**The GENDEER Study**

(GENDEER stands for GENetic associations with dilated cardiomyopathy in DEERhounds)

Deerhounds are gently natured dogs with big hearts (literally and figuratively) and just like many other large breed dogs are predisposed to developing dilated cardiomyopathy. Dilated cardiomyopathy is a disease of the heart muscle, where the ventricle (the main pumping chamber in the heart) stretches and thins, or dilates, so can't pump blood as well as a healthy heart can. The disease seems to affect Deerhounds greatly as cardiac causes are the main cause of death in Deerhounds. The latest study performed by Dr Emily Dutton with great help from Dr Sarah Helps and many members of the breed club, showed that approximately one in five Deerhounds are affected by dilated cardiomyopathy. It also showed that many Deerhounds affected by the disease also develop arrhythmias, i.e. irregular heart rhythms. They have also managed to establish reference intervals (normal ranges) of heart measurements for the breed using echocardiography, or cardiac ultrasound. This important information will improve the way we diagnose and treat the disease in Deerhounds. Unfortunately, we still have limited data on many other aspects of this fatal disease which is why further studies on the breed are necessary.

Last September the Cheshire Cardiology team had the opportunity to attend the annual Deerhound show in Telford. Two cardiology specialists: Dr Emily Dutton and Dr Liz Bode, myself; cardiology intern Ewelina, and three nurses: Jasmyn, Tom and Monique, worked hard to collect as much data as possible in the short period of time. We managed to scan and blood sample 17 dogs in one day for the study. Surplus blood was collected and stored for the new “GENDEER Study” which will help identify genetic predispositions for dilated cardiomyopathy in affected Deerhounds. In this way we may be able to find the genes responsible for passing on the disease although we fully expect it to be complicated. If a genetic cause is found, then this may make an impact on the breeding process and possibly help reduce the number of dogs affected by the disease in the future.

Up until writing this article we have scanned 121 dogs over 8 years. We have collected blood samples from 44 Deerhounds and 101 cheek swabs for future DNA analysis. With help from the geneticists, we are looking forward to seeing the results of the genetic analyses, with the aim of publishing the results of the study. We all very much enjoyed our stay in Telford Hotel, the company of these lovely natured dogs, friendly breed club members and tasty food. We are also looking forward to meeting again at the next show and collecting more data for our research.

Ewelina Korzybska MRCVS, Cardiology Intern

If you would like to help or take part in our study, please see our website - http://www.deerhoundgenetics.com/index.html