

ON SUPPORTING BREED SPECIFIC RESEARCH

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Invited by Melanie S. Steele, Delegate, Greyhound Club of America

RESEARCH FOR DOGS

This article has been approved by the AKC's Canine Health Committee and its distribution is encouraged. Copies may be downloaded at www.akcchf.org/research/perspectives.cfm."

Very often, the AKC Canine Health Foundation receives research applications for projects that will be useful for a specific breed, family of breeds, or even a group of breeds that are seemingly unrelated. Most of the time, the Board approves these projects pending support from the clubs of breeds that will benefit from the research.

For projects that help a single breed or family of breeds, supporting the grant is an easy sell, as long as the health issue addressed is of concern for the breed. "Sure," the club members say, "We'd be happy to help out. We'd love to have this health problem solved."

The projects that benefit a group of breeds that may or may not be related (we classify these studied as "all breed") are only slightly different. These tend to deal more with a disease that affect a large number of breeds such as cancer, thyroid disorders, epilepsy, etc. whether it be through causative genetics or a therapeutic study. As such, any breed that suffers from the disease could potentially benefit from the results of the research. Fundraising for this kind of project takes longer, as there are usually a large number of breeds who would be interested and could support the grant, and therefore more clubs to follow up with. Generally, however, these projects end up fully funded as well.

But what about the breed-specific project that deals with a disease that actually affects many breeds? These are harder to fully fund, and not just because the research is expensive. The focus breed clubs are very good about supporting the research. However, with the advent of the canine genome sequence, even a breed-specific study


has the potential to be much more far-reaching than expected.

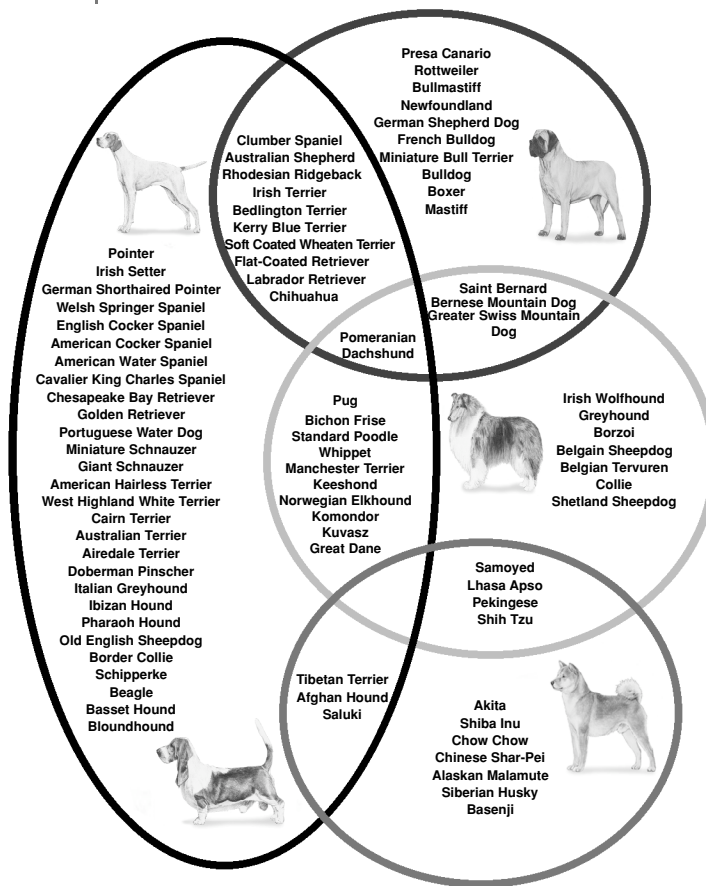
Dr. Kerstin Lindblad-Toh of the Broad Institute has said that, while she is more certain that related breeds share the same risk factors for disease, there is still a great deal of evidence of shar-

ters were identified (see chart), which predominantly contained breeds with similar geographic origin, morphology (form and structure), or role in human activities. This genetic classification of dog breeds ultimately will aid in all genetic studies. Dr. Parker has continued with this work, and expects to publish additional information later this year.

The phylogeny study provides the argument for clubs to continue (or begin) to sponsor research not specific to their breed. It is widely accepted that the Alaskan Malamute and the Siberian Husky are related, but who would have thought that the Chihuahua would genetically group with the Labrador Retriever or Rhodesian Ridgeback? And who would have predicted that the Doberman Pinscher, Old English Sheepdog, Westie and Bloodhound would have ended up in the same genetic group?

Dr. Parker's research grouped related breeds together; logically, therefore, research advances in one of these breeds should ultimately benefit the others, as they are genetically related. Research is changing; there are better tools and improved methods for determining causative mutations for disease. Perhaps it is time for breeds related to those under study to consider playing a greater role in supporting research that benefits them indirectly, but with profound potential.

(For an electronic copy of this article, please contact Erika Werne, Director of Canine Research & Education for the AKC Canine Health Foundation, 888.682.9696.) 



ing risk factors among breeds from different groups. Then again, how certain are we of the relatedness of breeds?

In 2004, scientists from Dr. Elaine Ostrander's lab led by Dr. Heidi Parker published "Genetic Structure of the Purebred Domestic Dog" in Science. This phylogeny (complete developmental history) project studied the genetic relationships in a diverse collection of domestic dog breeds. Four genetic clus-