

As one of the two the Breed Health Coordinator's I have been in touch with Mike Starkey Head of Molecular Oncology at the Animal Health Trust.

Below is an extract from an email he sent to me, please feel free to share and if you have any questions feel free to contact me.

Lynda Heron – Breed Health Co-Ordinator

for Northumberland and Durham Labrador Retriever Club

(Contact: brigburn@gmail.com)

“The research study on mast cell tumours is going very well, but we still need to collect further samples.

From a study involving DNA samples from 166 Labradors with a mast cell tumour and 193 unaffected Labradors (of at least 7 years of age), we believe that we have identified a common inherited genetic risk factor for mast cell tumours in Labradors.

In our study, the risk factor was associated with a 1.7 x increased risk of developing a mast cell tumour, and a quarter of all the dogs in our study carried 2 copies of the risk factor.

We would now like to screen a larger number (500) of both Labradors with a mast cell tumour (and/or who have previously had a confirmed mast cell tumour removed), and unaffected Labradors (of at least 7 years of age) to confirm the frequency of the genetic risk factor in Labradors and the increased risk associated with the risk factor.

In regard to Labradors affected by a mast cell tumour, we are particularly interested in collecting samples from Labradors that have/have had a Grade III mast cell tumour, because we would like to investigate whether the genetic risk factor that we have identified is associated with an increased risk of developing aggressive mast cell tumours.

I would be very happy to write an update for the Labrador Breed Council website, but to summarise we are looking to collect the following samples:

- **Cheek swabs from Labradors that are at least 7 years of age and have never had any form of cancer**
- **Cheek swabs from Labradors (of any age) that have/have had a mast cell tumour (confirmed by histopathology)**
- **Biopsies (5mm³-sized pieces) of mast cell tumours surgically removed from Labradors**

Although we are committed to continuing with the research study, the Animal Health Trust is a charity and at the present time we have no dedicated funding for the research. Consequently, we have no option but to ask a Labrador owner who wishes to submit a sample for a donation (£3 for 1 cheek swab kit, and £5 for 1 tube of the special preservative in which to collect a mast cell tumour biopsy) to cover the costs of the sample collection materials. Labrador owners can request cheek swab kits and tubes of preservative by contacting us by E-mail to oncologyres@aht.org.co.uk, or by telephoning 01638 751000 ext. 1214.

Beyond the genetic risk factor that we have identified, we strongly suspect that there are other inherited genetic risk factors for mast cell tumours in Labradors and we would like to screen for these using an exciting new technique called 'whole genome sequencing'.

This was the subject of a letter written in Dec 2016 (please see attached).

As you will gather from what I have written above, we have made great progress in the last 18 months. However, we would still like to use whole genome sequencing to screen for other inherited genetic risk factors for mast cell tumours in Labradors, and it would still be helpful to know if the Labrador Retriever Breed Council would be interested in offering financial support for the endeavour."

With regard to payments for kits people can use the donation page of the AHT website, single donation, which is this page:

<https://www.donate.aht.org.uk/one-off-payment.aspx?a=1>

go down to the box where it asks: "I would like my donation to go specifically to:" and select: "Cancer Research" then go down to:

· "Please enter any comments you may wish to make:" and type a clear reference in the comment box that enables the AHT to identify it as a Labrador Mast Cell Swab Kit /donation Appeal 2018.

Mike Starkey
Head of Molecular Oncology
Animal Health Trust.