

Request for participation in the study: Canine Hip Dysplasia in Australian Shepherds

in the Institute for Animal Breeding and Genetics
University of Veterinary Medicine Hannover (Foundation)

The canine hip dysplasia (CHD) is a common hereditary developmental disease of the coxofemoral joints. CHD is characterized by subluxation of the femoral head and deformation of the acetabulum leading to a painful osteoarthritis. Population genetic analyses have proven the genetic background of canine hip dysplasia in different dog breeds.

The Institute for Animal Breeding and Genetics of the University of Veterinary Medicine Hannover (Foundation) in collaboration with the Breeding Association of German Shepherd Dogs (SV), Gesellschaft zur Förderung Kynologischer Forschung e.V. (GKF) and the German Kennel Club (VDH) has developed a new molecular genetic testing method for selection against canine hip dysplasia in German shepherd dogs.

This method is based on genetic markers and different effects of these markers which results in a genomic breeding value. The genetic markers are specific for the German shepherd dog, but the method of the genomic breeding values can be assigned to other breeds. The breeding values already can be evaluated for puppies. For genotyping of the markers a EDTA blood sample must be available. The genomic breeding value offers the planning of breeding pairs for selection against canine hip dysplasia. Furthermore the method allows a prediction of the chance that the dog develop canine hip dysplasia or not. The genomic breeding values are not based on the information about relatives, but on the genomic information of the dog. For the German shepherd dog this is a great step in the selection against canine hip dysplasia.

Now we want to test the genetic markers for the German shepherd dogs in other breeds and to develop the genomic breeding values for other dog breeds. For this purpose we need EDTA blood samples of dogs of other breeds. Furthermore we need the pedigree of these dogs and the result of the canine hip dysplasia examination. We need dogs all over the population of the Australian shepherd.

In the first step we need 12 dogs with CHD A and 12 dogs with CHD C to E. At first we do not include dogs with CHD B, so that the affected and the unaffected dogs clearly different. The dogs should reflect the whole population, so that we can identify meaningful genetic markers. This means that we need dogs from all breeding lines. In the next step we need more Australian Shepherds to verify the results.

The form to the EDTA blood samples you will find here:

www.tierzucht-hannover.de/hd.html

Furthermore we need a copy of the pedigree and the result of the canine hip dysplasia examination.

Please direct your inquiry to:

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