

Public Abstract

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Title:MOLECULAR GENETIC STUDIES OF CANINE INHERITED DISEASES INCLUDING SAMS, NEURONAL CEROID LIPOFUSCINOSIS AND DILATED CARDIOMYOPATHY

The genome of the domestic dog is an ideal tool to study inherited diseases in dogs. Dogs are the ideal model organism within which to study inherited diseases, as they are a higher-mammal and share many similar genes and gene functions. We sequenced the genomes of 145 dogs representing 69 different breeds and discovered, among other things; the genetic etiology of Spinocerebellar Ataxia with Myokymia and Seizures in Russell-Group Terriers, Neuronal Ceroid Lipofuscinosis in Golden Retrievers and Dilated Cardiomyopathy in Standard Schnauzers. We utilized different techniques to discover these mutations and suggest other possible means of discovering causal mutations in the future.