

And the results we've achieved show that passion and commitment. While many organizations have shrunk over the past few years, Morris Animal Foundation has experienced steady growth. In fiscal 2011, we provided $8 million to fund 154 animal health studies. This annual report highlights just a few of the successes that took place. Science moves forward incrementally, and by being able to support so many researchers investigating such a broad portfolio of critical health issues, Morris Animal Foundation is undoubtedly contributing to the advancement of our understanding of diseases and conditions specific to companion animals and wildlife.

We will continue to grow in the coming years and to find new ways to advance veterinary medicine. We have a lot of people—and animals—counting on us. Morris Animal Foundation is the only organization in the country that supports science that leads to longer, healthier lives for cats, dogs, horses and wildlife. It's thanks to you that we are able to continue our work.

In times of transition, some things change but many things stay the same. At Morris Animal Foundation, what will always stay the same is our commitment to creating a healthier tomorrow for animals. Thank you for joining us on the journey.

Kind regards,

David Haworth, DVM, PhD
President/CEO

Morris Animal Foundation has been a leading canine health organization since 1950, and with $3.7 million in funding for dogs last year, we put our money where our barks are.

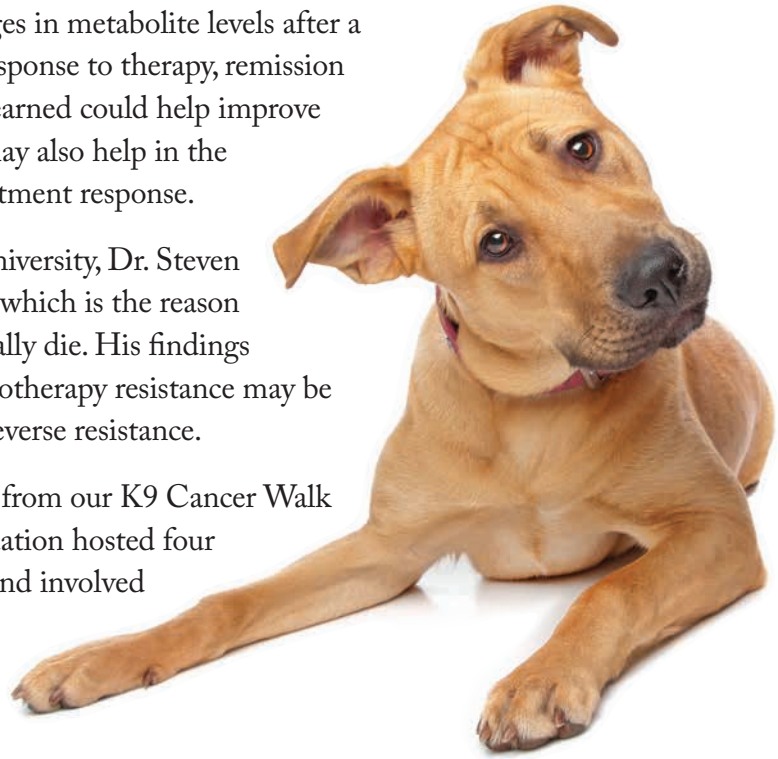
dogs

Barking for a healthier tomorrow

Studies work toward better cancer treatments

Cancer remains the top health concern among dog owners, and in fiscal year 2011, Foundation-funded studies had great success in improving treatment for dogs. Dr. Barbara Biller, of Colorado State University (CSU), tested metronomic chemotherapy, a novel method of administering chemotherapy that involves frequent, low-level doses of drugs rather than higher doses given at longer intervals. Metronomic chemotherapy causes fewer side effects, is easier to administer and is less expensive than conventional chemotherapy. Her research team identified a dosage of the drug cyclophosphamide that appears to slow the growth of soft-tissue tumors by decreasing their blood supply.

Another researcher at CSU, Dr. Susan Kraft, used nuclear magnetic resonance spectroscopy to measure whether changes in metabolite levels after a dog's first treatment could predict its response to therapy, remission time or long-term survival. What she learned could help improve the development of cancer drugs and may also help in the immediate evaluation of a patient's treatment response.



Meanwhile, at North Carolina State University, Dr. Steven Suter studied chemotherapy resistance, which is the reason why most dogs with lymphoma eventually die. His findings provide compelling evidence that chemotherapy resistance may be overcome by using specific drugs that reverse resistance.

Support for these studies came, in part, from our K9 Cancer Walk Program. In fiscal year 2011, the Foundation hosted four walks that raised more than $235,000 and involved nearly 2,000 participants.

Dogs get a leg up on joint disease

Large dogs often suffer from knee problems, including cranial cruciate ligament (CCL) disease, which occurs when an important ligament in the knee joint tears. Two types of surgical treatments are used to stabilize the knee and slow the progression of degenerative joint disease in dogs: lateral fabellar suture and tibial plateau leveling osteotomy (TPLO). Dr. Wanda Gordon-Evans, of the University of Illinois, compared the surgeries and determined that TPLO surgery is more effective in large and giant breed dogs. This study will help veterinarians counsel owners on the best surgical intervention for dogs suffering from CCL disease.

In another study, Dr. Vicki Wilke, of the University of Minnesota, undertook a genetic search to determine whether gene mutations contribute to cranial cruciate ligament rupture (CCLR) in Newfoundlands. Her data lay the groundwork for scientists to develop a genetic test to identify Newfoundlands with a predisposition to CCLR. Such a test would allow owners to modify their pet's environment and lifestyle to minimize its chances of developing clinical signs of CCLR. It might also help in the development of new therapies.

New tools help diagnose canine flu

Canine influenza virus (CIV) is a highly contagious respiratory infection that can progress to life-threatening pneumonia and sometimes death. Dogs housed in group settings, such as shelters and boarding facilities, are at highest risk for exposure to the virus. Last year, Dr. Cynda Crawford, of the University of Florida, used a new test to analyze the prevalence of CIV and other respiratory pathogens in shelters. She discovered that CIV, canine distemper virus and canine respiratory coronavirus are the most prevalent viruses and that dogs are frequently co-infected with a combination of these viruses. The researchers will soon develop recommendations to shelter managers to help them minimize the spread of these infections.

MORE CANINE SUCCESSES

Last year, Morris Animal Foundation funding also helped scientists

- **Determine that citrulline supplements may improve the health of dogs with parvovirus enteritis**
- **Discover that adding a DNA detection test to the conventional test significantly improves the ability to diagnose a serious bacterial infection that can lead to heart failure**
- **Identify possible viral causes of brain inflammation in dogs, which will allow for the development of specific therapeutic interventions and improve survival rates**
- **Assess new data that may help veterinarians manage urinary stones using probiotics**

cats

Cats don't get their fair share of health care, and we're working to change that. Over the past few years, we've significantly increased our feline funding—to $1.7 million in FY11.

Meowing for a healthier tomorrow

Research helps cut the coughing in shelters

Feline upper respiratory infection (URI) is the most frequent cause of illness for shelter cats and one of the top reasons they are euthanized. This infection can cause acute and chronic health problems that affect a cat's adoptability and long-term quality of life.

With Foundation funding, Dr. Kate Hurley, from the University of California–Davis, compared the rate of disease among 15 shelters and collected information on their environmental and husbandry practices. She also analyzed the costs of managing feline URI and found that it required 30 percent or more of the feline care resources in the participating shelters. The study findings clearly demonstrated that changes in the shelter environment and management practices can dramatically decrease disease transmission. These results provide shelter managers with better guidance on how to reduce the incidence of URI, thus saving the lives of shelter cats and freeing up resources for other important programs to benefit all shelter animals. In addition, Dr. Hurley developed a new cage design that reduces stress, and shelters worldwide have started purchasing these cages.

Drug therapy holds promise for treating oral cancer

Oral squamous cell carcinoma (OSCC) is one of the most common cancers in cats. These painful tumors prevent many affected cats from eating, swallowing or grooming, and most cats survive less than three months after diagnosis. Surgery is only effective if the disease is identified early. Dr. William C. Kisseberth, of the Ohio State University, investigated a new class of anticancer drugs that have been found to

inhibit tumor growth in humans and mice. He determined that the drugs, known as histone deacetylase inhibitors, also have anticancer effects on feline OSCC cells. More clinical trial testing is needed before the drugs can be used in veterinary clinics, but the researchers hope that these anticancer drugs can provide new therapies for cats suffering from oral cancer.

Gait analysis helps identify osteoarthritis pain

Osteoarthritis is a common and painful joint disease in cats, yet no medication is currently approved to help alleviate the painful clinical symptoms of this disease. To assess pain treatment, it is important to know how and where the pain occurs. Dr. Eric Troncy, at the University of Montreal, used quantitative gait analysis to determine how osteoarthritis affects a cat's function levels and magnetic resonance imaging to assess structural changes in the cat. This new platform can now be used to evaluate the efficacy of drugs that could improve quality of life for cats with arthritis.

MORE FELINE SUCCESSES

Last year, Morris Animal Foundation funding also helped scientists

- Improve the diagnosis and treatment of feline conjunctivitis, a common chronic infection that affects the eyes
- Determine that *Salmonella* infection in cats primarily comes through food, particularly raw or undercooked beef, and that cattle are a likely reservoir for multidrug-resistant strains in commercial pet food
- Identify that *Cytauxzoon felis*, a parasite that previously caused fatal disease in cats, may be genetically adapting to cause less severe disease, meaning that the prognosis for infected cats is no longer so grim
- Confirm that combined dietary and medicinal therapy is helpful in reducing the incidence of painful urinary stones in cats and identify new information that could help researchers develop more effective therapies

With more than $900,000 in funding last year for horses, llamas and alpacas, Morris Animal Foundation remains committed to the large animals that many people consider part of the family.

large animals

Galloping toward a healthier tomorrow

Study reveals safer drug for pain relief

Colic is a major cause of death in horses and a top area of funding for equine health research. Surgical removal of injured intestine is frequently necessary, but complete removal of damaged intestine is not always possible. Horses often receive flunixin (trade name Banamine) to alleviate pain after surgery, but the drug has been shown to inhibit intestinal healing. Dr. John Marshall, from North Carolina State University, learned that a new pain-relief drug, robenacoxib, does not interfere with intestinal healing. His findings also suggest that robenacoxib will reduce the passage of harmful pathogens, including bacteria, across the intestine, thereby minimizing complications. This drug promises safer and faster healing after colic surgery.

Two drugs can reduce blood clotting

Another major concern for horses is laminitis, which causes severe pain and lameness and may result in euthanasia. As laminitis develops, the horse's platelets become activated and express proteins that increase the risk for blood clotting. Antiplatelet drugs may decrease expression of these proteins, thereby limiting the complications caused by blood clots.

Dr. Benjamin Brainard, from the University of Georgia, compared the antiplatelet effects of clopidogrel and aspirin in horses and demonstrated that clopidogrel is safe and is more effective than aspirin in inhibiting platelet clumping. Further study is needed to determine whether the drugs have similar effects in reducing the severity of the disease. The research data will be used to improve therapies for equine diseases linked to blood clots.

Better diagnosis for congenital disease in llamas and alpacas

Choanal atresia (CA) is a common inherited congenital disease that affects alpacas and llamas. It is caused by abnormal development of the nasal passages, which prevents airflow from the nose to the larynx. The condition results in open-mouth breathing in newborns and predisposes them to fatal aspiration pneumonia. CA is similar to CHARGE syndrome in humans, for which the genetic mutation (CDH7) has been identified. Dr. Anibal G. Armien, of the University of Minnesota, tried to determine whether CDH7 is associated with CA in alpacas and llamas but found that complete sequencing of the CDH7 gene will be needed to determine if other mutations in the gene are the cause of CA in llamas and alpacas. His research team identified patterns of malformation that are associated with CA in these animals, and the findings will provide veterinarians with a better way to diagnose CA and differentiate it from other diseases.

MORE LARGE ANIMAL SUCCESSES

Last year, Morris Animal Foundation funding also helped scientists

- **Identify a new approach for treating inflammatory diseases in horses**
- **Pave the way for new research into the link between sugar metabolism and obesity**
- **Determine that newborn foals have poor immune responses to vaccination, which will help in developing vaccines that will stimulate the appropriate type of immune response in newborn foals**
- **Prove the limitations of deworming drugs for llamas and alpacas, which will help owners and veterinarians make more informed decisions when deworming**

wildlife

Though cats and dogs are at the heart of Morris Animal Foundation's mission, we also work passionately to improve the lives of hundreds of species of wildlife. The Foundation is the only organization that funds health studies for wild species, and last year we funded nearly $1.7 million.

Believing in a healthier tomorrow

Red tides affect marine life survival

North Atlantic right whales are one of the most critically endangered whale species in the world, and impaired reproduction is contributing to their lack of recovery. With Morris Animal Foundation funding, Dr. Rosalind Rolland, from the New England Aquarium, learned that these whales are exposed to biotoxins, known as red tides, and protozoan infections. Lactating and pregnant females have the highest biotoxin levels. Scientists also discovered that whales infected with one of the protozoa are thinner and have poorer body condition than whales that are not infected. This was the first study to assess whether biotoxins and protozoa affect the health of whales, and the findings may improve the chance for the species' survival.

Red tides also adversely affect dolphins, which face repeated and chronic exposure to toxins. Dr. Sylvain De Guise, from the University of Connecticut, learned that brevetoxins have potentially harmful effects on the immune system in bottlenose dolphins. The findings can help veterinarians, rehabilitators and wildlife managers care for these marine mammals and guide decisions on whether animals are suitable for release back into their environment after exposure.

Wild animals suffer from stress

Human activities may result in long-term stress and health problems in individual animals. Dr. David Janz, of the University of Saskatchewan, developed a technique to measure cortisol, a primary stress hormone, in hair collected from grizzly bears and polar bears. This sensitive, reliable and noninvasive test will help conservation managers assess the health of wild animal populations, particularly large mammalian carnivores such as bears.

In another study, Dr. Patrick Redig, of the University of Minnesota, used fecal hormone monitoring to assess stress in injured owls undergoing rehabilitation. Dr. Redig's team established a way to clearly quantify the stress response of an individual animal at any given time so that interventions can be made. This study will help improve the management and health outcomes of injured raptors throughout the rehabilitation process.

Species survival banks on genetic research

As species undergo rapid population declines, science is turning to genome banks and assisted reproduction as a hope against extinction. Coral reefs—which are critical to the health of the oceans—are dying throughout the world because of human impact. Dr. Mary Hagedorn, of the Smithsonian Institution, hopes to save coral from extinction, and with Foundation funding, she led a team that successfully froze sperm from endangered Elkhorn coral and created a genetic bank that is now housed in three locations around the world. They also developed a better method for transporting coral larvae that improves their survival rate and will help public zoos and aquaria to form live banks. In addition to providing coral for restoration projects, development of the ability to culture coral cells in the laboratory will provide a much-needed tool for identifying causes of and potential treatments for a variety of coral diseases.

At the University of Sydney in Australia, Dr. Justine O'Brien is working to save Tasmanian devils, which once lived in abundance throughout Australia. Their population is rapidly declining because of a fatal and contagious epidemic of facial tumor disease that spreads during breeding. Her study helped establish the first Tasmanian devil genome bank, which will help conservationists learn more about captive breeding efforts for devils and may help save this species from extinction.

Birds and reptiles get more effective pain management

Pet owners know how important pain management is to the recovery and health of their pets. The same holds true for wild animals that live in captivity, including birds and reptiles. With Morris Animal Foundation funding, Dr. Joanne Paul-Murphy and scientists from the University of Wisconsin learned that administering the analgesic nalbuphine to birds after surgery provides a longer period of effective analgesia than current therapies. Using these findings, veterinarians will be able to improve current methods of alleviating pain in parrots and other birds.

Another study will help veterinarians prescribe pain medication for bearded dragons, a reptile commonly kept as a pet. Previously, Dr. Cheryl B. Greenacre, of the University of Tennessee, used funding from Morris Animal Foundation to show that various pain relievers are effective in bearded dragons but move quickly through the bloodstream. Her most recent study determined how long and at what level pain-relieving drugs remain in the bloodstream of bearded dragons. Veterinarians can now use this information to appropriately prescribe pain-relieving drugs to bearded dragons.

MORE WILDLIFE SUCCESSES

Last year, Morris Animal Foundation funding also helped scientists

- **Unravel the mysteries of the panda diet and provide better nutrition for pandas in captivity**
- **Find new information to help prevent a fatal herpesvirus from spreading and killing captive elephants**
- **Decrease ear mite infestation, and possibly ear canal cancer, in endangered island foxes**
- **Discover that stress-reducing drugs may inhibit reproduction in captive zoo animals, particularly antelope and zebras**

Funding a healthier tomorrow

Financial Report

Morris Animal Foundation finished the year in sound financial position, benefiting from its loyal donors, who contributed a total of more than $11 million. With improvements in the financial markets, the endowment ended the fiscal year at $71.6 million.

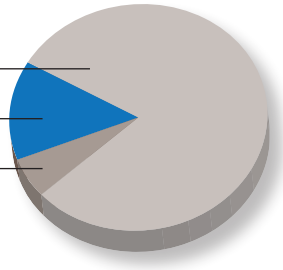
The Foundation receives funding primarily from individual donors, corporations and foundations. These donations provide the necessary funds to award grants to veterinary and animal-related institutions around the world and to support the operational infrastructure of the Foundation.

The fiscal year 2011 annual audit was conducted by RubinBrown LLP. For a complete set of audited financial statements, contact the chief operating officer at 303.790.2345 or mailbox@MorrisAnimalFoundation.org.

Endowment Report

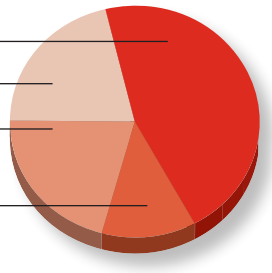
Morris Animal Foundation's endowment continued to provide a stable stream of payouts for current grants and expenditures. The endowment's primary objectives are to generate sufficient returns over the long term (five to 10 years) and to maintain spending without depleting the real value of its assets. The endowment began the fiscal year with assets of $65.9 million and ended with assets of $71.6 million. The endowment payout provided $4 million to support programs and operations. The investment return for the year was 12 percent, reflecting the recovery in world financial markets.

Allocation of Dollars	2011	Percentage
Program	$10,446,826	80%
Fundraising	$1,812,752	14%
Management & General	$844,477	6%
Total	**$13,104,055**	



FY11 Funding by Species

Dog	46%
Wildlife	21%
Cat	21%
Horse/Llama/ Alpaca	12%



Funding a healthier tomorrow

CONSOLIDATED STATEMENT OF ACTIVITIES

	Year ended June 30, 2011	Year ended June 30, 2010
Revenue		
Contributions	$11,159,970	$8,957,597
Investment Income	$8,563,673	$7,991,720
Other Income	$313,335	$109,321
Donated Services	$963,643	$704,694
Total Revenue	**$21,000,621**	**$17,763,332**
Program		
Health Study Grants	$7,757,720	$7,566,280
Veterinary Student Scholars	$273,450	$290,000
Program Awareness	$539,702	$641,616
Grant Management	$931,518	$710,001
Grant Evaluation	$944,436	$607,444
Total Program	**$10,446,826**	**$9,815,341**
Support Services		
Management & General	$844,477	$974,700
Fundraising	$1,812,752	$1,323,951
Total Support Services	**$2,657,229**	**$2,298,651**

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

	Year ended June 30, 2011
Assets	
Cash and Cash Equivalents	$1,526,030
Receivables	$37,137
Prepaid Expenses	$28,482
Investments at Market Value	$80,950,944
Fixed Assets, Net of Depreciation	$88,494
Total Assets	**$82,631,087**
Liabilities	**$3,466,757**
Net Assets	
Unrestricted	$29,896,903
Temporarily Restricted	$9,513,422
Permanently Restricted	$39,754,005
Total Liabilities and Net Assets	**$82,631,087**

Morris Animal Foundation has received the highest charity rating.

MORRIS ANIMAL FOUNDATION
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