
CASH

Veterinary Report

Test Date: September 25th, 2021

Owner Name: Randall K.

Dog Name: Cash

Sex: Male (intact)

Date of birth: 10/31/20

Breed type: purebred

Breed: Miniature poodle

Breed registration: American Kennel Club (AKC)

Microchip: N/A

Genetic summary


Genetic breed identification:

Poodle (Small)

Predicted adult weight: **14 lbs**

Calculated from 17 size genes.

Breed mix:


 **Poodle (Small): 100.0%**

Genetic age: **22 human years**

Human equivalent age based on size, date of birth provided, and other factors

Health Report

Chondrodystrophy and Intervertebral Disc Disease, CDDY/IVDD, Type I IVDD (FGF4 retrogene - CFA12)

 Cash inherited one copy of the variant we tested. Cash is at increased risk for Type I IVDD.

How to interpret this result

Cash has one copy of an FGF4 retrogene on chromosome 12. In some breeds such as Beagles, Cocker Spaniels, and Dachshunds (among others) this variant is found in nearly all dogs. While those breeds are known to have an elevated risk of IVDD, many dogs in those breeds never develop IVDD. For mixed breed dogs and purebreds of other breeds where this variant is not as common, risk for Type I IVDD is greater for individuals with this variant than for similar dogs.

What is Chondrodystrophy and Intervertebral Disc Disease, CDDY/IVDD, Type I IVDD?

Type I Intervertebral Disc Disease (IVDD) is a back/spine issue that refers to a health condition affecting the discs that act as cushions between vertebrae. With Type I IVDD, affected dogs can have a disc event where it ruptures or herniates towards the spinal cord. This pressure on the spinal cord causes neurologic signs which can range from a wobbly gait to impairment of movement.

Chondrodystrophy (CDDY) refers to the relative proportion between a dog's legs and body, wherein the legs are shorter and the body longer. There are multiple different variants that can cause a markedly chondrodystrophic appearance as observed in Dachshunds and Corgis. However, this particular variant is the only one known to also increase the risk for IVDD.

When signs & symptoms develop in affected dogs

Signs of CDDY are recognized in puppies as it affects body shape. IVDD is usually first recognized in adult dogs, with breed specific differences in age of onset.

Signs & symptoms

Research indicates that dogs with one or two copies of this variant have a similar risk of developing IVDD. However, there are some breeds (e.g. Beagles and Cocker Spaniels, among others) where this variant has been passed down to nearly all dogs of the breed and most do not show overt clinical signs of the disorder. This suggests that there are other genetic and environmental factors (such as weight, mobility, and family history) that contribute to an individual dog's risk of developing clinical IVDD. Signs of IVDD include neck or back pain, a change in your dog's walking pattern (including dragging of the hind limbs), and paralysis. These signs can be mild to severe, and if your dog starts exhibiting these signs, you should schedule an appointment with your veterinarian for a diagnosis.

How vets diagnose this condition

For CDDY, dogs with one copy of this variant may have mild proportional differences in their leg length. Dogs with two copies of this variant will often have visually longer bodies and shorter legs. For IVDD, a neurological exam will be performed on any dog showing suspicious signs. Based on the

result of this exam, radiographs to detect the presence of calcified discs or advanced imaging (MRI/CT) to detect a disc rupture may be recommended.

How this condition is treated

IVDD is treated differently based on the severity of the disease. Mild cases often respond to medical management which includes cage rest and pain management, while severe cases are often treated with surgical intervention. Both conservative and surgical treatment should be followed up with rehabilitation and physical therapy.

Actions to take if your dog is affected

- Follow veterinary advice for diet, weight management, and daily exercise. Overweight dogs and those with insufficient exercise are thought to be at higher risk of developing clinical disease.
- Ramps up to furniture, avoiding flights of stairs, and using a harness on walks will also help minimize some of the risk of an IVDD event by reducing stress on the back.
- In breeds where this variant is extremely common, this genetic health result should not be a deciding factor when evaluating a dog for breeding or adoption purposes.

Breed-Relevant Conditions Tested



Cash did not have the variants that we tested for, that are relevant to his breed:

- ✓ Von Willebrand Disease Type I, Type I vWD (VWF)
- ✓ GM2 Gangliosidosis (HEXB, Poodle Variant)
- ✓ Neonatal Encephalopathy with Seizures, NEWS (ATF2)
- ✓ Osteochondrodysplasia, Skeletal Dwarfism (SLC13A1, Poodle Variant)

Additional Conditions Tested



Cash did not have the variants that we tested for, in the following conditions that the potential effect on dogs with Cash's breed may not yet be known.

- ✓ MDR1 Drug Sensitivity (ABCB1)
- ✓ P2Y12 Receptor Platelet Disorder (P2Y12)
- ✓ Factor IX Deficiency, Hemophilia B (F9 Exon 7, Terrier Variant)
- ✓ Factor IX Deficiency, Hemophilia B (F9 Exon 7, Rhodesian Ridgeback Variant)
- ✓ Factor VII Deficiency (F7 Exon 5)
- ✓ Factor VIII Deficiency, Hemophilia A (F8 Exon 10, Boxer Variant)
- ✓ Factor VIII Deficiency, Hemophilia A (F8 Exon 11, German Shepherd Variant 1)
- ✓ Factor VIII Deficiency, Hemophilia A (F8 Exon 1, German Shepherd Variant 2)
- ✓ Thrombopathia (RASGRP1 Exon 5, Basset Hound Variant)
- ✓ Thrombopathia (RASGRP1 Exon 8, Landseer Variant)
- ✓ Thrombopathia (RASGRP1 Exon 5, American Eskimo Dog Variant)
- ✓ Von Willebrand Disease Type III, Type III vWD (VWF Exon 4, Terrier Variant)
- ✓ Von Willebrand Disease Type III, Type III vWD (VWF Exon 7, Shetland Sheepdog Variant)
- ✓ Von Willebrand Disease Type II, Type II vWD (VWF, Pointer Variant)
- ✓ Canine Leukocyte Adhesion Deficiency Type I, CLAD I (ITGB2, Setter Variant)
- ✓ Canine Leukocyte Adhesion Deficiency Type III, CLAD III (FERMT3, German Shepherd Variant)
- ✓ Congenital Macrothrombocytopenia (TUBB1 Exon 1, Cairn and Norfolk Terrier Variant)
- ✓ Canine Elliptocytosis (SPTB Exon 30)
- ✓ Glanzmann's Thrombasthenia Type I (ITGA2B Exon 13, Great Pyrenees Variant)
- ✓ Glanzmann's Thrombasthenia Type I (ITGA2B Exon 12, Otterhound Variant)

Additional Conditions Tested

- ✓ **May-Hegglin Anomaly (MYH9)**
- ✓ **Prekallikrein Deficiency (KLKB1 Exon 8)**
- ✓ **Pyruvate Kinase Deficiency (PKLR Exon 5, Basenji Variant)**
- ✓ **Pyruvate Kinase Deficiency (PKLR Exon 7, Labrador Retriever Variant)**
- ✓ **Pyruvate Kinase Deficiency (PKLR Exon 7, Pug Variant)**
- ✓ **Pyruvate Kinase Deficiency (PKLR Exon 7, Beagle Variant)**
- ✓ **Pyruvate Kinase Deficiency (PKLR Exon 10, Terrier Variant)**
- ✓ **Trapped Neutrophil Syndrome, TNS (VPS13B)**
- ✓ **Ligneous Membranitis, LM (PLG)**
- ✓ **Platelet Factor X Receptor Deficiency, Scott Syndrome (TMEM16F)**
- ✓ **Methemoglobinemia (CYB5R3)**
- ✓ **Congenital Hypothyroidism (TPO, Tenterfield Terrier Variant)**
- ✓ **Congenital Hypothyroidism (TPO, Rat, Toy, Hairless Terrier Variant)**
- ✓ **Complement 3 Deficiency, C3 Deficiency (C3)**
- ✓ **Severe Combined Immunodeficiency, SCID (PRKDC, Terrier Variant)**
- ✓ **Severe Combined Immunodeficiency, SCID (RAG1, Wetterhoun Variant)**
- ✓ **X-linked Severe Combined Immunodeficiency, X-SCID (IL2RG Exon 1, Basset Hound Variant)**
- ✓ **X-linked Severe Combined Immunodeficiency, X-SCID (IL2RG, Corgi Variant)**
- ✓ **Progressive Retinal Atrophy, rcd1 (PDE6B Exon 21, Irish Setter Variant)**
- ✓ **Progressive Retinal Atrophy, rcd3 (PDE6A)**

Additional Conditions Tested

- ✓ Progressive Retinal Atrophy, CNGA (CNGA1 Exon 9)
- ✓ Progressive Retinal Atrophy, PRA1 (CNGB1)
- ✓ Progressive Retinal Atrophy (SAG)
- ✓ Golden Retriever Progressive Retinal Atrophy 1, GR-PRA1 (SLC4A3)
- ✓ Golden Retriever Progressive Retinal Atrophy 2, GR-PRA2 (TTC8)
- ✓ Progressive Retinal Atrophy, crd1 (PDE6B, American Staffordshire Terrier Variant)
- ✓ Progressive Retinal Atrophy, crd4/cord1 (RPGRIP1)
- ✓ X-Linked Progressive Retinal Atrophy 1, XL-PRA1 (RPGR)
- ✓ Progressive Retinal Atrophy, PRA3 (FAM161A)
- ✓ Collie Eye Anomaly, Choroidal Hypoplasia, CEA (NHEJ1)
- ✓ Day Blindness, Cone Degeneration, Achromatopsia (CNGB3 Exon 6, German Shorthaired Pointer Variant)
- ✓ Achromatopsia (CNGA3 Exon 7, German Shepherd Variant)
- ✓ Achromatopsia (CNGA3 Exon 7, Labrador Retriever Variant)
- ✓ Autosomal Dominant Progressive Retinal Atrophy (RHO)
- ✓ Canine Multifocal Retinopathy, cmr1 (BEST1 Exon 2)
- ✓ Canine Multifocal Retinopathy, cmr2 (BEST1 Exon 5, Coton de Tulear Variant)
- ✓ Canine Multifocal Retinopathy, cmr3 (BEST1 Exon 10 Deletion, Finnish and Swedish Lapphund, Lapponian Herder Variant)
- ✓ Primary Open Angle Glaucoma (ADAMTS10 Exon 9, Norwegian Elkhound Variant)
- ✓ Primary Open Angle Glaucoma (ADAMTS10 Exon 17, Beagle Variant)
- ✓ Primary Open Angle Glaucoma (ADAMTS17 Exon 11, Basset Fauve de Bretagne Variant)

Additional Conditions Tested

- ✓ **Primary Open Angle Glaucoma and Primary Lens Luxation (ADAMTS17 Exon 2, Chinese Shar-Pei Variant)**
- ✓ **Goniodysgenesis and Glaucoma, Pectinate Ligament Dysplasia, PLD (OLFM3)**
- ✓ **Hereditary Cataracts, Early-Onset Cataracts, Juvenile Cataracts (HSF4 Exon 9, Australian Shepherd Variant)**
- ✓ **Primary Lens Luxation (ADAMTS17)**
- ✓ **Congenital Stationary Night Blindness (RPE65, Briard Variant)**
- ✓ **Congenital Stationary Night Blindness (LRIT3, Beagle Variant)**
- ✓ **Macular Corneal Dystrophy, MCD (CHST6)**
- ✓ **2,8-Dihydroxyadenine Urolithiasis, 2,8-DHA Urolithiasis (APRT)**
- ✓ **Cystinuria Type I-A (SLC3A1, Newfoundland Variant)**
- ✓ **Cystinuria Type II-A (SLC3A1, Australian Cattle Dog Variant)**
- ✓ **Cystinuria Type II-B (SLC7A9, Miniature Pinscher Variant)**
- ✓ **Hyperuricosuria and Hyperuricemia or Urolithiasis, HUU (SLC2A9)**
- ✓ **Polycystic Kidney Disease, PKD (PKD1)**
- ✓ **Primary Hyperoxaluria (AGXT)**
- ✓ **Protein Losing Nephropathy, PLN (NPHS1)**
- ✓ **X-Linked Hereditary Nephropathy, XLHN (COL4A5 Exon 35, Samoyed Variant 2)**
- ✓ **Autosomal Recessive Hereditary Nephropathy, Familial Nephropathy, ARHN (COL4A4 Exon 3, Cocker Spaniel Variant)**
- ✓ **Primary Ciliary Dyskinesia, PCD (CCDC39 Exon 3, Old English Sheepdog Variant)**
- ✓ **Primary Ciliary Dyskinesia, PCD (NME5, Alaskan Malamute Variant)**
- ✓ **Congenital Keratoconjunctivitis Sicca and Ichthyosiform Dermatitis, Dry Eye Curly Coat Syndrome, CKCSID (FAM83H Exon 5)**

Additional Conditions Tested

- ✓ X-linked Ectodermal Dysplasia, Anhidrotic Ectodermal Dysplasia, XHED (EDA Intron 8)
- ✓ Renal Cystadenocarcinoma and Nodular Dermatofibrosis, RCND (FLCN Exon 7)
- ✓ Canine Fucosidosis (FUCA1)
- ✓ Glycogen Storage Disease Type II, Pompe's Disease, GSD II (GAA, Finnish and Swedish Lapphund, Lapponian Herder Variant)
- ✓ Glycogen Storage Disease Type IA, Von Gierke Disease, GSD IA (G6PC, Maltese Variant)
- ✓ Glycogen Storage Disease Type IIIA, GSD IIIA (AGL, Curly Coated Retriever Variant)
- ✓ Mucopolysaccharidosis Type IIIA, Sanfilippo Syndrome Type A, MPS IIIA (SGSH Exon 6, Dachshund Variant)
- ✓ Mucopolysaccharidosis Type IIIA, Sanfilippo Syndrome Type A, MPS IIIA (SGSH Exon 6, New Zealand Huntaway Variant)
- ✓ Mucopolysaccharidosis Type VII, Sly Syndrome, MPS VII (GUSB Exon 5, Terrier Brasileiro Variant)
- ✓ Mucopolysaccharidosis Type VII, Sly Syndrome, MPS VII (GUSB Exon 3, German Shepherd Variant)
- ✓ Glycogen storage disease Type VII, Phosphofructokinase Deficiency, PFK Deficiency (PFKM, Whippet and English Springer Spaniel Variant)
- ✓ Glycogen storage disease Type VII, Phosphofructokinase Deficiency, PFK Deficiency (PFKM, Wachtelhund Variant)
- ✓ Lagotto Storage Disease (ATG4D)
- ✓ Neuronal Ceroid Lipofuscinosis 1, NCL 1 (PPT1 Exon 8, Dachshund Variant 1)
- ✓ Neuronal Ceroid Lipofuscinosis 2, NCL 2 (TPP1 Exon 4, Dachshund Variant 2)
- ✓ Neuronal Ceroid Lipofuscinosis, Cerebellar Ataxia, NCL4A (ARSG Exon 2, American Staffordshire Terrier Variant)
- ✓ Neuronal Ceroid Lipofuscinosis 5, NCL 5 (CLN5 Exon 4 SNP, Border Collie Variant)
- ✓ Neuronal Ceroid Lipofuscinosis 6, NCL 6 (CLN6 Exon 7, Australian Shepherd Variant)
- ✓ Neuronal Ceroid Lipofuscinosis 8, NCL 8 (CLN8 Exon 2, English Setter Variant)
- ✓ Neuronal Ceroid Lipofuscinosis 7, NCL 7 (MFSD8, Chihuahua and Chinese Crested Variant)

Additional Conditions Tested

- ✓ **Neuronal Ceroid Lipofuscinosis 8, NCL 8 (CLN8, Australian Shepherd Variant)**
- ✓ **Neuronal Ceroid Lipofuscinosis 10, NCL 10 (CTSD Exon 5, American Bulldog Variant)**
- ✓ **Neuronal Ceroid Lipofuscinosis 5, NCL 5 (CLN5 Exon 4 Deletion, Golden Retriever Variant)**
- ✓ **Adult-Onset Neuronal Ceroid Lipofuscinosis, NCL A, NCL 12 (ATP13A2, Tibetan Terrier Variant)**
- ✓ **Late-Onset Neuronal Ceroid Lipofuscinosis, NCL 12 (ATP13A2, Australian Cattle Dog Variant)**
- ✓ **GM1 Gangliosidosis (GLB1 Exon 15, Shiba Inu Variant)**
- ✓ **GM1 Gangliosidosis (GLB1 Exon 15, Alaskan Husky Variant)**
- ✓ **GM1 Gangliosidosis (GLB1 Exon 2, Portuguese Water Dog Variant)**
- ✓ **GM2 Gangliosidosis (HEXA, Japanese Chin Variant)**
- ✓ **Globoid Cell Leukodystrophy, Krabbe disease (GALC Exon 5, Terrier Variant)**
- ✓ **Autosomal Recessive Amelogenesis Imperfecta, Familial Enamel Hypoplasia (ENAM Deletion, Italian Greyhound Variant)**
- ✓ **Autosomal Recessive Amelogenesis Imperfecta, Familial Enamel Hypoplasia (ENAM SNP, Parson Russell Terrier Variant)**
- ✓ **Persistent Mullerian Duct Syndrome, PMDS (AMHR2)**
- ✓ **Deafness and Vestibular Syndrome of Dobermans, DVDob, DINGS (MYO7A)**
- ✓ **Shar-Pei Autoinflammatory Disease, SPAID, Shar-Pei Fever (MTBP)**
- ✓ **Neonatal Interstitial Lung Disease (LAMP3)**
- ✓ **Alaskan Husky Encephalopathy, Subacute Necrotizing Encephalomyelopathy (SLC19A3)**
- ✓ **Alexander Disease (GFAP)**
- ✓ **Cerebellar Abiotrophy, Neonatal Cerebellar Cortical Degeneration, NCCD (SPTBN2, Beagle Variant)**
- ✓ **Cerebellar Ataxia, Progressive Early-Onset Cerebellar Ataxia (SEL1L, Finnish Hound Variant)**

Additional Conditions Tested

- ✓ **Cerebellar Hypoplasia (VLDLR, Eurasier Variant)**
- ✓ **Spinocerebellar Ataxia, Late-Onset Ataxia, LoSCA (CAPN1)**
- ✓ **Spinocerebellar Ataxia with Myokymia and/or Seizures (KCNJ10)**
- ✓ **Hereditary Ataxia, Cerebellar Degeneration (RAB24, Old English Sheepdog and Gordon Setter Variant)**
- ✓ **Benign Familial Juvenile Epilepsy, Remitting Focal Epilepsy (LGI2)**
- ✓ **Degenerative Myelopathy, DM (SOD1A)**
- ✓ **Fetal-Onset Neonatal Neuroaxonal Dystrophy (MFN2, Giant Schnauzer Variant)**
- ✓ **Hypomyelination and Tremors (FNIP2, Weimaraner Variant)**
- ✓ **Shaking Puppy Syndrome, X-linked Generalized Tremor Syndrome (PLP1, English Springer Spaniel Variant)**
- ✓ **Neuroaxonal Dystrophy, NAD (TECPR2, Spanish Water Dog Variant)**
- ✓ **Neuroaxonal Dystrophy, NAD (VPS11, Rottweiler Variant)**
- ✓ **L-2-Hydroxyglutaricaciduria, L2HGA (L2HGDH, Staffordshire Bull Terrier Variant)**
- ✓ **Alaskan Malamute Polyneuropathy, AMPN (NDRG1 SNP)**
- ✓ **Narcolepsy (HCRT2 Intron 4, Doberman Pinscher Variant)**
- ✓ **Narcolepsy (HCRT2 Intron 6, Labrador Retriever Variant)**
- ✓ **Narcolepsy (HCRT2 Exon 1, Dachshund Variant)**
- ✓ **Progressive Neuronal Abiotrophy, Canine Multiple System Degeneration, CMSD (SERAC1 Exon 15, Kerry Blue Terrier Variant)**
- ✓ **Progressive Neuronal Abiotrophy, Canine Multiple System Degeneration, CMSD (SERAC1 Exon 4, Chinese Crested Variant)**
- ✓ **Juvenile Laryngeal Paralysis and Polyneuropathy, Polyneuropathy with Ocular Abnormalities and Neuronal Vacuolation, POANV (RAB3GAP1, Rottweiler Variant)**
- ✓ **Hereditary Sensory Autonomic Neuropathy, Acral Mutilation Syndrome, AMS (GDNF-AS, Spaniel and Pointer Variant)**

Additional Conditions Tested

- ✔ Sensory Neuropathy (FAM134B, Border Collie Variant)
- ✔ Juvenile-Onset Polyneuropathy, Leonberger Polyneuropathy 1, LPN1 (LPN1, ARHGEF10)
- ✔ Juvenile Myoclonic Epilepsy (DIRAS1)
- ✔ Juvenile-Onset Polyneuropathy, Leonberger Polyneuropathy 2, LPN2 (GJA9)
- ✔ Spongy Degeneration with Cerebellar Ataxia 1, SDCA1, SeSAME/EAST Syndrome (KCNJ10)
- ✔ Spongy Degeneration with Cerebellar Ataxia 2, SDCA2 (ATP1B2)
- ✔ Dilated Cardiomyopathy, DCM1 (PDK4, Doberman Pinscher Variant 1)
- ✔ Dilated Cardiomyopathy, DCM2 (TTN, Doberman Pinscher Variant 2)
- ✔ Long QT Syndrome (KCNQ1)
- ✔ Cardiomyopathy and Juvenile Mortality (YARS2)
- ✔ Muscular Dystrophy (DMD, Cavalier King Charles Spaniel Variant 1)
- ✔ Muscular Dystrophy (DMD, Golden Retriever Variant)
- ✔ Limb Girdle Muscular Dystrophy (SGCD, Boston Terrier Variant)
- ✔ Ullrich-like Congenital Muscular Dystrophy (COL6A3 Exon 10, Labrador Retriever Variant)
- ✔ Centronuclear Myopathy, CNM (PTPLA)
- ✔ Exercise-Induced Collapse, EIC (DNM1)
- ✔ Inherited Myopathy of Great Danes (BIN1)
- ✔ Myostatin Deficiency, Bully Whippet Syndrome (MSTN)
- ✔ Myotonia Congenita (CLCN1 Exon 7, Miniature Schnauzer Variant)
- ✔ Myotonia Congenita (CLCN1 Exon 23, Australian Cattle Dog Variant)

Additional Conditions Tested

- ✓ **Myotubular Myopathy 1, X-linked Myotubular Myopathy, XL-MTM (MTM1, Labrador Retriever Variant)**
- ✓ **Inflammatory Myopathy (SLC25A12)**
- ✓ **Hypocatalasia, Acatlasemia (CAT)**
- ✓ **Pyruvate Dehydrogenase Deficiency (PDP1, Spaniel Variant)**
- ✓ **Malignant Hyperthermia (RYR1)**
- ✓ **Imerslund-Grasbeck Syndrome, Selective Cobalamin Malabsorption (CUBN Exon 53, Border Collie Variant)**
- ✓ **Imerslund-Grasbeck Syndrome, Selective Cobalamin Malabsorption (CUBN Exon 8, Beagle Variant)**
- ✓ **Inherited Selected Cobalamin Malabsorption with Proteinuria (CUBN, Komondor Variant)**
- ✓ **Lundehund Syndrome (LEPREL1)**
- ✓ **Congenital Myasthenic Syndrome, CMS (CHAT, Old Danish Pointing Dog Variant)**
- ✓ **Congenital Myasthenic Syndrome, CMS (COLQ, Labrador Retriever Variant)**
- ✓ **Congenital Myasthenic Syndrome, CMS (CHRNE, Jack Russell Terrier Variant)**
- ✓ **Congenital Myasthenic Syndrome, CMS (COLQ, Golden Retriever Variant)**
- ✓ **Myasthenia Gravis-Like Syndrome (CHRNE, Heideterrier Variant)**
- ✓ **Episodic Falling Syndrome (BCAN)**
- ✓ **Paroxysmal Dyskinesia, PxD (PIGN)**
- ✓ **Demyelinating Polyneuropathy (SBF2/MTRM13)**
- ✓ **Dystrophic Epidermolysis Bullosa (COL7A1, Golden Retriever Variant)**
- ✓ **Dystrophic Epidermolysis Bullosa (COL7A1, Central Asian Shepherd Dog Variant)**
- ✓ **Ectodermal Dysplasia, Skin Fragility Syndrome (PKP1, Chesapeake Bay Retriever Variant)**

Additional Conditions Tested

- ✔ Ichthyosis, Epidermolytic Hyperkeratosis (KRT10, Terrier Variant)
- ✔ Ichthyosis, ICH1 (PNPLA1, Golden Retriever Variant)
- ✔ Ichthyosis (SLC27A4, Great Dane Variant)
- ✔ Ichthyosis (NIPAL4, American Bulldog Variant)
- ✔ Hereditary Footpad Hyperkeratosis (FAM83G, Terrier and Kromfohrlander Variant)
- ✔ Hereditary Footpad Hyperkeratosis (DSG1, Rottweiler Variant)
- ✔ Hereditary Nasal Parakeratosis, HNPk (SUV39H2)
- ✔ Musladin-Lueke Syndrome, MLS (ADAMTSL2)
- ✔ Oculocutaneous Albinism, OCA (SLC45A2, Small Breed Variant)
- ✔ Bald Thigh Syndrome (IGFBP5)
- ✔ Lethal Acrodermatitis, LAD (MKLN1)
- ✔ Ehlers Danlos (ADAMTS2, Doberman Pinscher Variant)
- ✔ Cleft Lip and/or Cleft Palate (ADAMTS20, Nova Scotia Duck Tolling Retriever Variant)
- ✔ Hereditary Vitamin D-Resistant Rickets (VDR)
- ✔ Oculoskeletal Dysplasia 2, Dwarfism-Retinal Dysplasia 2, drd2, OSD2 (COL9A2, Samoyed Variant)
- ✔ Osteogenesis Imperfecta, Brittle Bone Disease (COL1A2, Beagle Variant)
- ✔ Osteogenesis Imperfecta, Brittle Bone Disease (SERPINH1, Dachshund Variant)
- ✔ Osteogenesis Imperfecta, Brittle Bone Disease (COL1A1, Golden Retriever Variant)
- ✔ Skeletal Dysplasia 2, SD2 (COL11A2, Labrador Retriever Variant)
- ✔ Craniomandibular Osteopathy, CMO (SLC37A2)

Additional Conditions Tested

- ✓ Raine Syndrome, Canine Dental Hypomineralization Syndrome (FAM20C)
- ✓ Chondrodystrophy (ITGA10, Norwegian Elkhound and Karelian Bear Dog Variant)