

Epilepsy Study in Missouri

Those of you who have or know of seizing dogs should look into the research being done by the University of Missouri. Their goal is to find the genes responsible for epilepsy so breeders can breed appropriately to decrease the incidence of epilepsy in dogs. DNA samples of dogs that have had seizures and their immediate relatives including siblings, parents and grandparents that are both normal and affected are needed.

This research is supported by the AKC health foundation and is in conjunction with the University of MN and OH State University. For those of you that have internet access look at: <http://www.canine-epilepsy.net/cerc.html> for information on sample collection, forms, and submission.

Canine Epilepsy Research

Canine epilepsy is one of the most emotionally devastating problems facing dog owners and breeders today. A consortium of researchers from the University of Missouri, University of Minnesota, Ohio State University, and the Animal Trust (England) are currently doing DNA research to try to locate the mutation(s) responsible for causing epilepsy in dogs. The genes controlling seizure problems in dogs are not well understood, but this project is attempting to find the marker(s) or mutation(s) responsible. When these can be identified, a blood test will tell if an individual dog is a carrier, clear, or likely to become an affected (even before symptoms begin). Using this information, breeders can choose breeding partners who will not produce additional affected puppies.

Researchers working on this project need information from affected dogs and their families. Specifically, they need a 3- to 5-generation pedigree of the litter where an affected dog (or dogs) appeared and blood samples from the affected dog(s), full siblings, parents, and when possible, the grandparents. If an affected dog has been used for breeding, the offspring and mates should also be sampled. Distant relatives are potentially useful, but the most important samples are from the affected dogs and immediate relatives. Family groups are important so that the genotype of the affected dogs can be compared to that of close relatives who are not affected, and allow researchers to decipher how these genes are inherited from one generation to the next. An affected dog with little or no family available may also be of some use. Participation in the project is confidential - the names of dogs and owners who participate in the research will not be revealed. When markers are identified, individual owners will be able to request test results on their participating dogs. Results of research are published in such a way that the identity of individual dogs is anonymous.

There is a packet of information sheets and forms for submitting samples. You may make copies and distribute them to other interested breeders and owners. The packet can be downloaded at the Canine Epilepsy Network website, www.canine-epilepsy.net or, upon request, may be faxed or mailed to you. Grants from the AKC Canine Health Foundation allow participation in this research to be opened to ALL breeds of dogs. As of January 25, 2002, samples have been received from nearly 3400 dogs representing 71 different breeds. Samples are still needed from families where epilepsy has appeared, from any breed. In addition to helping your own breed, it is hoped that information discovered in one breed may help locate mutations in other breeds as

well. Please spread the word of this research to anyone who has an affected dog, or a relative of an affected dog, and to veterinarians or others who may come in contact with dogs and owners who should be included. There is no cost to participate, other than a vet fee for drawing a blood sample (many vets are doing this at a reduced cost to support the research) and overnight shipping charges to the lab (\$15-\$35 from most places in the country via FedEx, UPS, or US Mail). If you have any questions, or need additional information, please contact project coordinator Liz Hansen via one of the methods listed below. Thank you for your interest and participation!

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