



# Golden Retriever Lifetime Study Report 2019

Launched in 2012, the Morris Animal Foundation Golden Retriever Lifetime Study is one of the largest prospective studies of its kind in veterinary medicine. The Study gathers annual samples and data on a cohort of more than **3,000 golden retrievers**. Our goal is to identify the nutritional, environmental, lifestyle and genetic risk factors for cancer and other diseases in dogs.

## NEW NESTED STUDIES:

Nested studies are smaller studies conducted using the data and/or samples from the Golden Retriever Lifetime Study.

### HEART DISEASE

*University of California, Davis*

Look for links between certain dog food ingredients/formulations and the development of taurine deficiency and associated heart disease in golden retrievers.

### OBESITY

*University of Cambridge*

Look for inheritable genetic mutations linked to higher obesity risk to help owners and veterinarians to take proactive measures to help their pets.

### TRAINING

*Veterinary Specialty*

*Hospital, San Diego*

Residents will work with Study epidemiologist to learn about proper study design and statistical analysis with the goal of publication of results.

## NEW PUBLICATIONS

Researchers are starting to look at the first few years of data as it relates to dog health concerns.

### Age at Gonadectomy and Risk of Overweight/Obesity and Orthopedic Injury in a Cohort of Golden Retrievers

*(PLOS One, July 2019)*

New risk data for veterinarians and owners to consider about the timing of spaying and neutering large-breed dogs.

### Inbreeding Depression Causes Reduced Fecundity in Golden Retrievers

*(Mammalian Genome, June 2019)*

Higher degrees of inbreeding associated with reduced litter sizes.

## NEW PARTNERSHIP

Morris Animal Foundation is partnering with the V Foundation to fund genetic sequencing of DNA from cohort dogs with cancer. This new data will add to the intrinsic research value of the project for dogs as well as boost translational research in other species, including people.

# STUDY OUTCOMES

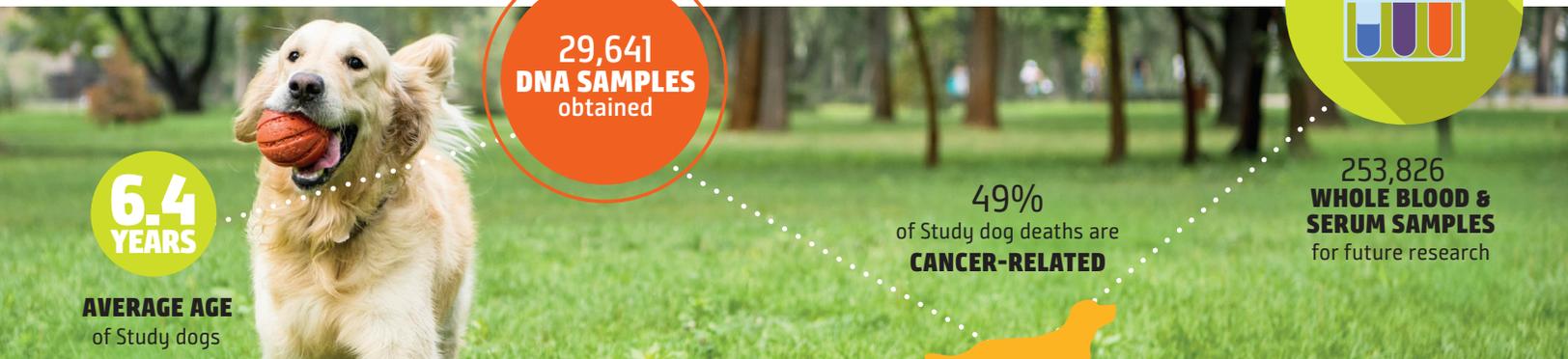
As of June 30, 2019

## FUNDING

SINCE 2012:  
**\$32 MILLION** projected cost  
**\$22 MILLION** raised  
**\$10 MILLION** additional funds needed

## DID YOU KNOW?

In addition to the four top canine cancer statistics captured by the Study, other common cancers reported in Study dogs include histiosarcomas and low-grade mast cell tumors.



**6.4**  
YEARS

**AVERAGE AGE**  
of Study dogs

**29,641**  
DNA SAMPLES  
obtained

**49%**  
of Study dog deaths are  
**CANCER-RELATED**



**253,826**  
**WHOLE BLOOD & SERUM SAMPLES**  
for future research



## PRIMARY CANCER DIAGNOSES

**39** LYMPHOMA  
(26 deaths)

**4** HIGH-GRADE  
MAST CELL TUMORS  
(1 death)

**22** HEMANGIOSARCOMA  
(17 deaths)

**1** OSTEOSARCOMA  
(1 death)

**59** OTHER CANCERS  
(24 deaths)

**142** TOTAL DEATHS FROM  
CANCER & OTHER CAUSES

## THANK YOU TO OUR DEDICATED OWNERS & VETERINARIANS

The Study would not be possible without the passionate dedication of our hero dog owners and their veterinarians and, of course, our amazing 3,000+ golden retrievers.

## THANK YOU TO OUR PARTNERS

The Golden Retriever Lifetime Study is the first Morris Animal Foundation study designed, funded and run by the Foundation. Thank you to our partners who help make the Study possible.

### FOUNDING PARTNER

The Mark & Bette Morris  
Family Foundation

### PLATINUM PARTNERS



### GOLD SPONSORS

Golden Retriever Foundation    Zoetis  
Hadley & Marion Stuart Foundation

### GOLDEN CHAMPIONS

Mars Veterinary

## ABOUT MORRIS ANIMAL FOUNDATION

Morris Animal Foundation's mission is to bridge science and resources to advance the health of animals. Founded by a veterinarian in 1948, we fund and conduct critical health studies for the benefit of all animals.

Learn more at [morriscaninialfoundation.org](http://morriscaninialfoundation.org).

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