



Flatcoated Retriever Society

AGM Report March 2016

Cancer Research

The following report has been received from Dr Jane Dobson, University of Cambridge:

Tumour Survey

After 25 years of accruing data and samples, we decided that the tumour survey had served its purpose and run its course. The number of samples submitted had declined year on year for the past 5 years, and Tess Hoather, the stalwart of running the Survey has recently retired. The Tumour Survey was closed at the end of 2015 and we will no longer offer the free histopathology service for the Breed. The publications that have arisen from this work are listed below. We would like to take this opportunity to acknowledge the contribution of the following people and thank them for all their support over these 25 years:

The Trustees of the Flatcoated Retriever Tumour Survey, and all those who have raised funds to support this work.

Madeline Fordham & all the staff in the Histopathology laboratory who have processed the samples, Dr David Bostock and the many Pathologists & Residents who have reported for the Tumour Survey over the years.

Tess Hoather is currently supported by a Bursary from the Flatcoated Retriever Health Committee to archive and catalogue all the tissue and blood samples we have received over the years, as a valuable resource for future work.

Our interest in Flatcoated Retrievers and other breeds affected with histiocytic sarcoma will not end. In 2013 in conjunction with the Flatcoated Retriever Society's Breed Health Sub-Committee, we set up a website data-base to monitor the "health" of the breed by recording the cause of death when dogs die. We believe that this is an innovative and effective way to monitor the health of the breed that may shed light on new or emerging problems and show trends in health issues. In the event of a FCR death we very much hope owners will find the strength to help the Breed by visiting the Flatcoated Retriever Society website, clicking on Health, then follow the links to the Cause of Death Register and completing the short questionnaire.

Our team at Queens Veterinary School Hospital Cancer Therapy Unit (QVSH CTU) maintains a strong interest in the breed and in histiocytic sarcoma (HS) in general. Dr Sarah Mason, who joined us in 2015 as Principle Clinical Oncologist, has a particular interest in the medical and multi-modal therapy of HS, and Dr Marcinowska continues her research into HS tumour microenvironment. We would therefore very much like to hear of Flatcoated Retrievers affected with histiocytic sarcoma. The QVSH cancer therapy team are always willing to see patients diagnosed with HS and to advise on the treatment options which can be adapted for individual patients. We are also pleased to advise primary veterinarians on any aspect of diagnosis and case management, and would welcome the opportunity to receive tissue collected for diagnostic purposes from such cases.

Publications & Presentations arising from our Studies into Cancer in Flat-coated Retrievers.

1. Morris JS., Bostock DE., McInnes EF., Hoather TM., Dobson JM. A histopathological survey of neoplasms in flat-coated retrievers: 1990 – 1998. *Veterinary Record* 147: 291 – 295, 2000.
2. Morris JS., McInnes EF., Bostock DE., Hoather TM., Dobson JM. Immunohistochemical and Histopathologic features of 14 malignant fibrous histiocytomas from flat-coated retrievers. *Vet Pathol* 39: 473 - 479, 2002.
3. Mellanby RJ., Holloway A., Chantrey J., Herrtage ME & Dobson JM. Immune-mediated haemolytic anaemia associated with a sarcoma in a flat-coated retriever [Case Report] *Journal of Small Animal Practice* 45: 21 - 24, 2004
4. Dobson J.M. Villiers E., Roulois A., Gould S., Mellor P., Hoather T., Watson P. Histiocytic sarcoma of the spleen in flat-coated retrievers presenting with regenerative anaemia and hypoproteinaemia. *Veterinary Record* 158 (24) 825 – 829, 2006
5. Dobson J.M., Hoather T., McKinley T.J. & Wood J. Mortality in a Cohort of Flat-coated Retrievers in the UK. *Veterinary and Comparative Oncology*, 7 (2) : 115 – 121, 2009
6. Constantino-Casas F., Mayhew D., Hoather T.M. Dobson J.M. The presentation and classification of histiocytic sarcomas in the flat-coated retriever. *Veterinary Pathology* May 2011 48: 764-771, first published on October 7, 2010 doi:10.1177/0300985810385153
7. Abbondati E, Del-Pozo J, Hoather T, Constantino-Casas F, Dobson J An immunohistochemical study of the expression of the hypoxia markers Glut-1 and Ca-IX in canine tumors. *Veterinary Pathology* 50(6):1063 – 1069, 2013. E pub 29th April 2013

Presentations

1. Morris JS, Bostock DE., McInnes E., Hoather T., Dobson JM . A histopathological survey of cancer in the Flat-coated Retriever. *Clinical Research Abstract, BSAVA Congress 1999, Congress Synopses* p 314.
2. Aguirre_hernandez J., Dobson JM., Hoather T. Sargan D. Inheritance of histiocytic sarcomas in flat-coated retrievers. *BSAVA Congress 2005 Scientific Proceedings* p 634
3. Dobson JM Radiation response of appendicular histiocytic sarcoma in flat-coated retrievers. *ESVONC Spring meeting, Cambridge, March 2007*
4. Marcinowska A, Hoather T, Williams T, Dobson J, Constantino-Casas F Assessment of infiltrating lymphocytes in histiocytic sarcoma of Flat-coated retriever: a comparison of different locations. *ESVONC Congress 2014.*

Cause of Death Register

Jane Dobson has sent the following report / update on the data entered up to March 2016.

To date 412 dogs have been entered into the Cause of Death Data-base.

Year of death	Number entries
Pre 2005	11
2005	8
2006	2
2007	11
2008	4
2009	10

2010	18
2011	24
2012	57
2013	115
2014	81
2015	68
2016	3

Sex

Female: 195 140 neutered, 55 entire

Male: 217 106 neutered, 111 entire

26 Liver, remainder Black

Cause of death, entries, general category

Cause	Number affected		comment
	N	%	
Endocrine disease	0		
Gastrointestinal disease	10		5 GDV
Haematological	10		Haemolytic anaemia, 3
Heart disease	16		
Kidney disease	19		Not specified
Liver disease	4		
Musculo-skeletal	4		
Neurological	6		
Old Age	30		
Other	19		Suspected haemorrhage, 3
Respiratory disease	3		1 x laryngeal paralysis
Trauma / accident	5		RTA most common
Tumour / cancer related	268	65%	See separate table
Unknown	17		Quite a few "sudden death"

Comment

A lot of dogs have been entered since my last report, which is encouraging, and interestingly has reduced the percentage of tumour-related deaths (a bit). Perhaps this is good reason to continue promoting the Register within the breed, to highlight the need for vigilance with respect to other problems, for example, Gastric-dilation-volvulus, accounted for at least 5 deaths and cardiomyopathy appears to be the most common form of heart disease.

Update on the AHT's Goniodysgenesis and Glaucoma Project in the Flatcoated Retriever

Objectives of the study

1. To provide robust and current prevalence data for pectinate ligament dysplasia (PLD) in the Flatcoated Retriever (FCR) in the UK
2. To collect DNA from i) PLD cases ii) primary glaucoma (PG) cases and iii) controls and perform genome-wide association analyses for PLD and PG
3. To identify genetic variants that confer susceptibility to PLD and PG in the FCR and ultimately develop a DNA test to reduce disease prevalence.

Cathryn Mellersh and James Oliver report that they have now identified a region of the FCR genome that is associated with goniodysgenesis/glaucoma in the Flatcoat at a statistically significant level. Work is now in progress to analyse the genome sequence data from three FCRs (two affected with glaucoma and one unaffected) This will be a lengthy process as there is a vast amount of data to sift through but we will be kept informed regarding progress of the research.

This part of the process is made possible by the kind funding from the Society Rescue and Rehoming DNA Research Fund.

James Oliver will be attending the Society Open show on 4th June and will carry out free gonioscopy testing and take cheek swabs to assist in his research (normal BVA fees apply if you require a BVA certificate for the gonioscopy). It will be useful to examine dogs of all backgrounds and ages that have not already contributed to the study regardless of whether they have had a previous BVA eye test or not. For further information and to make a booking please contact Liz Branscombe.

A more detailed report from James Oliver will be made available on the Society's website 'More Health Matters' page following the AGM.

Animal Health Trust (AHT) / Kennel Club (KC) Give a Dog a Genome Project

The AHT and the KC genetics centre have recently launched a research project called 'Give a Dog a Genome' (GDG) the aim is to sequence the entire genome (2.4 billion letters of DNA) of 50 dog breeds. The resulting information will increase the ability to identify mutations which cause inherited diseases.

It costs approximately £2000 to sequence a genome however the 50 breed clubs who agree to join the project will be asked to contribute £1000 as the GDG work will be part funded by the KC Charitable trust. The Flatcoated Retriever Society's General Committee has agreed to support the participation of our breed in this initiative by making a donation to the research project. This project will give us the opportunity in the future to research other conditions in the breed thought to be inherited, such as renal dysplasia for example. News of the progress of the project and how it specifically relates to the Flatcoated Retriever will be reported in the future via the Society website health news page and in AGM health reports.

Further information about the project can be viewed on the Animal Health Trust website:

www.aht.org.uk/gdg

Banking of DNA Samples by the Animal Health Trust (AHT)

Bryan McLaughlin (Graduate Research Assistant) has sent the following report regarding stored DNA samples from Flatcoated Retrievers.

'In the past 14 years we've received 1855 samples from the breed, including a small percentage of re-samples, of which 193 have reported some sort of health issue which is either known or suspected to be hereditary.

In 2015 we obtained 65 samples, of which only 10 reported some sort of health problem. Three with suspected kidney related issues, four with either goniodysgenesis or glaucoma, one cancer related death, one laryngeal paralysis case whose siblings were similarly affected, and one Cushings affected dog.

The majority of submissions are from dogs of unknown clinical status, and are typically young dogs, however there are a few that could potentially be used for control purposes where copies of exam clearances have been provided. We also regularly receive health updates for dogs whose sample was banked many years ago and their clinical status has recently changed.

Occasionally we do get samples from unaffected close relatives such as siblings/offspring/parents, but depending on the condition in question and the control criteria they may not qualify for inclusion in a study, however they could be good references should a mutation be determined and we need to check the wider family group.

Renal Dysplasia

Four cases of suspected renal dysplasia have been reported to the Society's health committee during the last year.

Bryan McLaughlin has sent the following information regarding DNA samples received in the last fourteen years from dogs affected with renal disease:

'There are maybe 15 cases in total that report mostly unconfirmed renal dysplasia. The range of age of onset varies considerably among these reported cases, some are very much juvenile onset, some are middle aged and in the late stages of renal failure, and a few others indicated renal problems in dogs over ten years old, which may simply be age-related?'

The AHT require at least 24 samples before genetic research can begin, if we are to progress with research into this condition it is therefore vital that we encourage owners to report diagnosed or suspected cases and submit DNA samples from affected dogs and their close relatives. Information will remain confidential. The collection of the DNA can be undertaken by the owner and full instructions come with the kits.

Free DNA kits can be obtained from Liz Branscombe, address and email in Yearbook.

Health seminar

The Society is holding a health seminar at the Kennel Club Building in Stoneleigh on Sunday 26th June 2016. Places are free for members and £20 for non-members (buffet lunch included) There will be lectures on the following topics: ophthalmology, acupuncture, making balanced breeding decisions and cancer research. Further details about the programme and booking information is available on the Society website or by contacting Liz Branscombe lizzie@torinmill.plus.com

Kennel Club (KC) Pedigree Breed Health Survey 2014

For those who have not already seen them, the results of this survey have recently been published by the, individual breed data can be viewed on the KC website. The KC have advised that data from this survey and their 2004 survey is not directly comparable, the following statement is taken from their website:

'Please note there were substantial differences in the way the 2014 survey was conducted compared to the Purebred Dog Health survey, which was carried out in 2004. The 2014 survey was directed at owners of all KC registered dogs over the past ten years and promoted to the general dog owning public, whereas the 2004 survey was publicised solely to breed clubs. Given the difference in methodologies between the surveys, the data from each is not fully comparable and differences observed do not definitively imply changes in population parameters'. - See more at: <http://www.thekennelclub.org.uk/vets-researchers/pedigree-breed-health-survey-2014#sthash.xPfY2YkW.dpuf>

Patellar Luxation

Jane Alexander will be holding a screening session this year at the Flatcoated Retriever Society Championship Show on April 3rd.

Group Study

The study has now been running for nearly six years, the group totals 86 FCRs. The initial group who began in 2010 comprised 35 dogs, of this number 30 remain in the study (2 deaths and 3 owners having opted out) however questionnaires were only received from owners of 18 of the 30 in this 2010 year group last year.

In total 47 annual questionnaires were received in 2015, leaving 39 outstanding, some owners have not returned questionnaires for more than two years so we should perhaps assume they no longer wish to participate.

The majority of participants were fit and healthy, with only minor illness occasionally reported. Other conditions reported were thyroid disease, benign histiocytoma and a growth related orthopaedic condition.

Flatcoated Retriever Sires 2015

Data relating to sires used during 2015 has been collated from the Kennel Club Breed Record Supplements and is now available on the FCRS website.

I would advise anyone who is considering breeding a litter to read the KC's article on 'The Popular Sire Effect' before choosing a stud dog:

<http://www.flatcoated-retriever-society.org/images/stories/health/the%20popular%20sire%20effect.pdf>

BVA/KC Hip scheme

The BVA's advice is now revised, in order to make selection of breeding stock easier both 5 and 15 year median scores are published along with the rolling 5 year medians (the median is a figure in mathematics at which an equal number of items are both higher and lower. It therefore represents the middle of the population, or the average item) Because of the way in which the scores are given (higher scores = worse hips) the breed median will always be less than the breed mean over the same period of time.

Breed Specific Statistics for Flatcoated Retriever
(Data collected 1st November 1999 to 31st October 2014)

Number scored in 15 years: 1501 Range: 0-74

15 yr median: 8 5 yr median: 7

Health reporting

Finally, as I am sure you are aware, one of the main aims of the Society health sub-committee is to monitor the overall health of the breed, this can only be done with help from the membership. I regularly see reports of health conditions or illness in Flatcoats on social media but unless these incidences are reported to us by the owners we cannot include them in our monitoring process. With accurate data and evidence we can instigate further investigation or research into the diseases and conditions that affect the breed should it be thought necessary. Health report forms are available to download from the Society website. Thank you to those that have sent report forms during the last year.

Liz Branscombe Dip AVN(Surgical) RVN

27th March 2016