



Flatcoated Retriever Society

AGM Health Report March 2022

Madam Patron, Mr President, Madam Chairman, ladies, and gentlemen.

Reports from Anna Hollis, Dr Jane Dobson, and Cathryn Mellersh, University of Cambridge

I have reports from the team at Cambridge giving an update on the three areas of their breed specific work which are:

- Research to develop a blood test to diagnose Histiocytic Sarcoma (HS) in FCR
- Research to understand the genetic basis of HS in the FCR
- The Cause of Death Register

Histiocytic Sarcoma research project: to develop a blood test to enable early detection of HS in Flatcoats.

Anna Hollis reports that the team are currently re-starting the lab work for the HS project, thanks to a timely injection of additional funding from a fundraiser. The KC genetics centre staff are very kindly helping to get the lab side completed, and she hopes to have this part of the project completed and results available by the end of the summer. Further details of the aims of this research are available on the Society website health pages.

Kennel Club Canine Genetics Centre breed specific HS DNA research

As reported at the 2021 AGM, following liquidation of the AHT, the archive of FCR DNA previously stored at the Trust was preserved and moved to the new site at the University of Cambridge, archiving of DNA from Flatcoats is being continued.

Cathryn Mellersh reports on a collaborative project she is to undertake following publication of research in the USA, she writes:

‘In January 2021 researchers in the United States published the details of two regions of the genome (called loci) that are associated with histiocytic sarcoma (HS) in Flatcoated Retrievers (FCRs) (Evans et al. 2021). This means that some dogs carry genetic variants in these regions that increase their risk of developing HS. Although the precise variants that confer risk have not been confirmed yet, identifying regions of the genome where risk variants are located is an important first step in understanding the genetic basis of HS better. Researchers from the Kennel Club Genetics Centre (KCGC) have agreed to collaborate with the paper’s authors, Dr Jacquelyn Evans and Dr Elaine Ostrander to achieve two objectives:

1. Confirm that the two loci described in the paper are indeed associated with HS risk in an independent cohort of FCRs. This is standard procedure for research studies investigating the genetics of genetically complex diseases such as cancer. DNA from a new cohort of FCRs with and

without HS will be genotyped for markers within the two risk loci and statistical analysis will be used to determine whether markers on the risk versions of chromosome 5 and chromosome 19 are found in cases more often than controls. These risk versions are known as risk alleles.

2. Calculate the frequency of the risk alleles in FCRs from the UK. Assuming the association is confirmed (1 above) then knowing the frequency of the risk alleles will be essential before we can begin to consider developing a breeding tool based on either or both of these risk loci.

The DNA extraction and follow up of controls will start imminently and it is expected that the genotyping will take place over the summer, with preliminary results anticipated by early Autumn. Acknowledgements -We would like to thank Luna's Legacy for providing vital funds to support this research. We would like to thank all the Flatcoated retriever owners who have contributed information, samples from their dogs and funds over the years – we wouldn't be in a position to do any of our research without you.'

Cathryn would be pleased to receive further DNA samples from Flatcoats affected with HS and in addition, some samples from healthy dogs over 10 years of age, please contact Liz Branscombe for a DNA collection kit if you are willing to support this research.

Further details of the project and the paper referenced above will be uploaded to the Society website after the AGM.

Cause of Death Register:

Jane Dobson last reported on the data entered on the Cause of Death register in July 2021, we have received a short update of entries made in the last 6 months which total 32, bringing the number of dogs on the register to approx. 200. Jane Dobson wishes to thank everyone who has contributed their information to this survey. Jane's report with the full analysis of recent data will be added to the website as usual after the AGM.

Jane references the future plans for breed specific research (as detailed above) writing:

'Cathryn Mellersh & Anna Hollis have reported separately on some exciting genetic projects that we are starting through collaboration with the Kennel Club Canine Genetics group who are now based on the Vet School site. These studies are only possible due to the availability of tumour tissue and blood samples from our large archive built up over many years through the Tumour Survey supported by Flatcoated retriever owners & breeders.'

I am sure you will agree that the current projects offer some hope that a breeding tool may eventually be developed. The Health Committee are extremely grateful to the teams at Cambridge who remain committed to continuing FCR breed specific cancer research.

Breed Health survey

Health Sub-committee member, Tamsin Swain RVN. Cert SAN, has spent many hours since the survey closed, cleaning and collating data, she sends the following preliminary report:

'The fourth breed health survey was conducted at the end of 2020; The first to be completed online, which proved to bring its own challenges. The return was far higher than previous studies which was fantastic.

Extracting usable and relevant data represented far more of an undertaking than had been originally appreciated although it is hoped that in any future survey, this could be improved.

The original number of submissions was 1493, however this did include several duplicated entries and individual entries of deceased dogs and 8 postal entries. The number used for analysis purposes was:

Live dogs 1177 (50% increase on 2011)

Deceased 603 (100% increase on 2011)

LIVE STUDY

Colour Black 88%, Liver 11%, Yellow <1%

Sex similar entries

Age 3months – 14.75

Neutered 36% (at an average age of 5.25yrs but worryingly, from under 6 months)

Eyes tested 18%

Hip Scored 16%

Elbow scored 8%

Patellar screen 4%

A greater range of activities undertaken by the dogs was seen, this included some new disciplines including: - Rally, Hoopers, Dog Parkour; as well as some search and rescue work and man trailing.

Overview:

Gundog type activities 38%

Agility 9%

Ringcraft/showing 11%

Obedience 11%

Assistance dogs 2%

DECEASED STUDY

Age: 2 months to 15.5yrs

Primary Causes of death (full detail will be included in final analysis)

Neoplasia, Heart Disease, 'Old Age', Renal Disease, Gut disorders.

A full report will be published soon and the survey results will inform our Society breed health strategy and the KC Breed Health and Conservation Plan going forward.

Health webinars

The health seminar day was delivered last summer in the form of online webinars via the Zoom platform. The recordings from this event and two further webinars are now available to view via the Society website health page (seminars).

Health testing- BVA/KC Eye Scheme

I thought clarification of the requirements for Flatcoated Retrievers may be useful following several recent enquiries from first time breeders. At the present time in the U.K. the Flatcoated Retriever is on the BVA/KC's list of inherited eye conditions for Goniodysgenesis/Pectinate Ligament Abnormality (G/PLA). Gonioscopy examination is the test that is used to check for presence of G/PLA, the condition that could predispose the Flatcoat to glaucoma. A certificate is issued with a PLA grade (0-3) with 0 being clinically unaffected and 3 severely affected. The results of this test are recorded and published by the Kennel Club in the Breed Record Supplements. Gonioscopy testing can be carried out from 6 months of age, it is recommended that this test be repeated every 3 years and continue into old age as PLA can have a late onset.

Occasionally Generalised Progressive Retinal Atrophy (GPRA) and Hereditary Cataract (HC) are reported in the breed and recorded by the BVA, the presence of these conditions would be noted on a general eye test. Since January 2020 it has been recommended that Flatcoated Retrievers have a general eye test performed annually and gonioscopy every three years by a BVA Eye panelist (members of the KC Assured Breeders Scheme are required to use the annual eye screening scheme). Results of general eye tests for breeds where there is no known inherited ocular disease (KIOD) will now also be recorded and published in the BRS as well as gonioscopy results. If no condition is found they will be published as an unaffected result, if there is an observation, this will be recorded as "observation made – results with owner", as at this time the hereditary component of the condition won't be known in the breed.

Patellar luxation assessments

Jane Alexander will be carrying out patellar luxation assessments at the Championship show on 3rd April, there are still some places available, please contact Liz Branscombe if you would like to book.

Sires table for 2021

The table of sires used in 2021 will be published on the website in the near future, there has been a delay in collating information due to the late publication of Kennel Club Breed Record Supplement for the last quarter of 2021.

Group Study report 2021

- 108 dogs have been registered in the 12 years since the Group Study began (2009/2010)
- 28 completed questionnaires were received in 2021 (If a participant does not return the questionnaire following 3 annual reminders, then the dogs are removed from the Study Group)
- Five deaths were reported during 2021 (malignancy reported as cause of death in most cases but one was from Alabama Rot)
- Owners of 5 dogs of the first cohort of approx. 40 dogs enlisted in the study 12 years ago are still actively participating.
- The study is now closed to new participants, but we continue to collect annual updates from the dogs currently enrolled, thank you once again to all those still actively participating in the Group Study.

As always, I am grateful to the Health Sub-Committee for their help and support.

Liz Branscombe DipAVN(Surgical) RVN

FCRS Hon. Health Secretary.