# DNA Test Report

**Melissa Miller**
OWNER NAME

**Canine Genetic Health Screen**
TEST

**May 24th, 2024**
TEST DATE

## Dog Information

| | |
|---|---|
| **Penny**<br>NAME | **Female**<br>SEX |
| **Poodle (Small)**<br>GENETIC BREED | --<br>DATE OF BIRTH |
| **American Kennel Club (AKC)**<br>REGISTRATION | n/a<br>MICROCHIP |

## BREED HEALTH TESTS

To ensure completeness, this report includes all carrier and at risk results for this dog.

| DISEASE | GENE | GENOTYPE | RESULT | TESTING RECOMMENDED BY |
|---|---|---|---|---|
| **Degenerative Myelopathy, DM** | SOD1A | GG | Clear | (seal) |
| **Neonatal Encephalopathy with Seizures, NEWS** | ATF2 | TT | Clear | (seal) |
| **Osteochondrodysplasia, Skeletal Dwarfism** | SLC13A1 | NN | Clear | (seal) |
| **Progressive Retinal Atrophy, prcd** | PRCD Exon 1 | GG | Clear | (seal) |
| **Von Willebrand Disease Type I, Type I vWD** | VWF | GG | Clear | (seal) |
| **Chondrodystrophy and Intervertebral Disc Disease, CDDY/IVDD, Type I IVDD** | FGF4 - chr12 | N/I | 1 Variant | (embark logo) |
| **GM2 Gangliosidosis** | HEXB (Exon 3) | NN | Clear | (embark logo) |
| **Copper Toxicosis (Accumulating)** | ATP7B | GA | 1 Variant | |

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## INBREEDING AND DIVERSITY

| Genetic Diversity | RESULT | GENETIC RESULT |
|---|---|---|
| **Coefficient Of Inbreeding** | | **7%** |
| **MHC Class II - DLA DRB1** | | **High Diversity** |
| **MHC Class II - DLA DQA1 and DQB1** | | **High Diversity** |

## Dog Information

**Penny**
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## TRAIT TESTS (1/3)

| Coat Color | RESULT | GENETIC RESULT |
|---|---:|---|
| **E Locus (MC1R)** | **No dark hairs anywhere** | ee |
| **K Locus (CBD103)** | **Not expressed** | $K^Bk^y$ |
| **Intensity Loci** | **Any pigmented hair likely apricot or red** | **Intense Red Pigmentation** |
| **A Locus (ASIP)** | **Not expressed** | $a^ta$ |
| **D Locus (MLPH)** | **Not expressed** | DD |
| **Cocoa (HPS3)** | **No co alleles, not expressed** | NN |
| **B Locus (TYRP1)** | **Likely black colored nose/feet** | BB |
| **Saddle Tan (RALY)** | **Not expressed** | II |
| **S Locus (MITF)** | **Likely to have little to no white in coat** | SS |
| **M Locus (PMEL)** | **No merle alleles** | mm |
| **R Locus (USH2A)** | **Likely no impact on coat pattern** | rr |

## Dog Information

**Penny**
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# TRAIT TESTS (2/3)

| Coat Color | RESULT | GENETIC RESULT |
|---|---|---|
| **H Locus (Harlequin)** | No harlequin alleles | hh |
| **Panda White Spotting** | Not expected to display Panda pattern | NN |

| Other Coat Traits | RESULT | GENETIC RESULT |
|---|---|---|
| **Furnishings (RSPO2)** | Likely furnished (mustache, beard, and/or eyebrows) | FF |
| **Coat Length (FGF5)** | Likely long coat | LhLh |
| **Shedding (MC5R)** | Likely light shedding | CC |
| **Coat Texture (KRT71)** | Likely curly coat | TT |
| **Hairlessness (FOXI3)** | Very unlikely to be hairless | NN |
| **Hairlessness (SGK3)** | Very unlikely to be hairless | NN |
| **Oculocutaneous Albinism Type 2 (SLC45A2)** | Likely not albino | NN |

| Other Body Features | RESULT | GENETIC RESULT |
|---|---|---|
| **Muzzle Length (BMP3)** | Likely medium or long muzzle | CC |
| **Tail Length (T)** | Likely normal-length tail | CC |

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# TRAIT TESTS (3/3)

| Other Body Features | RESULT | GENETIC RESULT |
|---|---|---|
| **Hind Dewclaws (LMBR1)** | Unlikely to have hind dew claws | **CC** |
| **Chondrodysplasia (Chr. 18 FGF4 Retrogene)** | Not indicative of chondrodysplasia (normal leg length) | **NN** |
| **Blue Eye Color (ALX4)** | Less likely to have blue eyes | **NN** |
| **Back Muscling & Bulk, Large Breed (ACSL4)** | Likely normal muscling | **CC** |

| Body Size | RESULT | GENETIC RESULT |
|---|---|---|
| **Body Size (IGF1)** | Smaller | **II** |
| **Body Size (IGFR1)** | Intermediate | **GA** |
| **Body Size (STC2)** | Intermediate | **TA** |
| **Body Size (GHR - E191K)** | Intermediate | **GA** |
| **Body Size (GHR - P177L)** | Larger | **CC** |

| Performance | RESULT | GENETIC RESULT |
|---|---|---|
| **Altitude Adaptation (EPAS1)** | Normal altitude tolerance | **GG** |
| **Appetite (POMC)** | Normal food motivation | **NN** |