



Heart Disease Research Program Area

03731-MOU: Genetic and Proteomic Drivers of Severe Myxomatous Mitral Valve Degeneration in Whippets

Principal Investigator: Joshua Stern, DVM, PhD; North Carolina State University College of Veterinary Medicine

Myxomatous mitral valve disease is the most common heart disease in dogs and can lead to heart failure and shortened life expectancy. While many dogs develop this condition later in life, approximately 10-20% of whippets show severe disease at a much younger age, suggesting an inherited risk. This research aims to understand why this happens by studying both genetic differences and associated protein changes in affected dogs. By identifying markers that predict early and severe disease, this project could improve early screening, guide healthier breeding decisions, and help veterinarians recognize high-risk dogs sooner. Ultimately, this work has the potential to improve quality of life and long-term heart health for Whippets and other breeds affected by similar heart disease.