

Leslie's excellent post regarding the RD Test

Leslie Baumann succinctly describes an "Above all, do no harm" approach for using the RD test to the apsobreeders list.

In my opinion, when we had more clears in the breeding population, the breed actually had a greater chance of bottlenecking on those dogs. If we all started out with plenty of clears, our human tendency would be to ditch the carriers, removing all sorts of worthwhile strains from the breed, and only breed the clears. Having a high rate of carriers makes a breeder's job harder but I would argue that the fact that more of us are forced to continue to breed our healthy carriers may end up protecting genetic diversity rather than limiting it. At best, we can remove the mutation from the breed. At worst, we may find we have to live with it in a certain percentage of the breed population. But at least we'll know which dogs are which!!!! As Kathy R. points out, we may be in something of the same boat as folks with breeds that carry for the merle gene or the hairless gene...they have to "zig/zag" to get the color/hair type they want without producing the defects that those genes, in their homozygous form, can produce. For the next two or three generations, we may have to do a similar "zig zag" to get what we want. But just because it's hard, seems to me is no reason to give up!!!!

I will say that we are all learning something about science...that is, the more we know, the more questions remain! And, of course, if this were an easy disease, we wouldn't need a genetic test! I believe we will find that testing full litters can provide some valuable insights for us, particularly if we all feel free to share our results without being "judged."

Why does our carrier rate seem so high right now? Is there, as Cathy suggests, another piece of the genetic puzzle that we need to know? As we've discussed before, seeking the component that modifies the penetrance of the mutation, is problematic. It might or might not even be genetic. However, without knowing where and when we have the mutation, we certainly can't begin to find the modifier. In addition, as Kathy R. asks, is there a trait that we've been selecting for (or selecting against) that is the reason we seem to have a higher than anticipated carrier rate in the breeding population overall? Frankly, if even a few of us feel able to share puppy quality evaluations vis a vis RD test results, it shouldn't take many litters to figure that one out! With luck, all we have to do is keep some typey clear puppies and move forward. At the very worst, we "zig zag" just as Chinese Crested people do between hairless and powderpuff...or as folks "zig zag" between tri and merle in Collies. Because of the test, we'll know what sort of "zig zags" we need to do.

We know this mutation has 100% correlation with the disease in other breeds as well as in our own. So, over time, removing the mutation from our breeding population will eliminate the rarest but most heartbreaking manifestation of the disease...early death from renal failure in puppies and adult dogs. The fact that the worst of the disease is also the rarest means we have the TIME to select for the betterment of the breed's future and do it well and wisely. In addition, right now the mutation appears to be homozygous lethal...thus giving us one explanation (but obviously not the only explanation) for small litter size and/or missed breedings in our otherwise healthy carrier population. For me, that is plenty of impact on my own breeding program as well as on the long term health and well-being of the breed...incentive enough to test my dogs and my puppies and then "soldier" on.

Regards,
Leslie