

HEALTH CLEARANCES; PARENT CLUB DATABASES and CHIC

by Margaret Pough, Delegate, Finger Lakes KC, Inc.

There is no breed of dog, and no individual dog, which is completely free from inherited genetic "defects". If we were using health to select our spouses from the ordinary population of people none of us would be selected! We wear glasses, have bad bites, and have cruciate surgery, take drugs for high blood pressure, and have diabetes. Compared to dogs, people are heterogeneous outcrosses. Dog breeds are moderately inbred isolates. They share many genes in common, including deleterious ones. There is a much higher risk of producing a specific defect in a particular breed, than in the general population of dogs. That does not mean that pure-breds are less healthy than mixed breeds. Outcrossed populations such as humans, and mongrels can all have defects.

Selecting dogs for breeding should always be based on breeding the best to the best. Breeding healthy animals of excellent temperament and sound conformation should be the goal of every breeder. Where we have tests available, we can use them to help us make informed decisions concerning the dogs we are going to breed. Different breed clubs have different recommendations on the health clearances that they suggest for breeding animals. Responsible breeders have the breed appropriate genotypic and phenotypic tests done on their breeding animals. Their puppies go to the veterinarian for a health exam, and responsible breeders follow up on any puppy or dog that has any suspicious exam or

test result. Although there are now more gene tests, and marker tests available, many of the health clearances are still phenotypic tests. They tell us only if that an individual dog is clear of the disease at the time of the test. This can be discouraging, particularly when the genetics appears to be multifactorial, (more than one gene contributing to the expression of a defect.) However, phenotypic tests can be useful. The OFA (Orthopedic Foundation For Animal) website at <http://www.offa.org/hovanart.pdf> has an article by Rhonda Hovan, "Collecting and utilizing phenotypic data to minimize disease: A breeder's practical guide" that is very helpful toward our understanding of this topic.

Parent Clubs have health committees that keep track of reported health defects. However, any database is only as good as the information placed into it; your help is necessary to insure the full value of the information. REPORT to your breed club (or enter into CHIC) any affected dogs. COMMUNICATE with the owners of the sire and dam if you have a dog that develops a problem. There is nothing worse than hearing second hand that your stud dog has produced a pup with a health problem. DO NOT BLAME! No one is at fault unless they continue to breed an animal that they know carries a defect, and they fail to notify owners of the dogs they are breeding to. REMEMBER: not every defect is caused by a simple recessive. RESPOND TO HEALTH SURVEYS. If the only people who

MEDICAL PROGRESS

respond to a survey are those who have dogs affected with a problem, the survey results will be skewed, and a rare defect may appear to be common in a breed.

The Delegate's Canine Health Committee had many discussions about the sort of database that could be established to help the individual breeder, the breed clubs, and those doing canine health research. This was the basis of CHIC - the Canine Health Information Center. The philosophy behind CHIC was to establish a Parent Club driven database that would be a central repository for all the health information on an individual dog. To learn more about CHIC go to the CHF website and follow the link, or go directly to <http://www.canine-healthinfo.org/>. The CHIC database pools information from multiple sources. Their Mission Statement is "To provide a source of health information for owners, breeders, and scientists, that will assist in breeding healthy dogs." . The tests have to be recognized, scientifically validated, and reproducible. Each dog must be permanently identified by microchip, tattoo, or DNA profile in order to be entered in CHIC. The database records both normal and affected animals. The aggregate information in the database is available to research scientists. The public availability of the individual information is up to the owner of the dog. Parent Clubs can recommend that their database is open or closed, but the ultimate decision is up to the

dog's, owner.

A CHIC number is issued when a dog has the results for all of the breed club defined tests entered into the database, and the owner of the dog has elected disclosure of all results. The number does not say the results are normal, just that the tests have been done and the information made publicly available. A CHIC report is issued when the CHIC number is assigned. The report is the list of the tests performed, their results, and the dog's age at the time of testing. As new results are recorded an updated CHIC report will be issued. [New tests added to breed specific requirements, or yearly CERF (Canine Eye Registration Foundation) results.]

CHIC is Parent Club driven. Each Parent Club can enroll in CHIC, and decide which tests should be done for their breed. Parent Club Health committees have to decide on the criteria for the tests. For instance, a club may require a cardiac exam on puppies, and require that any puppy with a murmur be examined by a cardiologist, and then require that adult dogs must be re-examined by a cardiologist. A different club may just require a cardiac exam as an adult. CHIC can take Parent Club databases, and transfer data from them; this is an advantage since many of these databases are maintained by one person, and the data may become unavailable in the future. CHIC can also set up an anecdotal database for those syndromes (such as epilepsy) that may occur in a breed, but for which there are no established tests. This can be very valuable for a breed. CHIC allows breed specific requirements. CHIC will provide the Parent Club with quarterly

reports of aggregate numbers and the specific dogs that have been issued CHIC numbers.

The number of breeds that are using CHIC is increasing. Each breed has to establish the criteria they require. In some cases there are only a few established tests that may apply to that breed; an anecdotal database may be important for those breeds.

Existing test results in the OFA and CERF databases are automatically entered into CHIC. To enter results from another source there is a one-time fee of \$25.00 per dog. There is no charge to enter results from an affected animal from a non-CERF/OFA source.

Breeding healthy animals of excellent temperament and sound conformation should be the goal of every breeder. Where we have tests available, we can use them to help us make informed decisions concerning the dogs we are going to breed.

Many people complain about the costs of tests, especially when they have not had any obvious health problems in their kennel. Tests do cost money. The development and validation of a test is a time consuming process when done correctly. Not every test is equal, and finding laboratories that perform scientifically validated assays is important. Knowing your testing laboratory is important. Interpretation of the test results is important as well. NO TEST IS PERFECT, and test may have false positive or false negative results that may occur because of sampling error, incorrect handling of the sample, operator error, test defects, or other reasons. A properly validated test,

MEDICAL PROGRESS

correctly performed at all stages along the way, can provide valuable information to you as a breeder. These principles apply to both genotypic and phenotypic tests.

SHOW WE CARE

Phenotypic tests for our dogs tell us if the tested dog is affected at the time of testing. They are not genetic tests and do not predict if a dog is a carrier of genetic disease. They help ensure that we are using healthy animals in our breeding programs. They ensure the buyers that we care about our breeding dogs. They do not guarantee that the pups we sell will not develop a genetic defect.

Genetic tests are being developed and are becoming available for many defects. Eventually tests will be readily available to use on genetic diseases found in many breeds of dogs. A gene test allows us to use a healthy carrier of superior conformation and temperament in our breeding programs. Such carriers can be bred to dogs tested clear, and affected dogs will not be produced. The puppies can be tested and clear dogs selected to carry on the breeding program.

Until then, show we care by using the tests available as our best defense against genetic defects.

Permission is granted to share this article, with acknowledgements to the author and to Perspectives.