

Prcd-PRA Testing Information

This year, once again, GRF is generously combining its ongoing DNA blood collection project with the additional service of collecting blood samples for prcd-PRA testing by Optigen LLC. Optigen is offering a substantial discount on this test for samples collected at our special clinic.

The cost of the test will be \$136.50 per dog, with the GRCA "super clinic" discount. You get 5% discount for ordering online; and an additional 25% by submitting your samples as part of the clinic. There will be no charge for blood drawing and shipping, as that is being underwritten by the Golden Retriever Foundation. This should save everyone about \$70 per dog over the cost of testing dogs individually. Discounts can be greater if you are also doing additional DNA tests, i.e. GR_PRA1 and/or ichthyosis. Only one blood sample is required for multiple tests done by Optigen.

*** * * * Note: The prices noted above are approximately the same as in the past. We have not received the exact figures from Optigen, yet. * * ***

Samples will be accepted from all breeds that use the prcd-PRA test. So, tell your friends at your all-breed clubs. Cheek swabs can also be brought for dogs not attending the Specialty. See further details below.

WHERE & WHEN: (both DNA collection & prcd-PRA collection)

Field Trial: Monday – Sept. 26 at the Field Trial Welcome Dinner

Show Site: GRF Booth - Tues., Sept. 27: 1PM to 4 PM;
Wed., Sept. 28: 10AM to 4 PM
Thurs. Sept. 29: 10AM to 4 PM
Fri., Sept. 30: 9AM -

NOTE: The DNA booth will be in the same room as the eye & heart clinics, just off the Horse Arena.

No specific appointment time is required, but we will be asking you to tell us in advance which location you will be attending. This will help keep the paperwork in order.

To participate, you will need to follow these steps:

(1) Go to the Optigen website [www.Optigen.com]. Go to the 'Instructions and Information' button, then click on 'Getting Started'. Print this out, so that you can refer to it when filling out your order form.

(2) The **DISCOUNT CODE:** GoldNS9251 Code will be active from **September 15 to October 1.**

(3) Have your AKC numbers and/or microchip and/or tattoo numbers handy. Optigen also asks for CERF numbers if you have them for your dogs, as well as for the results of your dog's last eye exam. If you will be ordering more than one test, you will have the chance to indicate that you are entering more than one dog. Then, you can proceed from one dog to the next as you complete each form.

(4) As you complete each order, you will be asked to print out the form. You **MUST** bring this form with you to the blood-drawing clinic at the National. It will be attached to your dog's blood sample, which will also be labeled with your dog's call name, and the owner's last name. It is a good idea to print an extra copy for your home files.

(5) You will pay Optigen online with a credit card as part of the ordering process. Your card will not be charged until Optigen receives the sample (at least a couple of days after the last blood draw at the National). **ABSOLUTELY**, no payments will be accepted at the blood drawing clinics.

(6) When you have placed your orders, please forward each dog's call name, owner's last name, and breed to Gerry Clinchy at G.Clinchy@gmail.com.

Optigen states that a list of participants (by call name and owner name) will be helpful when the shipment arrives. We MUST prepare a **Master List in advance** to assist the on-site volunteers and to include in the shipment to Optigen. It is important for us to do this to assure you get your discount and that no sample is lost.

No specific appointment time is required for blood draws. Just appear with your dog and paperwork at the dates and times mentioned above.

SPECIAL INSTRUCTIONS FOR THOSE AT THE FIELD TRIAL SITE:

Blood draws are scheduled for the Field Welcome Dinner, just before dinner. We have some volunteers, but please ask if they need more help with the paperwork aspect if you are free to lend a hand.

Since conditions here will be more "rustic", we need a bit more help from participants.

- 1) Place your Optigen paperwork inside a sandwich-bag size plastic bag. Place a label on the bag with your own last name & your dog's call name.
- 2) Also bring along a second sandwich-bag-size plastic bag, inside of which is JUST ONE paper towel. Place a label on this bag as well with your own last name & your dog's call name.

In this way, the tube of blood can just be placed in the package, and there will be no chance of damage when it is transported over to Mike at the show site. (**We need one volunteer** to take the cooler of blood samples that night, keep it cold & then deliver it to Mike on Tuesday afternoon at the GRF booth at the show site.)

Kaye Fuller will be doing the field trial blood draws. Kaye and Roger will be running dogs at the field trial. If you need to contact them, call Roger Fuller's cell phone: 512-659-5428 or email to Roger at his Droid phone: Rfuller2316@Gmail.com

When you have received your results from Optigen (approximately two weeks), you can record the results at no charge at www.GoldenDNA.com. You can also record them with the OFA for a fee of \$15.00. In both instances, it is important to record dogs that are clear, carrier or affected. By recording all results, we can then better predict the additional dogs that should be tested as being at higher risk for carrying this gene.

This clinic WILL accept other breeds for prcd-PRA testing. Labs, Chessies, Poodles, Tollers & many other breeds also use this test. This includes any Optigen testing that is available for these other breeds.

We cannot do cheek swabs at the National due to the possibility of contamination. However, you may hand-carry swabs that you have collected at home. Please read the next section if you wish to bring cheek swabs for your dog to include in the clinic participation.

You can test your dog even if you aren't attending the National!

If you are not attending the National, or if you are leaving dogs at home that you would like tested, CAN DO!

You have two choices for doing this: (you MUST still contact Gerry Clinchy at G.Clinchy@gmail.com to put you on the Master List)

- 1) You can draw blood or do cheek swabs at home, and mail/ship them directly to Optigen. **ONLY GOLDEN RETRIEVERS** can send samples directly to Optigen.
- 2) You can send your cheek swabs to Mike Lappin at his hotel at the National, to arrive between Monday, Sept. 26 and Thursday, September 29, 2011.

- 3) Send to: **Mike Lappin, c/o Ramada Conyers Inn and Conference Center, 1351 Dogwood Drive, Conyers, GA 30012**

OTHER BREEDS can also send their samples to Mike Lappin at his hotel at the National so that they can be included in the bulk shipment.

You can submit your dog's sample via cheek swab. Please carefully read the directions on the Optigen website for collecting the DNA material correctly to avoid contamination.

If your vet does not have sterile swabs needed for DNA collection, you may be able to get them at a human pharmacy or hospital. Optigen does NOT provide "kits" for this.

Once you have collected the DNA material on a swab, place it in the small envelope provided with the swabs. Put your dog's call name and your last name on this envelope. Place the swab envelope AND your Optigen order form in a larger envelope. Again, put your dog's call name and the owner's last name on this envelope.

- 4) You will need a third larger envelope to mail the swabs and paperwork to: **ATTN: Mike Lappin, TBAdded**

Your samples must arrive no later than September 29. Mike will be overnight shipping all the samples (both blood vials and cheek swabs) to Optigen.

If swabs are being hand-carried to the National, you will not need that third envelope. Simply bring the envelopes to the clinic site/GRF booth at the show site and give them to Mike Lappin.

Remember to use ONLY paper envelopes. Absolutely NO PLASTIC is to be used for when using cheek swabs for this DNA test. Plastic may allow moisture to form and bacterial growth could contaminate the sample.

This year Optigen will still accept direct shipment of samples from Golden Retrievers during the clinic dates of September 25 through October 5. They will NOT accept direct submission of any samples of other breeds. HOWEVER, other breeds can participate "long-distance" by mailing their samples to Mike Lappin at his hotel at the National Specialty so that those samples will be included with the clinic shipment.

Please help!

If you can volunteer to help us (dog holding, paperwork, etc.), please contact Dr. Michael Lappin at anidoc@intercape.com or anidoc@comcast.net Mike is the on-site coordinator for all blood drawing projects taking place during our National. Even if you donate only one hour of your time, you will be assisting with these valuable research efforts. You and your dog can make a difference!!!

About the DNA tests now available for Golden Retrievers

PRA is the abbreviation for "progressive retinal atrophy", and one form of this disease is the "prcd" type, progressive rod and cone degeneration. PRA is an inherited disease, and the prcd form of PRA is inherited as a simple, autosomal recessive gene for which there is a DNA test to determine whether a given dog is "affected", "carrier" or "clear". (PRA is analogous to retinitis pigmentosa in humans.)

The physically evident age of onset of this disease in Golden Retrievers appears to be between 3 to 6 years of age, earlier with the use of electroretinograph (ERG). The DNA test can be done much younger, as the genetics of the dog are the same at any age. The dog gradually loses vision. This is first evident in diminishing night vision and peripheral vision in daylight. From what we know so far, total blindness seems to

occur around age 10. For a working gundog or field competitive dog, it is likely that their diminishing vision would negatively impact their performance long before total blindness would occur. As vision decreases gradually, the dogs seem to adapt to their handicap. As far as we know, the disease causes no pain to the dog.

While approximately 20 breeds are known to have the prcd-PRA gene, until February 2007, the gene had not been identified in Golden Retrievers. All forms of PRA are uncommon in Goldens, and until February 2007 some believed the prcd form of the disease simply did not exist in Goldens.

About 3-1/2 years after finding the first Golden Retriever to have this gene, over 1,000 Golden Retrievers have been tested in North America and Europe. From these dogs, 11 unique carrier families have been identified in North America; and four more lines in Europe. Of the four European lines, at least two are completely European in origins, while the other two may have their source of the gene in either European or North American ancestry. All of this information is available through data voluntarily reported by owners and breeders on www.k9data.com and/or www.OFFA.org, and/or www.GoldenDNA.com, and websites maintained by various Golden Retriever clubs in Europe, as well as several individual breeder websites.

Based on records of the ACVOs (American College of Veterinary Ophthalmologists) for 2000 through 2005, the incidence of all PRA in Golden Retrievers is less than 1%. Among the dogs DNA-tested for prcd, the percentage is higher. This is because the dogs most often tested, at this time, are dogs already known to be members of families where the gene has been identified. The testing so far has not been as "random" as would be needed to determine a true percentage in the population at large.

This particular form of PRA is very easy to control and manage because the DNA test has proven itself highly reliable in so many other breeds. To have irrefutable scientific proof of the test's efficacy in Golden Retrievers, we need to find and identify other affected dogs, affected in terms of the DNA test results and also in terms of physical evidence. According to Optigen statistical information, five Golden Retrievers have been identified as affected (as of December 2009). Among these dogs, two are old enough to have vision impairment; one of the younger dogs has evidence of PRA via ERG, but no apparent vision impairment yet. Thus, in three of the five presently identified as affected by the DNA test, there is 100% correlation with physical evidence of disease (one by electroretinograph).

By testing Goldens now, while PRA is an infrequent occurrence in the breed, we can prevent this form of PRA from ever becoming a major problem for the breed. We can do this without significant damage to the gene pool by using the DNA test to gradually lessen the occurrence of the gene even further, but still using carriers (and even affected) dogs wisely. By controlling this form of PRA now, we will be in a better position to deal with any other forms of PRA that may become evident in the breed in the future. This DNA test only tests for the prcd form of PRA, and canNOT guarantee that a dog is also free of all possible forms of PRA that may occur in Golden Retrievers.

More detailed information on prcd-PRA, GR_PRA1 and Ichthyosis, please refer to the Optigen website: www.Optigen.com.