Collie Health Foundation – Participate in Research

Tests - * Required for AKC Breeder of Merit

Test Name	Description	Testing Organization	Regular Price	Method and Test Ordering Instructions	Link to Testing Organization Website
Degen-erative Myelo-pathy	Degenerative myelopathy is a progressive disease of the spinal cord in older dogs; loss of coordination (ataxia) in the hind limbs, weakness, dragging feet, and as it progresses loss of urinary and fecal continence. This is not a painful disease.	VetGen	$65.00 per test	Oral cheek swab Instructions will be mailed with test swabs	VetGen DNA testing
Dermat omyosi tis	Dermatomyositis is an inflammatory disease affecting skin as well as muscle, in extreme cases.	Clemson University, Dr. Leigh Clarke	Regular Price: $180 per dog CHF offers a rebate of $120 per test to CHF members. This rebate is in effect until 12/31/16.	oral cheek swab Email Jacquelyn for swabs at: mailto:jacquee@g.clemson.edu	Pending
CEA *	A recessively inherited eye disorder that causes abnormal development of the choroid - an important layer of tissue under the retina of the eye.	Optigen	$180 or $144 if done at same time as PRA test from the same blood sample (see website for litter price discounts and other discounts). CHF offers a rebate of $50 per test to CHF members (submit Optigen receipt/report to the CHF treasurer) This rebate is in effect until 12/31/16.	Blood sample Optigen Submit Optigen Instructions	Optigen CEA Test
PRA *	An abnormal development (dysplasia) of the rods and cones (the light sensitive cells in the eye) leads to an early onset of night blindness that is typically apparent by the time pups are 6 weeks of age. In most cases, the *rcd2*-Affected dog is completely blind by the time it is 1 year old.	Optigen	$180 or $144 if done at the same time as CEA test from the same blood sample. (See website for litter price discounts and other discounts) Through through 12/31/2016, Optigen has set up a 25% discount for PRA testing for collies, bringing the cost down to $135. To receive the Optigen discount, use the special code "CHF15REF" when you apply for the test. Optigen set up their discount so that it pops in at the end of your order. CHF offers an additional rebate of $50/test *to CHF members* (submit Optigen receipt/report to the CHF Treasurer).	Blood sample/cheek swab/semen sample Optigen Submit Optigen Instructions Optigen DOES NOT supply DNA swabs, but describes the type you need to get on their website. They don't send a kit or swabs, just the receipt for the order.	Optigen PRA Test
CRD	Canine renal dysplasia, also known as juvenile renal disease, is a chronic disease that affects young dogs, causing one or both kidneys in a dog to fail.	DOGenes	$135/kit	Cheek swab DOGenes Test Order	DOGenes
MDR-1 *	Sensitivity to certain drugs, including ivermectin, that can cause severe reactions or death in some collies.	Washington State University/ Vetmed	1-4 tests in a single shipment - $70/test 5 or more tests in a single shipment - $60/test CHF offers a rebate of $20/test to CHF members (submit Optigen receipt/report to the CHF Treasurer) This rebate in effect until 12/31/16.	Blood sample or Cheek swab/ Vet Gen Tests	Vet Med Ivermectin
Gray Collie (Canine Cyclic Neutrop enia)	A fatal condition characterized by cycles of low white blood cell (neutrophil) counts leading to overwhelming infections.	Healthgene	$85/test The CHF offers a rebate of $50 to all CHF members testing either through Healthgene. Offer good until 12/31/16.	Cheek swab Vet Gen Tests	Vet Gen Cyclic Neutropenia
Gray Collie (Canine Cyclic Neutrop enia)		Vetgen	Single test - $65 2-7 tests - $55.25 8+ tests - $45.50 The CHF offers a rebate of $50 to all CHF members testing either through Vetgen. Offer good until 12/31/16.		Vet Gen vWD2
Canine Coat and Nose Color	DNA testing for the **"a"** alleles in Collies that are sable or tricolor allows breeders to better predict the colors of pups from particular matings.	Healthgene	$55/test	Cheek swab Rough: Health Gene Color Test Smooth: Health Gene Color Test Smooth	Health Gene DNA Testing
Canine Coat and Length	Detects the presence or absence of the recessive allele that results in long coats when present in two copies, and as such allows dogs with short coats that carry a hidden "long coat" allele to be detected.	Vetgen	$50/test	Cheek swab Vet Gen Tests	Vet Gen Tests

Studies:

Study	Description of Study Topic	Method and Test Study Information	Contact
Dermatomyositis **(CLOSED, but see NOTE)**	Dr Leanne Clark's genetics lab at Clemson University is looking for the gene(s) responsible for DM in collies, in addition to mapping the entire collie genome.	Biopsy. Dogs already diagnosed, even if currently symptom free, and dogs suspected of being affected are also needed. We do not need to have a pedigree, so rescues are welcome as well. Contact Leigh Ann for information. CHF will cover the cost of collection and shipping. **NOTE:** Although this study is technically closed, Dr. Clark said she will still take samples for future research. She continues her research on an autoimmune genetic study: Diversity of the dog leukocyte antigen class two loci (comparing a set of genes believed to contribute to autoimmune disease; if no diversity is present in these genes, the dogs are predisposed to autoimmune disease).	Leigh Anne Clark, PhD (864) 656-4696 (864) 656-4696 100 Jordan Hall Clemson University Clemson, SC 29634-0318
Efficacy of GnRH vaccination for the treatment of urinary incontinence in dogs **CLOSED; results pending publication**	Female dog urinary incontinence	Collies are given preferential treatment for this female urinary incontinence study. Study being conducted by Drs Michelle Kutzler and Timothy Hazzard.	Timothy M. Hazzard, DVM, PhD Assistant Professor Sr. Research Department of Animal Sciences 315 Withycombe Hall Corvallis, Oregon 97331 (541) 737-1920 (phone) (541) 737-4174 (fax)
Identification of vWB causal mutation and development of a direct DNA test	CHF is currently funding a grant looking for participants - collies that bleed excessively or unexpectedly.	Contact VetGen for details	Contact Ann at VetGen: 3728 Plaza Drive, Suite 1 Ann Arbor, Michigan, 48108 USA Phone: (734) 669-8440, (734) 669-8440, (800) 483-8436, (800) 483-8436 (US & Canada) Fax: (734) 669-8441 VetGen Email: vetgen@vetgen.com Vet Gen vWD2
Candidate Gene Research of GDV ("bloat") and Associated Stress	Gastric dilatation - volvulus (GDV) is a life threatening condition and is found primarily in large to giant breeds. Most people know this condition as bloat. Although the exact cause of bloat is not known, it appears that this disorder may have multiple causes.□□The genetics of bloat is probably complicated. An animal does not inherit bloat, but rather the predisposition to develop bloat.□□Stress has been shown to be can be a risk factor. Recent kenneling or long car rides for example may cause many dogs to bloat. This research will focus on DNA sequencing genes known to be involved in the stress response.	From DOGenes website: DNA samples from Samoyeds, Collies and their relatives (especially parents, if available) are *desperately* needed for this research. Because the inheritance of this disorder appears to be complex, we will need as many samples as possible in order to show a statistical correlation of a mutation with the disease. The priority at the moment is to collect samples from these lines.□□Participants will be asked to collect DNA cheek swab samples, and sign a transfer of ownership document for the DNA submitted.□□Please do you part and get involved in this very important project! If you are willing to participate contact us at info@dogenes.com to receive your materials for participation. Participation is free.	Mary Whitley PhD info@dogenes.com DOGenes
The Use of Skin Punch Biopsy to Diagnose Polyneuropathy	Polyneuropathy is a condition that is used to describe a collection of nerve disorders. It usually involves motor nerve dysfunction (lower motor neuron disease). Symptoms may include decreased/absent reflexes and muscle tone, weakness, or paralysis, and often occurs in the rear legs. Onset may be slow and chronic, or may occur suddenly. In people there is a simple, low cost, painless way to discover disease of the nerves of the legs and arms. The purpose of this study is to determine if this same simple technology may be applied to dogs. This study will allow the veterinary general practitioner the ability to diagnose neuropathy with only the need for a 6 mm biopsy punch, a terrific savings of time and money to the client and sparing the canine patient anxiety and pain.	The veterinary and breeder community will be able to utilize this information as a possible early indicator of polyneuropathy, diabetes, a marker for adequate control of diabetes, an indicator of potential neuropathic pain, inflammatory bowel disease, toxin exposure, and as a research tool to aid the investigator in evaluating psycho physiologic thresholds for heat, cold and pain. Additional information obtained may also be used as an indicator of chronic immune mediated inflammatory disease like lupus or dermatomyositis. This study is fully funded by the Collie Health Foundation.	Thomas Schubert DVM Clinical Professor and Chief of Neurology Service University of Florida College of Veterinary Medicine PO Box 100126 Gainesville Florida 32610-0126 352-392-2235 schubertt@ufl.edu
Abnormalities in the Stomach's Ability to Contract Predisposes Large-Breed Dogs to Bloat	The goals of Dr. Nelson's study are to determine the relationship of abnormal stomach contraction with GDV and to define the biochemical and genetic alterations that may be associated with these stomach abnormalities. In the long term, they hope to develop a test to identify dogs at high risk for GDV that would allow selective breeding to eliminate the condition and to determine which dogs will benefit most from prophylactic gastropexy or other preventive therapies.	Contact Dr. Nelson for information.	Dr. Laura L. Nelson, DVM, MS, Diplomate ACVS Michigan State University Small Animal Clinical Sciences michae19@cvm.msu.edu 517-410-6847
Evaluating the Complex Genetic Basis of Bloat	Dr. Claire Sharp and her team at Tufts University are looking to collect blood (in EDTA anticoagulant) for the extraction of DNA from dogs that have had GDV or are from at risk breeds that have not had GDV. The DNA samples will be used for a genome wide association study in at risk breeds in order to identify single nucleotide polymorphisms that are associated with increased risk for GDV. This is part of a larger study evaluating the pathophysiology of GDV from a systems biology perspective	Blood sample; contact Dr. Sharp for details.	Dr. Claire Sharp BVMS Tufts University claire.sharp@tufts.edu 508-839-7934

OTHER:
(Some of the following are not directly associated with the Collie Health Foundation, but may be of interest to collie owners and breeders.)

Study/Other	Description	Method and Other Information	Contact
DNA Banking	A database of information and DNA banking in which you can participate. This database has been set up specifically for the Collie Health Foundation.	See the following link for detailed instructions for participation. CHF DNA Bank	Contact DOGenes: DOGenes