

Doberman Diversity Project

Overview

Worldwide, the Dobermann/Doberman Pinscher (Doberman) breed has reached the critical point where a majority of dogs die prematurely and/or suffer from diseases that are wholly or significantly genetically based. The Dobermann Diversity Project (DDP), a non-profit Scientific Corporation, was formed to improve the genetic health and longevity of the breed by using established and emerging canine genetics and conservation science.

Mission Statement

The Doberman Diversity Project aims to reduce the incidence of partially and wholly heritable diseases by addressing the depression of the overall genetic diversity of the Doberman breed via comprehensive genetic testing and analysis, development of an evidence-based DDP Breeding Protocol, establishment of a Partner Breeder program, development of online Breeder's Tools, and long-term tracking of results to measure the effectiveness of said protocol.

Goals

1. **Establish/Obtain a DNA Testing Panel and Genetic Database that Will Support Breeding Efforts to Reduce Loss of Genetic Diversity and Improve Health:** Work with Universities and Testing Labs to support the development of an affordable panel of

single nucleotide polymorphism (SNP) markers that will measure the genetic diversity of each dog tested, and the degree of that dog's Internal Relatedness (IR -- multilocus heterozygosity) across the genome and in the Dog Leukocyte Antigen (DLA) class I and II regions. This test panel will be central to the DDP.

2. **Make Available to Doberman Owners and Breeders an Affordable Comprehensive Online Report that Analyzes Individual Dogs' DNA.** This Report will:
 - a. Utilize the newly developed patented research grade genetic test developed by Dr. Boyko of Cornell University to generate a report that will detail:
 - i. A given dog's genetic diversity (degree of homozygosity and specifics about where that homozygosity is located within the genetic profile);
 - ii. Compare that dog's genetic diversity to the overall diversity found in the Doberman breed; and
 - iii. Include all known genetic tests for the Doberman breed to be included with the DPP genetic testing profile results (e.g., PDK4, etc.);
 - b. Create easy-to-understand graphic explanations of the meaning and value of these test results that explain how breeders and buyers can best utilize this information;
3. **Develop a DDP Breeding Protocol.** The DDP Breeding Protocol will clearly define the parameters and goals of an evidence-based breeding program engineered to minimize the occurrence of genetic diseases and maximize the genetic health and longevity of the subject litter and preserve the genetic diversity of the breed as a whole;
4. **Develop Online Breeder Tools Accessible through the DDP.** DDP Breeding Tools will permit breeders to experiment with "virtual matings" and generate detail on the

probable genetic diversity and health (and measure compliance with the DDP Breeding Protocol) of proposed litters;

5. **Develop a Partner Breeder Program.** This program will work with carefully selected DDP Partner Breeders who share the goal of producing puppies with a documented, progressive reduction in heritable disorders through the selection and breeding of genetically diverse and health tested dogs, in a manner that complies with the DDP Breeding Protocol.
6. **Develop Standards and/or a Litter Scoring System.** The DDP Litter Scoring System will grade virtual and actual litters, to aid breeders in their mating decisions and support puppy buyers in their decision-making process;
7. **Develop a DDP Recognition Program.** The DDP Recognition Program will:
 - a. Recognize and promote breeders who meet or exceed the standards of DDP's Breeding Protocols, and
 - b. Create and distribute educational information/materials targeting Doberman breeders and buyers worldwide and in multiple languages.
8. **Perform Ongoing Data Collection and Program Evaluation.** Evaluate DDP Partner litters against DDP goals and adjust DDP Breeding Protocol as needed to support the Project's Mission Statement, and ensure continued learning, data collection, measurement of progress, and information sharing.