



DNA TESTING FOR PROGRESSIVE RETINAL ATROPHY (GR-PRA2) IN GOLDEN RETRIEVERS

We are currently investigating two reports of anomalies in the DNA test for GR-PRA2 in Golden Retrievers. A variation, previously unknown to us, in the DNA of some Golden Retrievers interferes with the interpretation of the DNA test for GR-PRA2 in the breed. This variant is a second genetic change relatively close to the PRA-causing mutation that masks the test result. However, we believe that the anomaly does not affect the gene and is a harmless and common feature of the canine genome. Its presence has led to us being unable to get results for a small number of samples for GR-PRA2. An investigation into and the development of a solution for this problem is progressing well and we will complete the testing for these dogs as quickly as possible.

We believe that some dogs which appeared to have two copies of the disease form of the GR-PRA2 gene (and were therefore classified as *affected*) may, in fact, be *carriers*. We cannot exclude the possibility that some dogs reported as *clear*, having two copies of the normal form of the gene, may in fact also be *carriers* – but the evidence we have is that this is less likely. This anomaly will not impact dogs previously classified as carriers. As a precautionary measure, we will re-test all Golden Retrievers so far tested for GR-PRA2 and inform clients of any change to their test result as quickly as possible, although we do not expect that large numbers of samples will be involved.

This second genetic change was not identified in the original research into GR-PRA2 because it is rare compared with the other normal form of the gene, and it was only when we began routine testing that the larger number of samples available (we have now tested over 300 Golden Retrievers for GR-PRA2) revealed the discrepancies.

This issue does not affect results for GR-PRA1 in Golden Retrievers, nor that of any other DNA test that we offer.