

To Daphne, With Love

Daphne was born on May 6, 2001, one of three bitches in a litter of seven puppies. She had the most marvelously expressive little face, and Mardi Closson was sure that each time she saw the litter Daphne was telling her, "Pick me!" Who could resist that face?



When Daphne was about two years old, Mardi went to "dog camp" with her young girl. One of the recreational events there was an animal communicator. When Mardi and Daphne visited this nice lady, she looked into Daphne's face and said, "This is a very special dog. She is going to do great things."

That evening at a pre-dinner get-together, the behaviorist again sought out Mardi from the crowd. She had not been able to forget the feeling she had gotten when she met Daphne earlier in the day. Again her words were, "This is a very special dog." This was beginning to get a little eerie.



Mardi was totally puzzled. Mardi was thoroughly enjoying running Daphne in agility competition. She had plans for a GRCA Working Certificate and a Junior Hunter title. Mardi had always presumed that they would pursue the AKC Master Agility Championship. None of that, however, would be extraordinary as Mardi, and her husband, Clyde, had already been successful with their older dogs in all these things.

In late November 2004, Daphne whelped her first litter of four males and five females. She was bred to a wonderful dog from Oklahoma, with high hopes of producing talented offspring who would be competitive in multiple areas of the dog sport.

By late 2006, Mardi was planning on Daphne's second litter. As part of the routine, in January 2007, she went to a local club eye clinic to update her eye exams. The examiner's face got very serious as he said, "I haven't seen a case in a Golden in at least ten years. I believe this dog has PRA. I would suggest you get a second opinion." As soon as she could get an appointment, Mardi was on her way to Dr. Gustavo Aguirre, one of the doctors who had developed the DNA test for prcd-

PRA. It was a stroke of good fortune that Dr. Aguirre had returned to the University of Pennsylvania just a few years earlier, after an extended tenure at Cornell University in New York State.

Dr. Aguirre unequivocally confirmed the diagnosis of PRA, and immediately drew blood for the DNA test. He explained to Mardi that this was a long shot. Since PRA was considered generally rare in Golden Retrievers, only a few affected Goldens had been tested previously (probably about 20), and none of those tested had revealed the presence of the prcd-PRA gene.

Dr. Aguirre also explained that if Daphne showed the presence of the prcd-PRA gene, it would be “good” news. It hardly seemed possible that there could be any good news when you had just been told that your dog was destined to go blind.

He explained that if Daphne had this particular form of PRA, one could use the DNA test to be sure not to produce any more blind dogs. The “bad” news would be not to have this gene. If Daphne did not have the gene, he could offer no advice but to terminate the breeding program. What Dr. Aguirre did not know was that Daphne’s diagnosis impacted several breeding programs, not just one.

In February 2007, Daphne’s DNA test results were in Mardi’s hands. Daphne’s test indicated she had two copies of the mutated gene that had been proven to produce PRA in nearly 20 other breeds of dogs. She was the first Golden Retriever identified to have the prcd-PRA gene.

In the months that followed, many of Daphne’s relatives submitted blood (and frozen semen) for testing. The results of those tests were consistent with the way this gene had behaved in other breeds. In June 2007, by pure random chance, another carrier, unrelated to Daphne, was identified. Stunning news. This new carrier would impact many more breeding programs. Just 21 months after Daphne’s testing, as of September 2008, about 500 Golden Retrievers have been tested for the prcd-PRA gene (by Optigen LLC in Ithaca, NY, the laboratory licensed by Cornell to perform this test commercially).

As of July 2008, through the self-less sharing of test results by Golden owners all over the world, eight “unique” carriers had been identified in North America, and three more in Europe. All of this information came from the voluntary sharing of information by the owners of the dogs. (Optigen only releases test result information to the owner of the dog tested.)

Golden Retrievers find themselves in the enviable position to prevent a serious eye disorder from ever becoming an overriding issue for the breed. By the wise use of DNA testing, Golden Breeders can continue to safely breed carriers of the gene and not sacrifice genetic diversity in the breed.

For this “golden” opportunity, we thank Daphne and her owners, Clyde and Mardi Closson, who have never wavered in their love for Daphne or their love for Golden Retrievers. Thanks are also due to all the members of the Golden Retriever community who have placed the welfare of this wonderful breed above all else by sharing the valuable information they have gathered by testing their dogs for this genetic disorder. If there was ever a reason to be proud to be associated with the Golden Retriever breed, this is certainly one of them.

As Daphne approaches 7-1/2 years of age, she still enjoys competing in agility and retrieving training bumpers. She has begun to show signs of visual deterioration. There are times when she balks at certain obstacles on an agility course in certain lighting conditions. Mardi notices signs that Daphne is compensating for some loss in peripheral vision. Mardi is thankful that because she is aware of Daphne’s physical condition she can continue to keep Daphne safe from injury due to her decreased vision. Daphne continues to enjoy life and adapt to her gradual loss of vision.

Oh, yes, on July 1, 2007, Daphne did put the coveted “MACH” title in front of her name. Along the way she also became a member of the GRCA Agility Dog Hall of Fame.

And, yes, those puppies born in November 2004, have gone on to put a lot of titles in front of and after their names. They made their mom proud and earned her yet another award as a GRCA Outstanding Dam.

Seven of Daphne’s nine offspring have been DNA-tested for prcd, and all of them are carriers, as would have been anticipated. It hasn’t slowed them down one bit!





Daphne's legacy will not be limited to just a few very talented offspring. Through the data we gather from testing large numbers of Golden Retrievers for the prcd-PRA gene, we will be able to validate that this DNA test can perform as reliably

for Golden Retrievers as it has for other breeds. With that kind of knowledge, there never has to be another Golden Retriever who is blind from the prcd-PRA gene. With the experience gained, Golden Retriever breeders will be prepared for the challenges of using future DNA tests to continue breeding the healthiest Golden Retrievers possible.