



UW Veterinary Care
UNIVERSITY OF WISCONSIN-MADISON

LOOKING FOR Entlebucher Mountain Dogs

Genetic Basis of Glaucoma in Entlebucher Mountain Dogs

The Study

Glaucoma is a very painful and rapidly blinding disease that leads to irreversible loss of sight in thousands of dogs in the US and worldwide every year. Medical and surgical treatments that target the damaging high pressure in the eyes of affected dogs are not able to cure the disease, only control it. In many dogs with glaucoma, surgical removal of both eyes is needed to control pain. Recent research reveals that the Entlebucher Mountain Dog is one of the breeds which is at higher risk of being affected by this disease in both North America and Europe. With improvements in canine DNA sequencing tools, it is now possible to carry out very detailed DNA analysis of individual dogs. These tools have identified mutated genes responsible for several dog diseases. This study will harness the power of these exciting new tools and technologies to analyze DNA from Entlebucher Mountain Dogs.

Who Qualifies

Any purebred Entlebucher Mountain Dog with a history of glaucoma qualifies for the study. In addition, Entlebucher Mountain Dogs over 10 years of age without glaucoma are being recruited as control patients for DNA comparison.

What Happens

After an eye examination, including a test called gonioscopy and possibly an ultrasound exam of the eye, a blood sample is obtained or the inside of the patient's cheek is swabbed to obtain a DNA sample for gene sequencing.

Why Participate

The study goal is to identify the mutation (or mutations) in DNA that cause glaucoma and, in turn, develop a genetic test for the disease in this breed and possibly other affected breeds. Due to the current lack of effective treatments for glaucoma, a DNA test would provide an invaluable tool in the effort to fight this disease, as dog breeders would be able to avoid affected dogs and carriers of the disease in their breeding strategies and could ultimately eliminate this exceedingly painful, disabling disease from the dog population.

More Information

If you are interested in participating in this study or want more information, please contact the UW Veterinary Care Ophthalmology Service at 608-263-7600 or ophtho@vetmed.wisc.edu.