

The Dalmatian Club of America DNA Research on Canine Epilepsy

**DCA Study Group for Seizure Disorders
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Dr. Gary S. Johnson, a molecular geneticist from the College of Veterinary Medicine at the University of Missouri-Columbia is currently doing DNA research to try to locate the mutation(s) responsible for causing epilepsy in dogs. For the past six years Dalmatians have been part of this project funded in part by DCAF and AKC/CHF. Sadly, research in Dals came to a standstill because there were not enough participants. DCAF recently injected new life into the project by providing a much-needed donation to the University of Missouri targeted at expanding the numbers of dalmatians in the study

The genes controlling seizure problems in dogs are not well understood. 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 affected puppies.

Researchers working on this project need information from affected dogs and their families. Specifically, what is needed is a 3- to 5-generation pedigree of the litter where an affected dog (or dogs) appeared, and blood samples from the affected dog(s), all full siblings, parents, and when possible, grandparents. More distant relatives are potentially useful, but **the most important samples are from the affected dogs, their siblings, and parents**. Family groups are important so that the genotype of the affected dogs can be compared to that of close relatives who are not affected. This allows 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.

CONFIDENTIALITY

Participation in the project is strictly confidential - the names of dogs and owners who participate in the research will not be revealed. No DCA member will be privy to who takes part in the research unless the participant requests it. When the research produces results, individual owners will be able to request the results of testing on their own dogs. Results of research are published in such a way that the identity of individual dogs is anonymous. We are very

excited that as the 21st century begins, breeders and owners of Dalmatians will help shed light on Canine Epilepsy. For too long it has been a subject one dared not speak about. For those of you hesitant to join us in this endeavor, please remember your privacy will be guaranteed. Think of the legacy we can leave to those who follow in our footsteps; if the marker gene(s) can be found, then the knowledge may carry over into the human research currently under way. We will be helping our beloved Dalmatians as well as the rest of the canine and human world.

SAMPLE COLLECTION OPTIONS/OPPORTUNITIES

There will be a blood draw for the Epilepsy project once again this year at DCA. If you are planning to attend with a dog/s who are relatives of a seizing Dalmatian or are bringing a Dalmatian who has been diagnosed with epilepsy you will be able to participate in the blood draw free of charge. It would be helpful if you would fill out the forms below and bring them with you.

For those of you unable to attend but want to participate in the project, ask your vet to draw blood and then send it to the University of Missouri along with the forms, which are downloadable below. Many Veterinarians when told that this is for a research project are willing to provide this service for free. If your dog is having a heartworm test or any other test that requires drawing blood ask for a little extra to be drawn.

FORMS AND INSTRUCTIONS

For those of you unable to print out the forms, they can be obtained from the University of Missouri by contacting the co-ordinate of Veterinary information Liz Hansen by phone 573-884-3712 or by email: LizHansen@Missourir.edu.

The following forms are available in Microsoft Word format. To download please click on the links below.

[Sending Information and Samples](#) - an outline of the information that is needed, and how to gather it.

[Sample Handling](#) - collection instructions to take with you to your veterinarian, and shipping instructions.

[Foreign Country Additional Instructions](#) - shipping and Customs clearance instructions for samples coming from outside the USA.

Individual Dog Information Form - form for information about each individual dog sampled.

Litter Information - information on the litter (breeders, please complete this form)

Litter List - for listing all members of the litter (breeders, please complete this form)

Additionally please fill out this online form for the **Canine Epilepsy Research Consortium Seizure Survey**

Please submit your comments, requests and suggestions to
DCA Questions

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