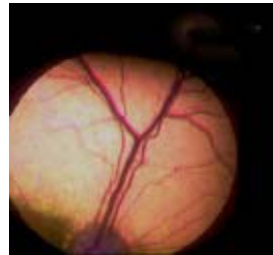
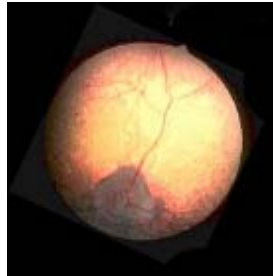


*This is what the veterinarian can see by eye testing*



*Normal eye*




*Eye with PRA*

*Do you want  
to support the project fund?*

*Payment can be done to:  
« PRA-project »  
Norsk Shetland Sheepdog Klubb  
Den Norske Bank  
Farmannsgaten 2  
N 1600 Fredrikstad, Norway*

*Account number: 5010.05.65517  
Swift address: DNB ANO KK FRE*



Clear eyes! We work together  
with the PRA-project. 

## *Information about the GPRA-project*

*Started  
in Norway  
October 2002*



**NORSK SHETLAND  
SHEPDOG KLUBB**

*Founded 6th March 1964*

**A**t the annual meeting in the Norwegian Shetland Sheepdog Club in 2002 it was decided that we should start the PRA-project, to try to find the DNA-gene for PRA.

The main reason to this project is that several cases of PRA have appeared during the last years in Sweden and Finland. Even if we have no PRA bred-dogs in Norway, we know that many dogs might be carriers, and this is also the case in other countries.

### ***The PRA-cases are GPRA - not CPRA***

By looking at the PRA-pedigrees, we can see that PRA will appear in more shelties in the future. These days, more than ever, it is important to test adult dogs for PRA.

PRA (Progressive Retinal Atrophy) is an inherited disease which gradually destroy the cells in the retina, and it ends with blindness. The first typical symptom is night blindness, followed by poor reflex or a «grey-green appearance» in the eyes in evening light.

***In shelties the disease appears between 3 - 7 years of age. Without eye testing the dog, a PRA-dog can breed several litters and carry the gene on to the next generations.***

***The disease inherit recessive. That means that two «healthy» dogs, who both are carriers, can produce PRA-dogs.***

***(Remember: A carrier only will be eye tested clear)***

The shetland sheepdog clubs in Norway, Sweden, Denmark and Finland have donated money for the project. Also several breeders and sheltie owners have donated money. In march 2003 the PRA-account is about 26.600 Euro (NOK 200.000,-). This amount is a good start for the PRA-research and we hope that we also will receive money from funds.

To start the research we need more money and more blood tests. Up to now we have gathered 35 blood tests from 4 PRA-families. The tests are from PRA-dogs, their parents, grandparents, litter mates and offspring.

There is no cure for PRA. The only result for a PRA-dog is blindness - sooner or later in life.

Therefore The Norwegian Shetland Sheepdog Club has decided to take the responsibility for this project, and hopefully the research can be a reality. If we succeed in finding the PRA-gene, a simple blood test in the future can tell if a dog is a carrier or not.

The Norwegian Veterinarian Institute will establish a research team. They will compare the genetic findings with other breeds research for PRA and see if there are connections to take advantage of in our PRA- research.

On the Norwegian Shetland Sheepdog Club`s web site you will find the pedigrees for the PRA-dogs. These pedigrees will give useful information to avoid line breeding in PRA-lines. Web address: <http://www.nssk.no>

***During the last years it has been found genetic key for PRA in several breeds. We know that a number of unequal genes can result in PRA. Unequal genes will often be involved in different breeds. As soon as the genetic key or genes involved in our breed have been found, this information can be used to reduce the existence of the disease in shetland sheepdogs.***

The best gift we can give our wonderful breed is to take this seriously and support the PRA-project, both by eye testing and by economic support. This concerns everyone - sooner or later PRA will catch more lines than we have seen to day. May be this is the only chance our breed will have to avoid PRA-dogs in the future.