Subvalvular Aortic Stenosis

Understanding the Genetics in Rottweilers

What is the purpose?

Subvalvular aortic stenosis (SAS) is the most common congenital (present from birth) heart defect in dogs. In this disease, fibrous tissue develops below the aortic valve, causing a narrowed tract out of the left side of the heart. Moderately and severely affected dogs are at risk for developing severe cardiac complications and have an average lifespan of only 19 months. Surgical treatment of dogs affected with SAS does not significantly increase patient life expectancy.

Rottweilers are overrepresented in cases of SAS. This study aims to identify the genetic variant(s), or mutation(s), associated with SAS in Rottweilers.

What are you looking for?

We are recruiting Rottweilers diagnosed with SAS and parents and/or littermates of Rottweilers diagnosed with SAS.

What would I need to do?

We request that owners or veterinarians of participating dogs submit:

- 2-3 mL of whole blood in a purple top EDTA tube
- A copy of the cardiovascular examination and the echocardiographic report
- A copy of the dog's 3-generation pedigree (if available)
- A completed enrollment form (available upon request)

What will happen in the trial?

Procedures will include:

- A physical examination, with particular attention paid to the cardovasculat system
- An echocardiogram (heart ultrasound), performed by a cardiologist
- Collection of 2-3 mL of whole blood

Why should my dog participate?

Results from this study can be utilized to:

- Produce a genetic test for SAS in Rottweilers, which would guide breeding practices and ultimately reduce disease prevalence
- Identify new drug targets, informing the developments of medical therapeutics
- Guide identification of genetic variant(s) in other overrepresented dog breeds and in human children, who also develop SAS



Trial Contact: Dr. Amanda Crofton aecrofton@ucdavis.edu Dr. Joshua Stern, Principal Investigator

INTERESTED? Contact us!