

## Dog Information

|                                                       |                                  |
|-------------------------------------------------------|----------------------------------|
| Roxanne Josephine<br>NAME                             | Female<br>SEX                    |
| Golden Retriever<br>GENETIC BREED                     | July 26th, 2021<br>DATE OF BIRTH |
| American Kennel Club (AKC) SS28823709<br>REGISTRATION | n/a<br>MICROCHIP                 |

Jessica Lawson  
OWNER NAME

Canine Genetic Health Screen  
TEST

March 4th, 2023  
TEST DATE

## BREED HEALTH TESTS

| DISEASE                                                 | GENE                      | GENOTYPE     | RESULT       | TESTING<br>RECOMMENDED BY                                                             |
|---------------------------------------------------------|---------------------------|--------------|--------------|---------------------------------------------------------------------------------------|
| Degenerative Myelopathy, DM                             | SOD1(A)                   | GG           | Clear        |    |
| Golden Retriever Progressive Retinal Atrophy 1, GR-PRA1 | SLC4A3 Exon 16            | NN           | Clear        |    |
| Golden Retriever Progressive Retinal Atrophy 2, GR-PRA2 | TTC8 Exon 8               | NN           | Clear        |    |
| Ichthyosis, ICH1                                        | PNPLA1 (Exon 8)           | ACC/TACTACTA | 1<br>Variant |  |
| Muscular Dystrophy                                      | DMD                       | AA           | Clear        |  |
| Progressive Retinal Atrophy, prcd                       | PRCD Exon 1               | GG           | Clear        |  |
| Congenital Myasthenic Syndrome, CMS                     | COLQ                      | GG           | Clear        |  |
| Dystrophic Epidermolysis Bullosa                        | COL7A1 (Exon 68)          | GG           | Clear        |  |
| Neuronal Ceroid Lipofuscinosis 5, NCL 5                 | CLN5 (Exon 4<br>Deletion) | NN           | Clear        |  |
| Osteogenesis Imperfecta, Brittle Bone Disease           | COL1A1 (Exon 18)          | GG           | Clear        |  |
| Retina Dysplasia and/or Optic Nerve Hypoplasia          | SIX6 Exon 1               | CC           | Clear        |  |

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## INBREEDING AND DIVERSITY

| Genetic Diversity                | RESULT | GENETIC<br>RESULT |
|----------------------------------|--------|-------------------|
| Coefficient Of Inbreeding        |        | 15%               |
| MHC Class II - DLA DRB1          |        | No<br>Diversity   |
| MHC Class II - DLA DQA1 and DQB1 |        | No<br>Diversity   |

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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 <sup>B</sup> k <sup>Y</sup> |
| Intensity Loci LINKAGE  | Any pigmented hair likely yellow or tan   | Intermediate Red Pigmentation |
| A Locus (ASIP)          | Not expressed                             | a <sup>t</sup> a              |
| 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                             | NI                            |
| S Locus (MITF)          | Likely to have little to no white in coat | SS                            |
| M Locus (PMEL)          | No merle alleles                          | mm                            |
| R Locus (USH2A) LINKAGE | Likely no impact on coat pattern          | rr                            |

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## TRAIT TESTS (2/3)

| Coat Color          | RESULT               | GENETIC RESULT |
|---------------------|----------------------|----------------|
| H Locus (Harlequin) | No harlequin alleles | hh             |

| Other Coat Traits                                | RESULT                                                   | GENETIC RESULT |
|--------------------------------------------------|----------------------------------------------------------|----------------|
| Furnishings (RSPO2) LINKAGE                      | Likely unfurnished (no mustache, beard, and/or eyebrows) | II             |
| Coat Length (FGF5)                               | Likely long coat                                         | TT             |
| Shedding (MC5R)                                  | Likely light shedding                                    | TT             |
| Hairlessness (FOXI3) LINKAGE                     | Very unlikely to be hairless                             | NN             |
| Hairlessness (SGK3)                              | Very unlikely to be hairless                             | NN             |
| Oculocutaneous Albinism Type 2 (SLC45A2) LINKAGE | Likely not albino                                        | NN             |
| Coat Texture (KRT71)                             | Likely straight coat                                     | CC             |

| Other Body Features   | RESULT                          | GENETIC RESULT |
|-----------------------|---------------------------------|----------------|
| Muzzle Length (BMP3)  | Likely medium or long muzzle    | CC             |
| Tail Length (T)       | Likely normal-length tail       | CC             |
| Hind Dewclaws (LMBR1) | Unlikely to have hind dew claws | CC             |

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## TRAIT TESTS (3/3)

| Other Body Features                       | RESULT                        | GENETIC RESULT |
|-------------------------------------------|-------------------------------|----------------|
| Blue Eye Color (ALX4) LINKAGE             | 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)                         | Larger                        | GG             |
| Body Size (STC2)                          | Larger                        | TT             |
| 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) LINKAGE                   | Normal food motivation        | NN             |