

Golden retrievers key to lifetime dog cancer study

January 22 2013, by Sue Manning



In this December 17, 2012 photo provided by Colorado State University, Dr. Rodney L. Page, Professor of Oncology and Director of the CSU Flint Animal Cancer Center, sits on a sofa with a golden retriever, Winston, in the lobby of the James L. Voss Veterinary Teaching Hospital at Colorado State University, in Fort Collins, Colo. Winston is a pet of a co-worker, and not part of the cancer study. The Golden Retriever Lifetime Study will be the largest and longest study of dogs ever conducted, said Page, the study's principal investigator. (AP Photo/Colorado State University, Joe. A. Mendoza)

(AP)—When Jay Mesinger heard about a study seeking golden retrievers to help fight canine cancer, he immediately signed up 2-year-old Louie.

He and his wife know firsthand the toll of canine cancer: Louie is their fourth golden retriever. The first three died of cancer.

"They all had long lives but were taken by complications from one kind of cancer or another," said the businessman from Boulder, Colorado.

For Louie and 2,999 other purebred goldens, it will be the study of a lifetime. Their lives—usually a 10-to-14-year span—will be tracked for genetic, nutritional and environmental risks to help scientists and veterinarians find ways to prevent canine cancer, widely considered the No. 1 cause of death in older [dogs](#), said Dr. Rodney Page.

The Golden Retriever Lifetime Study will be the largest and longest dog study ever conducted, said Page, the study's principal investigator, a professor of veterinary oncology and the director of the Flint Animal Cancer Center at Colorado State University.

The study will focus on three cancers that can be fatal to the dogs—[bone cancer](#), lymphoma (cancer of the lymph nodes) and a cancer in the blood vessels called hemangiosarcoma. Page said he also expects the data to yield information about other dog diseases, like arthritis, [hip dysplasia](#), hormonal and [skin disorders](#) and epilepsy.

The Morris Animal Foundation, a 64-year-old group based in Denver, is providing much of the \$25 million needed for the study. The rest will be funded through online public donations that allow people to sponsor one of the 3,000 canine volunteers.

The study is recruiting purebred golden retrievers under the age of 2 whose pedigree can be traced back at least three generations. The breed

was chosen because "they are very common. They are the fourth- or fifth-most common dog recognized by the American Kennel Club. They are wonderful companions for people and found in every walk of human endeavor," Page said.



This 2012 photo provided by Colorado State University, shows a golden retriever, Louie Mesinger, in his backyard during the summer in Boulder, Colo. The Golden Retriever Lifetime Study will be the largest and longest study of dogs ever conducted. For Louie and 2,999 other purebred golden retrievers who are chosen over the next two years, their lives, usually a 10-to-14-year life span, will be tracked for genetic, nutritional and environmental risks to help scientists and veterinarians find ways to prevent canine cancer. (AP Photo/Colorado State University, Josh Mesinger)

Researchers were seeking young dogs because "knowing the history of their lives provides huge advantages," Page said. Those involved in the study compared the work to the Framingham Heart Study, which has tracked a group of humans and their descendants from Framingham,

Massachusetts, since 1948.

Dr. Nancy Bureau, Mesinger's veterinarian at the Alpine Animal Hospital in Boulder, said that given the condensed lifespan of a dog, it might not take a decade to see results from the study.

"Before this group of volunteer dogs has left this world, hopefully we will have data to help even them," she said.

A pilot study of 50 dogs started in August 2012, and Page said preliminary results from that first group should be ready soon and reportable results could be possible in a year.

Work on the study started about four years ago. After funding was approved, scientific and research teams were formed, the database was set up, a bio-lab found to store the samples and a questionnaire was written.

The recruitment of volunteer dogs was expected to be done in two years, with most of it spent on verifying eligibility and participation. Page said it takes about four weeks to verify pedigree and health, and make sure a dog's owner and veterinarian will participate. So far, 200 dogs have accepted the invitation, and 600 others are on a waiting list.

Bureau, who also has a golden retriever client on the waiting list, said it's a privilege to be part of a groundbreaking study. Aside from researchers, participating veterinarians probably have the most work—they have to submit samples of blood, urine and hair during annual exams and report whenever they treat a volunteer dog for any reason.

Study leaders will not intervene or recommend any treatment, Page said. "We will work with the vets working with the pets. We will catalog all the things that happen, the medical history, the diet, environment and

exposures."

The vets hope the study eventually will benefit humans. Researchers will pay particular attention to early onset obesity in dogs to see how it is related to diabetes, Page said.

Dog-years are a benefit to researching ailments found in both dogs and humans, because studying a dog for 10 years is akin to studying a human for 60 or 70 years, said Dr. Wayne Jensen, the Morris Animal Foundation's chief scientific officer and executive director.

"There are many examples where risk factors in dogs have also been found in people," said Jensen.

The study will also try to measure factors in a dog's life, such as how fun and an owner's love affect the animal's health and longevity. That will be attempted through questions about the number of children or other pets in the owner's family, the amount of time spent together—and the dog's sleeping spot.

Mesinger knows the answer to that one off the top of his head: "In bed, with my wife and I."

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