## Juvenile Cataracts Progression A Jack Russell Terrier Case Study

by Sandi Pensinger

The CERF test diagrams on the right show the progression of juvenile cataracts starting in a 2-year-old-terrier. The CERF tests shown are over a 2 year period. It is frightening to think that this terrier was affected at such a young age. Note the captions beside the diagrams. Although there is no pain involved, the terrier will have compromised vision. The breeder opted to remove the terrier from the breeding program by neutering the dog after the cataracts were discovered.

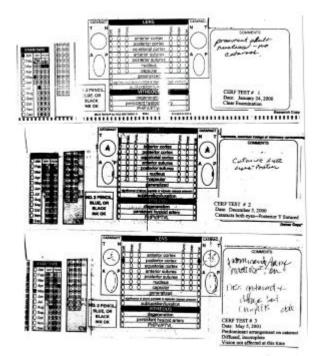
Juvenile cataracts can appear anytime from puppyhood to 5 years of age, making young breeding of a bitch or stud a higher risk proposition than breeding with a terrier that is over 5 years old who is CERFing clear. Assumably we will reduce our risk over time by testing and breeding with the intelligence that testing brings us. The development of a genetic marker test through studies like the UC Davis JRT Genetic Study can help breeders to remove uncertainty of genetic issues. Ultimately, a genetic test would reduce breeding risk even more than CERF testing will.

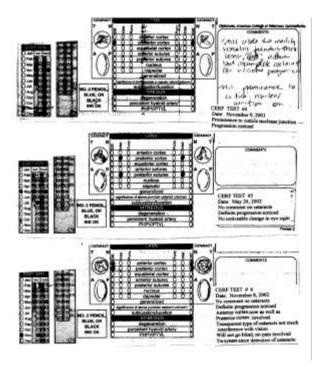


## Can this happen to my terriers?

CERF tests are the best way to examine a terrier's eye's for problems such as Juvenile Cataracts.

Progressive Retinal Atrophy (PRA) or Primary Lens Luxation. A regular veterinary exam may miss the common genetic diseases that we find in the Jack Russell Terrier. Veterinary Ophthalmologists have special tools and training to evaluate these eye issues. CERF stands for Canine Eye





The first image shows the terrier's CERF results from January 2000 through May 2001. The second shows the same terrier's results from November 2001 through November 2002. For larger images visit www.myjackrussell.com

Registration Foundation, which is an independent organization for all dog breeds. Once you have had your terrier's eyes examined, you can register the test results to CERF by following the instructions on the back of your CERF form. *CERF website:* http://www.vet.purdue.edu/~yshen/cerf.html

## **Confidential UC Davis Genetic Study**

Call to Affected and Normal Terrier Owners to Act Now.

Imagine the day when we could use a genetic marker test to make intelligent breeding decisions. We are getting closer to that day. The UC Davis research will help JRT owners and breeders to find a genetic marker for juvenile cataracts The test will help eliminate the disease in future JRTs.

The study is confidential and the information will only be available to impartial genetic research scientists at UC Davis. The UC Davis JRT Genetic study has succeeded in reaching the number of dogs that is needed to create the required statistical population, but affected terrier numbers need to be higher to ensure the success. If you have an affected terrier, your input is very valuable to the study. Terriers that are not affected are also needed. The more relationships (sisters, brothers, mothers, fathers, puppies, aunts, uncles, etc.) that are in the study, the faster the research will be able cross check to find the responsible gene or genes.

It is very easy to swab the dogs and send kits in, please consider sending for a free cheek swab kit from the Canine Genetic Analysis Project (CGAP) Web site at <a href="mailto:cgap.ucdavis.edu">cgap.ucdavis.edu</a> or call Dr. Anita Oberbauer at UC Davis at (530) 752-4997 to leave your name, phone, address and breed for a cheek swab kit. Instructions are included with the swabs. Your participation can make a difference and help to save the breed from juvenile cataracts and other genetic issues. It is up to terrier owners to do everything they can to help eliminate genetic faults.



## Is there anything I can do to help eliminate genetic disease?

- Terrier owners can CERF and BAER test their dogs.
- Terrier owners can submit cheek swabs of both affected and unaffected dogs to the UC Davis JRT genetic research study (cgap.ucdavis.edu).
- Terrier/puppy buyers can demand proof that the terriers parents and grandparents be CERF clear annually and BAER normal.
- Breeders can submit families and litters of Jack Russells. This is extremely helpful because each dog may have a different genetic configuration that when compared may help point to the gene that causes the disease. Researchers will use many samples to help find the genetic marker. Remember to submit new dogs and puppies to the study.
- Terrier breeders can thoroughly research pedigrees before breeding. They can ask for proof that the terriers are CERF clear and BAER normal. They can lower risk by waiting until the terriers are 5 years old and testing clear before breeding.
- Breeders can ask that stud dogs and bitches submit cheek swabs to the UC Davis study prior to breeding.
- Terrier owners/breeders can help by mentioning the research studies to friends and breeders in e-mail or on discussion groups or in club newsletters frequently.

We can make a difference, one terrier at a time!