



Information Sheet

In October 2004, the dog genome sequence was made public following academic research funded centrally by the National Institutes of Health. This now provides a backbone for detailed research studies to investigate the wide range of traits and characteristics exhibited by dogs. To determine the underlying genetic factors in a range of illnesses, WALTHAM®, the world's leading authority on pet care and nutrition, is undertaking a large sample collection for its research programs. Samples will be stored as DNA in a library and also made available to research groups at Universities and Veterinary Schools around the world.

Cancer is now the leading cause of disease-related death in dogs. All common cancers seen in dogs show specific breed predispositions, indicating that inherited genetic aberrations are extremely important risk factors in the development and progression of the disease. The DNA library will be utilised in genomic studies to determine the genetic risk factors that underlie the development of cancer in dogs. This will then pave the way for understanding the molecular factors involved and subsequently the development of novel or improved treatments that will enhance the survival of dogs with this cancer. Mast cell tumours (MCTs), also called mastocytoma or mast cell sarcoma are amongst the most common skin tumour in the dog, accounting for 20% of all skin cancers. MCTs can develop anywhere on the body surface, most common sites of development are the skin of the trunk, perineal area or legs, and are seen in dogs of any age (mean 9 years old). MCTs may be relatively innocent or aggressively malignant either way both lifespan and quality of life are affected. Treatment invariably involves surgical removal but with no highly successful chemotherapy protocol available, the disease can recur or metastasize years after diagnosis. **Pugs show a higher than average incidence of MCT and are considered to be at higher risk**, alongside Boston Terrier, Shar-Pei, Staffordshire Bull Terrier, and Rhodesian Ridgebacks.

We need blood samples from healthy dogs and affected individuals, from which we can extract DNA. We would like to collect DNA from 150 affected dogs and 150 controls from each predisposed breed. The affected can be any age but the controls need to be 10 years of age or older. Collection will be quick and free of charge, donation of your dogs' blood will remain strictly confidential and any publication of results using these materials, will protect the anonymity of the donor. Owners will benefit from having their dog's DNA added to a library so that if it is ever needed in the future -e.g., for identification purposes or for determining genetic predisposition- it will be accessible to the owner. Owners of the dogs are asked to provide the dog's registration number (if available and to answer a brief questionnaire, dealing with the environmental/health history of the dog, in the hope of finding additional cancer risk factors.

For more information or to participate; please e-mail mhuslig@k9genes.com or call (512) 858-7939.