

Finnish PON Club's Breeding Committee has tested the RCD4 gene test for PRA in the PON

RCD4 gene test was developed to identify a gene mutation that causes PRA in the English Setter. The same gene defect was found to be present also in the PON but it is not known if all the cases of PRA in our breed are caused by this gene defect.

Finnish PON Club's breeding committee decided to find out whether the RCD4 gene test identifies correctly our dogs who show clinical PRA or are assumed to be carriers of PRA. We chose a group of PON dogs to be tested: this group consisted of dogs who either have been diagnosed with clinical PRA or are assumed to be carriers. The assumption lies on the mode of inheritance where the parent dogs of an affected dog must both be either carriers or affected. We chose dogs from as many different bloodlines as possible and with PRA diagnosed in different ages.

The Finnish PON Club paid for the testing of 11 PON dogs and the Welsh PON Club donated funds to test 5 more dogs. This made it possible for us to have nearly all the dogs tested that fulfil the above-mentioned criteria. The owners of the dogs had a positive attitude towards participating in the project and covered the postage costs. The tests were done by OFA / Missouri.

Dogs tested: Assumptions and Results

Borgåkers Ponparelli

Eye examination results: Clinical PRA in the age of 5 years.

Assumed result in the RCD4 test: Affected

Result in the RCD4 test: Affected

Cynia Moscic

Eye examination results: Eyes clear in the age of 1 year, clinical PRA in the age of 7 years.

Assumed result in the RCD4 test: Affected

Result in the RCD4 test: Affected

DraqueBien Aristeo Y Balint

No eye examination performed.

Assumed result in the RCD4 test: Carrier or Affected (one parent has clinical PRA)

Result in the RCD4 test: Carrier

Flinkbein Kaktus

Eye examination results: Clinical PRA in the age of 2 years.

Assumed result in the RCD4 test: Affected

Result in the RCD4 test: Affected

Flinkbein Zupelny Sukces

Eye examination results: Eyes clear in the age of 1 year, clinical PRA in the age of 8 years.

Assumed result in the RCD4 test: Affected

Result in the RCD4 test: Affected

Jagoda's Dzielny Zaz

Eye examination results: Eyes clear in the ages of 1 year and 7 years.

Assumed result in the RCD4 test: Carrier or Affected (progeny with clinical PRA)

Result in the RCD4 test: Carrier

Lovlipon The Next Generation

No eye examination performed.

Assumed result in the RCD4 test: Affected (both parents have clinical PRA)

Result in the RCD4 test: Affected

Marquee Flamdoodle

Eye examination results: Eyes clear in the ages of 3 years and 6 years, clinical PRA in the age of 9 years.

Assumed result in the RCD4 test: Affected

Result in the RCD4 test: Affected

Marquee Jigalorum

Eye examination results: MRD in the ages of 1 year and 5 years.

Assumed result in the RCD4 test: No assumption, tested to see if RD has relation to the later occurrence of PRA.

Result in the RCD4 test: Carrier

Marquee Kicks Borgåkers

Eye examination results: Eyes clear in the ages of 1 year and 6 years.

Assumed result in the RCD4 test: No assumptions. Stepbrother with PRA.

Result in the RCD4 test: Carrier

Marquee Second-Fiddle

Eye examination results: MRD in the age of 2 years.

Assumed result in the RCD4 test: Carrier or Affected (parent with clinical PRA)

Result in the RCD4 test: Carrier

Oktet ze Spiewogry

Eye examination results: MRD in the age of 3 years, clinical PRA in the age of 7 years.

Assumed result in the RCD4 test: Affected

Result in the RCD4 test: Affected

Ruta ze Spiewogry

Eye examination results: RD spot in the age of 4 years, clinical PRA in the age of 6 years (confirmed with ERG).

Assumed result in the RCD4 test: Affected

Result in the RCD4 test: Affected

Stokrotka Hajko-Nerita

Eye examination results: Eyes clear in the age of 2 years, cataract in the age of 6 years.

Assumed result in the RCD4 test: Carrier (progeny with clinical PRA, also RCD4 Normal progeny)

Result in the RCD4 test: Carrier

Talizman Flinkbein Kontekst

Eye examination results: Eyes clear in the age of 6 years.

Assumed result in the RCD4 test: Carrier (progeny with clinical PRA, also RCD4 Normal progeny)

Result in the RCD4 test: Carrier

Zodiak Gazda z Banciarni

Eye examination results: Eyes clear in the age of 1 year, macroblepharon in the age of 4 years.

Assumed result in the RCD4 test: Carrier or Affected (parent with clinical PRA)

Result in the RCD4 test: Affected

One dog has been tested with the RCD4 test in Belgium at our request:

Era Dla Lucy van het Goralenhof

Eye examination results: Clinical PRA in the age of 7 years.

Assumed result in the RCD4 test: Affected

Result in the RCD4 test: Affected

Costs were covered by the breeder.

RCD4 gene test identified all the tested dogs according to our assumptions. All the dogs with clinical PRA were found to be Affected by the RCD4 gene test no matter in which age the clinical PRA manifested itself.

The next step would be to follow the future dogs with the result RCD4 Affected to see in which age they fall ill. At the moment the age variance between PON dogs diagnosed with clinical PRA has been 1-11 years in Finland and Sweden.

Please notice that in the list above the text (example) "clinical PRA in the age of 6 years" does NOT mean that the PRA appeared in the age of 6 years; it means it was diagnosed when the dog was 6 years old and could have appeared a lot earlier.

In addition to the above listed dogs many Finnish dog owners and breeders have already tested their dogs with the RCD4 gene test at their own cost. It has appeared that one combination has been made where both the parent dogs are RCD4 Affected (at the time of mating this test wasn't available and the dogs had clinically normal eyes). 4 puppies born in the litter were tested and found to be also RCD4 Affected. This proves that the test is reliable. Some dogs have been tested by the RCD4 test offered by OFA in the USA and by the RCD4 test offered by Laboklin in Germany. The tests results were the same. The owners of the dogs covered the costs for this testing.

August 2nd 2013

On behalf of the Finnish PON Club's Breeding Committee

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