

# CANINE HYPOTHYROIDISM GENETIC MARKER STUDY

## INFORMED CONSENT

Hypothyroid disease is the commonest endocrinopathy of dogs, and represents a significant veterinary problem throughout the world. Definitive diagnosis is difficult since only a comprehensive panel of thyroid function tests is able to identify most but not all affected dogs. The disease is characterized by low levels of thyroid hormones, but these may result from other diseases, although primary hypothyroid disease is characterized in nearly all cases by the presence of autoantibodies to thyroglobulin. It is thought that as much as 80% of dogs with familial hypothyroid disease have these autoantibodies.

This form of familial canine hypothyroidism is very similar to Hashimoto's disease in humans, which is an autoimmune disease shown to be associated with human MHC genes. If a similar association with canine MHC genes can be shown in hypothyroid dogs, these could provide useful genetic markers for selective breeding to reduce the disease incidence in pure-bred dogs. There is a clear genetic component to canine hypothyroid disease, particularly in closely inbred lines, and an increasing number of breeds (and their cross-breeds) are known to be more susceptible. In contrast, hypothyroid disease is less common in mongrels and outbred dogs like Alaskan huskies. The proposed study could lead to a better understanding of this condition and offer new approaches to its reduction in these susceptible breeds.

1. I have read and understood the above paragraphs explaining the collaborative United Kingdom/United States study of genetic markers for canine autoimmune thyroiditis which leads to hypothyroidism.
2. I appreciate that in order to advance our understanding of animal diseases there is a need to determine the genetic factors that identify a particular hereditary condition.
3. I understand that any genetic tests relating to my animal will not provide specific information about his/her condition but will contribute to the general body of knowledge about the disease in dogs. I realize that no specific information regarding genetic tests on my animal will be reported back to me.
4. I agree to DNA being extracted from blood taken from my animal for the agreed clinical investigations and that this blood is surplus to requirements for clinical tests. I agree that this will be used entirely for research purposes. I give consent for the material to be stored and made available to *bona fide* scientists in the field of animal disease and genetics.
5. I understand that all information I give will be held in strict confidence and the source of the archived DNA will not be divulged to any third party unconnected with the research project (e.g. insurance companies)
6. I understand that this research may not benefit my animal directly, but in the future may be of benefit to other animals.
7. I understand that the custodianship of the DNA resides with the University of Liverpool but I retain the right to remove my animal's sample from this archive in the future if so wished.

Name of Animal Owner (Guardian) .....

Address .....

Phone # ..... FAX # ..... E-mail .....

Signed .....

Date.....