

Animal Health Trust/ Kennel Club Give a Dog a Genome (GDG) Project Updates

October 2017

We have been advised by the GDG team that they have now reviewed the health concerns we summarised for the Flatcoated Retriever and collated the information. For each condition they have considered a number of factors including:

- Is it a particular concern for the breed?
- Is it highly prevalent in the breed?
- Is there any existing scientific (genetic or clinical) evidence?
- Is it relevant to any of our current areas of interest?
- Is it relevant to the work being conducted by other scientists?
- Is sequencing of a single dog likely to be beneficial or helpful in any way?

After assessing all of the evidence available the team has decided that it will be most useful to sequence the whole genome of a dog with Histiocytic Sarcoma. A DNA sample from a suitable dog has been collected and the sequencing process will now take place.

Dec 2017

The sequencing is expected to take up to 8 weeks to complete, after which the data will be processed and analysed. The volume of data generated for each individual sample is extremely large and takes 3-4 days to download and process. The sequence data may also be shared with other scientists as the team at the Canine Genetics Centre deem necessary or helpful. Additional analysis of the data to attempt to identify any variants that contribute to Histiocytic sarcoma will take far longer. Please be aware that it is entirely possible that the researchers will not be able to identify any variants that contribute to this condition. However, even if this is the case, the GDG team have said the data still can and will be used in investigations of inherited disease in other breeds.

2018- No further breed specific updates have been received from the GDG team so we conclude no breed specific variants that contribute to histiocytic sarcoma have been identified to date.

Liz Branscombe Dip AVN(Surgical) RVN
KC Breed Health Coordinator