

GOLDEN RETRIEVER LIFETIME STUDY REPORT

2020

GOLDEN RETRIEVER LIFETIME STUDY

Launched in 2012, the Golden Retriever Lifetime Study enrolled **3,000+ golden retrievers**, ages 2 months to 2 years old. The Study collects health, environmental, nutritional and behavior data over the course of each dog's life. This comprehensive data will help researchers identify nutritional, genetic and environmental risk factors for cancer and other important diseases in dogs.

WHAT'S NEW

Golden Oldies

Morris Animal Foundation is enrolling healthy golden retrievers over 12 years of age as a comparison control group for the current cohort. The Foundation-led team will compare the genetics of Study dogs that died from cancer with older golden retrievers that have never been diagnosed with cancer. This project will help speed up the discovery process for potential cancer risk factors in golden retrievers and inform canine cancer studies.

Genotyping

In 2019, Morris Animal Foundation partnered with the V Foundation to raise \$2 million for the genomic sequencing (detailed genetic makeup) of dogs in the Study. Morris Animal Foundation has explored available genotyping technologies and is finalizing a plan that will maximize the collected genetic material to achieve Study goals and propel future cancer research.

Nested Studies

Nested studies are smaller studies using data and/or samples from the Golden Retriever Lifetime Study. Using Study blood samples, Canadian researchers at the University of Guelph are working toward developing a blood test for early diagnosis of lymphoma in dogs.

Publication

As part of the Study's recruitment process, the Foundation compiled a large database of golden retriever owners whose dogs either did not qualify to be in the Study or did not make the enrollment cut-off date. Colorado State University researchers used this tool to recruit golden retrievers to study T-zone lymphoma in dogs. Dr. Julia Labadie, an epidemiologist and lead author of the publication, is the newest member of our Study team.

Genome-Wide Association Analysis of Canine T-Zone Lymphoma Identifies Link to Hypothyroidism and a Shared Association with Mast-Cell Tumors (*BMC Genomics*, July 2020)



STUDY OUTCOMES

As of July 2020

FUNDING

SINCE 2012:

\$32 MILLION projected cost

\$23 MILLION raised

\$9 MILLION additional funds needed

DID YOU KNOW?

In addition to the Study's four end-point cancers – lymphoma, hemangiosarcoma, high-grade mast cell tumors and osteosarcoma – the Study team is closely following all cancers diagnosed in Study dogs.



**7.6
YEARS**

AVERAGE AGE
of Study dogs

30,000+
DNA SAMPLES
obtained

60%
of Study dog deaths are
CANCER-RELATED



326,000+
**WHOLE BLOOD &
SERUM SAMPLES**
for future research

PRIMARY CANCER DIAGNOSES

59 HEMANGIOSARCOMA
(51 deaths)

57 LYMPHOMA
(44 deaths)

**7 HIGH-GRADE
MAST CELL TUMORS**
(3 deaths)

7 OSTEOSARCOMA
(2 deaths)

**234 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.

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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 morriscaninalfoundation.org.

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