Love of Goldens uncovers research gold

BY HEIDI JETER

When Josh Stern’s parents refused to get him a dog, he got himself a job at a kennel for Golden Retrievers. Thus began a lifelong love affair with its weight in gold.

“That job was why I became a veterinarian,” says Dr. Stern, who not only fell in love with the breed but has since made career out of helping them.

Today, Dr. Stern is a faculty cardiologist at the University of California—Davis, where he runs a fully equipped genetics lab. His primary area of research interest? Inherited heart disease in Goldens.

Dr. Stern’s career path became clear in veterinary school at the Ohio State University, where he met Dr. Kate Meurs, a leading veterinary cardiologist and former chair of Morris Animal Foundation’s Scientific Advisory Board.

Together they put together a grant proposal that allowed Dr. Stern to obtain a coveted Zoetis—Morris Animal Foundation Veterinary Fellowship for Advanced Study. The four-year grant enabled him to earn his PhD and become board certified in cardiology through his work with Dr. Meurs at Washington State and North Carolina State universities.

His fellowship research led to important discoveries regarding the genetics of familial subvalvular aortic stenosis (SAS), an inherited heart disease that affects Golden Retrievers and other large breed dogs.

“SAS is a terribly frustrating condition,” Dr. Stern says. “The really mild form has no clinical signs and often goes undiagnosed, while the severe form can lead to sudden death when the dog is less than 2 years old.”

Dr. Stern and his research team narrowed down the region in the dog genome where they believe the disease gene lies in Golden Retrievers and determined that Goldens and Rottweilers may share a mutation. They also discovered the mutation associated with SAS in Newfoundland.

“We hope to offer genetic tests to breeders so they can make good breeding decisions and lower the disease prevalence,” Dr. Stern says. “What’s even more exciting is that when we find the gene mutation that causes SAS, we might be able to develop novel therapeutic options.”

Dr. Stern’s love of Golden Retrievers has put him on the other side of research as well. Shortly after losing his beloved Florin at age 7 to hemangiosarcoma, Dr. Stern enrolled his puppy, Lira, in the Foundation’s Golden Retriever Lifetime Study.

“I hope Lira can be one piece of the puzzle in helping us understand the biology and genetics of cancer,” he says. “Just like in my research, I hope the findings eventually get back to novel therapeutics.”

His involvement has made Dr. Stern realize just how committed pet owners must be when they agree to participate in a research study. He also knows the effort is worth it.

“Longitudinal studies are so few and far between,” he says. “The knowledge that can come out of this study will be unmatched.”

Dr. Stern with his puppy, Lira, who is enrolled in the Golden Retriever Lifetime Study.

Can your dog help, too?
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