



**Morris Animal**  
FOUNDATION



# CANINE REPORT 2016

Since 1950, Morris Animal Foundation has provided financial support to address the critical health needs of our canine companions. From our first studies on diet and general health to today's new challenges, including emerging diseases and cancer, the foundation is one of the few organizations that supports health studies to improve the quality of life for dogs. These studies have led to major breakthroughs in canine genetics, diagnostics, preventions and treatments.

In the last year, Morris Animal Foundation helped researchers around the world:



## Identify genetic mutations for diseases in high-risk breeds

Identifying causal genetic mutations is critical toward developing screening tests for serious health conditions in high-risk breeds. In one study, our researchers found a genetic mutation strongly associated with calcium oxalate bladder stone formation in miniature schnauzers. In another, our researchers identified a genetic mutation involved in subvalvular aortic stenosis in Newfoundland dogs. This led to the development of a breed-specific screening test for this serious heart defect.

## explore human health advances to help dogs with cancer

Passive immunotherapy, which uses specially designed antibodies to kill cancer cells, has revolutionized lymphoma treatment in humans. Employing recently available tools, our researchers evaluated an antibody immunotherapy combination that proved safe and effective in treating diffuse large B-cell lymphoma in canine cultured cells. This research has laid the groundwork for clinical trials of a promising, new therapy for dogs with lymphoma.



## develop new diagnostic and disease monitoring strategies

Chronic kidney disease affects up to 15 percent of older dogs and can be difficult to diagnose in its early stages. Our researchers identified urinary biomarkers that help detect different types of renal damage in dogs. These include two biomarkers associated with a specific type of canine kidney disease called immune complex-mediated glomerulonephritis, a manageable disease if detected early.

# OUR INVESTMENT IN DOGS

Morris Animal Foundation supports canine health experts around the world. In 2016, our funding is helping researchers:

- optimize dosing effectiveness of tramadol, a common **pain medication**
- find new ways to control canine **atopic dermatitis**
- improve seizure monitoring in dogs with **epilepsy**
- explore drug treatments for **bladder cancer**
- understand the biological mechanisms that trigger canine **osteosarcoma** metastasis
- establish whether intensive, postoperative rehabilitation improves outcomes for dogs recovering from acute **spinal cord injury**
- assess the value of a genetic prognostic tool to assist with treatment decisions for dogs with **diffuse large B-cell lymphoma**
- investigate the impact of **canine circovirus** – a newly discovered virus – and develop prevention and control strategies
- measure chemotherapy resistance to help tailor treatments for dogs with **T-cell lymphoma**
- build a better genome assembly to help study complex **canine diseases**
- find new treatment targets for canine **mammary gland tumors**
- assess how well specific adjunct chemotherapies work for dogs recovering from **bone cancer** surgery
- identify risk factors for **cancer** and other major health problems in dogs through the Golden Retriever Lifetime Study



## ABOUT MORRIS ANIMAL FOUNDATION:

Morris Animal Foundation is a nonprofit organization that invests in science to advance animal health. The foundation is a global leader in funding scientific studies for companion animals, horses and wildlife. Learn more at [morrisanimalfoundation.org](http://morrisanimalfoundation.org)

Contact us at: 720 S. Colorado Blvd., Suite 174A, Denver, CO 80246, or by calling 800.243.2345.

BY THE NUMBERS

# FUNDING

SINCE 1950:

**\$39.6** million invested

**918** canine studies funded

**82** institutions supported

# HEALTH

70 CURRENTLY FUNDED STUDIES IN:

- 1** behavior
- 35** cancer
- 2** cardiovascular
- 2** dermatology
- 3** endocrine/metabolic
- 1** gastroenterology
- 2** general health
- 3** genetics
- 2** hematology
- 1** immunology
- 3** infectious disease
- 3** musculoskeletal
- 4** neurology
- 1** nutrition
- 2** pharmacology
- 5** urinary

