



### **BVA guidelines for screening of Flatcoated Retrievers for Goniodysgenesis and a suggested breeding strategy in relation to this advice**

The BVA now advise screening of Flatcoated Retrievers every three years for Goniodysgenesis, the FCRS Health Sub Committee have received the following information from Ian Mason, BVA Chief Eye Panellist with regard to dogs whose eye status may have changed over time:-

'Any dog (Flat coated Retriever) examined under the BVA/KC/ISDS Eye Scheme will receive an Eye Certificate with the relevant findings noted whether or not this is a different result to previous findings. This is the case for all breeds examined and no matter what conditions of an inherited nature are being recorded.

The advice as to breeding from a dog found to be affected with Goniodysgenesis (whether or not found previously unaffected) remains as stated that it is inadvisable to breed from such animals. Glaucoma is a sight threatening and painful condition and as such needs to be limited by careful breeding.

As our knowledge of the mode of inheritance of Goniodysgenesis and related Glaucoma is limited it is not possible to say with certainty how safe it is to breed from offspring of dogs whose status has changed from unaffected to affected, even if the offspring has an unaffected result. Equally from the breed point of view I realise that to exclude all such offspring from breeding would be a potentially very serious reduction in the gene pool. The safest approach at this time maybe, although this is not proven, to leave breeding from such offspring until perhaps four years of age, allowing some time for progression of Goniodysgenesis if it were to happen in that animal. We do not currently have sufficient information to know with what frequency progression of Goniodysgenesis occurs in offspring of parents in which progression of Goniodysgenesis did occur. The charges for Gonioscopy have been adjusted where Gonioscopy and a general eye examination take place at the same time and are as stated on the BVA website.'

Further to this information from Ian Mason the FCRS Health Committee have been in discussion with Aimee Llewellyn (Geneticist) and Dr Tom Lewis (AHT, Quantitative Geneticist) regarding a suggested breeding strategy in order to minimise the risk of breeding affected dogs.

The following is Aimee's suggested breeding strategy, we would like to make it clear that this is Aimee's own advice and NOT Kennel Club policy:

The following recommendations are intended to help to reduce the risk of passing on *duplicate copies* of the genes for Goniodysgenesis. As the mode of inheritance is not fully understood, these suggestions cannot guarantee the health of any puppies, but may help breeders reduce the risk in future generations. These suggestions should

also be taken in balance with the health of the parent dogs as a *whole*, as there are many factors to consider when choosing mates.

- 1 Only breed from two unaffected dogs (unaffected at the time of breeding)
- 2 If a dog that has been used for breeding *later* becomes affected for Goniodysgenesis:
  - a) Progeny be used if tested unaffected, but waiting until perhaps later in life – 4+ years
  - b) AND/OR Progeny can be used to mates who have older parents that are both unaffected for Goniodysgenesis
- 3 For using young dogs, try to choose those unaffected, that have parents over 4 years (the older the better, to add assurance they won't develop Goniodysgenesis later in life) who are also recently screened unaffected. AND/OR those young dogs who have tested full siblings and half-siblings, and their own parents, who are unaffected

The best-case scenario is to seek out, and pair up those dogs with the widest number of close relatives (parents, siblings, progeny) who are unaffected, at ideally different ages. However, this is definitely a case where seeking dogs that don't have Goniodysgenesis, but are *not* related is key. In other words, finding two second cousins who are unaffected isn't going to be as helpful in the long run, and will likely making your breeding choices to the future more challenging. In other words, breeding for type, but not relatedness.

Aimee Llewellyn

Geneticist and Kennel Club Health information Officer.