Canine HealthCheck

Demographic Information

Call Name	Juno	DOB	January 1, 2019
Registered Name	Kuttacheri's Juno	Registration Number	
Breed	Australian Shepherd	Tattoo	
Sex	F	Microchip	
Owner	Alyssa Kuttacheri	Laboratory #	AN-L-CHC-20904
		Report Date	September 11, 2019

These tests were developed and performed by Paw Print Genetics®, Spokane WA.

Explanation of Results

Normal	A Normal result means that your dog does not have the mutation that causes the concerned genetic disease.
Carrier	A Carrier result indicates that your dog has inherited one copy of the mutation that causes the concerned genetic disease. Dogs with one copy of the mutation are called carriers. In addition, recessive traits like coat color and dilution are usually caused by one cause disease.
Carrier / At-Risk	A Carrier / At-Risk result indicates that your dog inherited one copy of the mutation that has been reported to cause this genetic disease. Based on the model of genetic inheritance for this particular disease, inheriting one or two mutant copies of the gene may result in the disease. Dogs with one copy of the mutation may have a milder phenotype as compared to dogs with two copies of the mutation.
At-Risk / Affected	An At-Risk / Affected result indicates that your dog has inherited one or two copies of the mutation that has been reported to cause the genetic disease. Based on the mode of genetic inheritance for this particular disease, inheriting one or two mutant copies of the gene may result in the disease.
No Result	No Result indicates that we were unable to obtain a genotype for your dog for the genetic disease listed. This may happen if we do not have a DNA test for this disease. There are a number of reasons a specific test may not provide a reportable result. Unique variations in the genetic code of some individuals may occur that prevent a particular DNA test from working as intended in your dog. In rare cases, a mutation may occur in the genetic sequence of a specific test that causes a sample performance due to inadequate cell counts, bacterial and fungal growth, or other unknown factors. Although we do not have a DNA test for this disease, we have been determined that the breed/lineage of your dog is at risk for this disease. Breeds are determined to be susceptible and reportable if our dog has two ancestrally related dogs in their pedigree that have been confirmed to have a genetic mutation for a disease.

Please review our testing terms and disclaimers regarding your results.

WT: wild-type (normal) TC: carrier TA: at-risk/affected

Breed Profile

Disease Name	Geno.	Interpretation
Canine Leukocyte Adhesion Deficiency	WT/WT	Normal (Clear)
Collie Eye Anomaly	WT/WT	Normal (Clear)
Cone Degeneration	WT/WT	Normal (Clear)
Degenerative Myelopathy Common Variant	WT/WT	Normal (Clear)
Exercise-Induced Collapse	WT/WT	Normal (Clear)
Hereditary Cataracts Australian Shepherd Type	WT/WT	Normal (Clear)
Hyperuricosuria	WT/WT	Normal (Clear)
Intestinal Cobalamin Malabsorption Border Collie Type	WT/WT	Normal (Clear)
Multidrug Resistance 1	WT/WT	Normal (Clear)
Multifocal Retinopathy	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 6	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 8 Australian Shepherd Type	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Progressive Rod-Cone Degeneration prcd	WT/WT	Normal (Clear)

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Coat Colors & Traits

Trait Name	Geno.	Interpretation
A Locus Agouti Signal	a/a	Black/sable/red
K Locus K1, K2, K3	K/K	Dominant Black
B Locus – b1, b2, b3	B/b	Black coat, nose and foot pads (partes brown)
A Locus Wired – 3'	A	
A Locus Wired – 5'	A	
A Locus Wired – 3'	A	
D Locus Dilution	D/D	Non-dilute
E Locus Melanocortin 1 Receptor	E/E	Black
M1 Locus Melanocyte Stimulating Hormone	M/M	No melanistic mask
K Locus Dominant Black	K/k*	Agouti expression allowed
L Locus – L1 Long Hair/Fluffy	L/L4	Longhaired
Sex Determination	N/N	Female
T Locus Natural Bobtail	t/t	Normal tail

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Determinations of coat colors and traits are complex. Many of these variants are known and many of the genes is involved in the pigmentation pathway are known, but there may be other genes that have not yet been found that can influence the color of your dog's coat. The results of the tests for the known coat color genes are reported in the table above. Some of the known variants for coat color genes may vary from your dog's actual appearance. Additional differences in genes throughout the canine genome, not tested in this genetic screen, may also affect the final coat color or traits seen in your dog.

Diseases

Disease Name	Geno.	Interpretation
Alaskan Husky Encephalopathy	WT/WT	Normal (Clear)
Alaskan Malamute Polyneuropathy	WT/WT	Normal (Clear)
Amelogenesis Imperfecta	WT/WT	Normal (Clear)
Benign Familial Juvenile Epilepsy	WT/WT	Normal (Clear)
Canine Multifocal Retinopathy 3 Chinese Crested Type	WT/WT	Normal (Clear)
Canine Multiple System Degeneration Kerry Blue Terrier Type	WT/WT	Normal (Clear)
Cerebellar Ataxia Finnish Hound Type	WT/WT	Normal (Clear)
Chondrodystrophy Karelian Bear Dog and Norwegian Elkhound Type	WT/WT	Normal (Clear)
Coagulation Factor XI Deficiency	WT/WT	Normal (Clear)
Collie Eye Anomaly	WT/WT	Normal (Clear)
Complement 3 Deficiency	WT/WT	Normal (Clear)
Cone Degeneration	WT/WT	Normal (Clear)
Cone Degeneration German Shorthaired Pointer Type	WT/WT	Normal (Clear)
Congenital Hypothyroidism Syndrome Labrador Retriever Type	WT/WT	Normal (Clear)
Congenital Hypothyroidism Syndrome Old Danish Pointer Type	WT/WT	Normal (Clear)
Congenital Stationary Night Blindness	WT/WT	Normal (Clear)
Cystinuria Newfoundland Type	WT/WT	Normal (Clear)
Cystinuria Miniature Pinscher Type	WT/WT	Normal (Clear)
Cystinuria Newfoundland Type	WT/WT	Normal (Clear)
Degenerative Myelopathy Common Variant	WT/WT	Normal (Clear)
Dilated Cardiomyopathy Doberman Pinscher Type Risk Factor, Variant 1	No Result	No Result
Dry Eye Curly Coat Syndrome	WT/WT	Normal (Clear)
Dystrophic Epidermolysis Bullosa	WT/WT	Normal (Clear)
Early Retinal Degeneration	WT/WT	Normal (Clear)
Erythrokeratal Dystrophy Chesapeake Bay Retriever Type	WT/WT	Normal (Clear)
Erythrokeratal Dystrophy, X-Linked Shepherd Type	X-Linked Female Normal	
Ethylmalonic	WT/WT	Normal (Clear)
Epidermolytic Hyperkeratosis	WT/WT	Normal (Clear)
Exercise-Induced Collapse	WT/WT	Normal (Clear)
Familial Nephropathy Cocker Spaniel Type	WT/WT	Normal (Clear)
Familial Nephropathy Soft Coated Wheaten Terrier Type	WT/WT	Normal (Clear)
Gelbsucker Mucoceles	WT/WT	Normal (Clear)
Glycogenosis Thrombasthenia Otterhound Type	WT/WT	Normal (Clear)
Globoid Cell Leukodystrophy Irish Setter Type	WT/WT	Normal (Clear)
Globoid Cell Leukodystrophy Terrier Type	WT/WT	Normal (Clear)
Glycogen Storage Disease Ia	WT/WT	Normal (Clear)
Glycogen Storage Disease IIIa Marchesani Type	WT/WT	Normal (Clear)
GM1 Gangliosidosis Alaskan Husky Type	WT/WT	Normal (Clear)
GM1 Gangliosidosis Portuguese Water Dog Type	WT/WT	Normal (Clear)
GM1 Gangliosidosis Shiba Inu Type	WT/WT	Normal (Clear)
GM2 Gangliosidosis Japanese Chin Type	WT/WT	Normal (Clear)
GM2 Gangliosidosis Boxer Type	WT/WT	Normal (Clear)
Greyhound Polyneuropathy	WT/WT	Normal (Clear)
Hemophilia A German Shepherd Dog, Type 2	X-Linked Female Normal	
Hemophilia B Cairn Terrier Type	X-Linked Female Normal	
Hemophilia B Lhasa Apso Type	X-Linked Female Normal	
Hemophilia B Rhodesian Ridgeback Type	X-Linked Female Normal	
Hereditary Cataracts Australian Shepherd Type	WT/WT	Normal (Clear)
Hereditary Cataracts Australian Shepherd Type	WT/WT	Normal (Clear)
Hereditary Footpad Hyperkeratosis Irish Terrier and Kerry Blue Terrier Type	WT/WT	Normal (Clear)
Hereditary Nasal Parakeratosis	WT/WT	Normal (Clear)
Hereditary Nephritis Samoyed Type	X-Linked Female Normal	
Hyperuricosuria	WT/WT	Normal (Clear)
Ichthyosis Golden Retriever Type	WT/WT	Normal (Clear)
Inherited Myopathy of Great Danes	WT/WT	Normal (Clear)
Intestinal Cobalamin Malabsorption Beagle Type	WT/WT	Normal (Clear)
Intestinal Cobalamin Malabsorption Border Collie Type	WT/WT	Normal (Clear)
Juvenile Laryngeal Paralysis and Polyneuropathy	WT/WT	Normal (Clear)
L-2-Hydroxyglutaric Aciduria Staffordshire Bull Terrier Type	WT/WT	Normal (Clear)
Late Onset Ataxia	WT/WT	Normal (Clear)
Leukocyte Adhesion Deficiency, Type II	WT/WT	Normal (Clear)
Leukocyte Adhesion Deficiency, Type III	WT/WT	Normal (Clear)
Mitp Hepatic Anomaly	WT/WT	Normal (Clear)
Mucopolysaccharidosis I	WT/WT	Normal (Clear)
Mucopolysaccharidosis IIA Dachshund Type	WT/WT	Normal (Clear)
Mucopolysaccharidosis IIA New Zealand Kooikerhond Type	WT/WT	Normal (Clear)
Mucopolysaccharidosis VII Shepherd Type	WT/WT	Normal (Clear)
Multidrug Resistance 1	WT/WT	Normal (Clear)
Multifocal Retinopathy 1	WT/WT	Normal (Clear)
Multifocal Retinopathy 2	WT/WT	Normal (Clear)
Multifocal Retinopathy 3	WT/WT	Normal (Clear)
Muscular Dystrophy Golden Retriever Type	WT/WT	X-Linked Female Normal
Myasthenia Gravis Whippet and Longhaired Whippet Type	WT/WT	Normal (Clear)
Myotonia Congenita Australian Cattle Dog Type	WT/WT	Normal (Clear)
Myotonia Congenita Schnauzer Type	WT/WT	Normal (Clear)
Myotubular Myopathy 1	WT/WT	X-Linked Female Normal
Narcolepsy Dachshund Type	WT/WT	Normal (Clear)
Narcolepsy Doberman Pinscher Type	WT/WT	Normal (Clear)
Narcolepsy Labrador Retriever Type	WT/WT	Normal (Clear)
Neonatal Cerebellar Cortical Degeneration	WT/WT	Normal (Clear)
Neonatal Encephalopathy with Seizures	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 2 Tibetan Terrier Type	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 1	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 10	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 2	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 4A	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 5 Australian Cattle Dog/Border Collie Type	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 6	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 8 Australian Shepherd Type	WT/WT	Normal (Clear)
Neuronal Ceroid Lipofuscinosis 8 Setter Type	WT/WT	Normal (Clear)
Osteogenesis Imperfecta Dwarf Type	WT/WT	Normal (Clear)
Osteogenesis Imperfecta Golden Retriever Type	WT/WT	Normal (Clear)
P2RY12 Receptor Platelet Disorder	WT/WT	Normal (Clear)
Persistent Müllerian Duct Syndrome	WT/WT	Normal (Clear)
Polyneuropathy Leonberger and Saint Bernard Type	WT/WT	Normal (Clear)
Pompe Disease	WT/WT	Normal (Clear)
Prekallikrein Deficiency	WT/WT	Normal (Clear)
Primary Ciliary Dyskinesia	WT/WT	Normal (Clear)
Primary Hyperoxaluria	WT/WT	Normal (Clear)
Primary Lens Luxation	WT/WT	Normal (Clear)
Primary Open Angle Glaucoma	WT/WT	Normal (Clear)
Progressive Retinal Atrophy Sound Type	WT/WT	Normal (Clear)
Progressive Retinal Atrophy Bouvier/Bouvier Type	WT/WT	Normal (Clear)
Progressive Retinal Atrophy Irish Setter Type	WT/WT	Normal (Clear)
Progressive Retinal Atrophy Straight Type	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Cone-Rod Dystrophy	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Generalized	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Golden Retriever 1	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Golden Retriever 2	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, PRA1 Papillon Type	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Progressive Rod-Cone Degeneration prcd	WT/WT	Normal (Clear)
Progressive Retinal Atrophy, Rod-Cone Dysplasia 3	WT/WT	Normal (Clear)
Pyruvate Dehydrogenase Deficiency	WT/WT	Normal (Clear)
Pyruvate Kinase Deficiency Sound Type	WT/WT	Normal (Clear)
Pyruvate Kinase Deficiency Straight Type	WT/WT	Normal (Clear)
Pyruvate Kinase Deficiency Labrador Retriever Type	WT/WT	Normal (Clear)
Pyruvate Kinase Deficiency Pug Type	WT/WT	Normal (Clear)
Pyruvate Kinase Deficiency Terrier Type	WT/WT	Normal (Clear)
Renal Cystadenocarcinoma and Nodular Dermatofibrosis	WT/WT	Normal (Clear)
Sensory Ataxia Neuropathy	WT	Normal (Clear)
Severe Combined Immunodeficiency Disease Terrier Type	WT/WT	Normal (Clear)
Severe Combined Immunodeficiency Disease Shetland Sheepdog Type	WT/WT	Normal (Clear)
Severe Combined Immunodeficiency Disease, X-linked Basenji Type	X-Linked Female Normal	
Severe Combined Immunodeficiency Disease, X-linked Corgi Type	No Result	No Result
Skeletal Dysplasia 2	WT/WT	Normal (Clear)
Spinal Dysrhythmia	WT/WT	Normal (Clear)
Spinocerebellar Ataxia	WT/WT	Normal (Clear)
Starke Disease	WT/WT	Normal (Clear)
Thrombopathia Newfoundland Type	WT/WT	Normal (Clear)
Thrombopathia Basset Hound Type	WT/WT	Normal (Clear)
Trapped Neurotrophil Syndrome	WT/WT	Normal (Clear)
Vitamin D-Dependent Rickets, Type I Pomeranian Type	WT/WT	Normal (Clear)
Von Willebrand Disease I Kooikerhondje Type	WT/WT	Normal (Clear)
Von Willebrand Disease II	No Result	No Result
Von Willebrand Disease III Kooikerhondje Type	WT/WT	Normal (Clear)
Von Willebrand Disease III Scottish Terrier Type	WT/WT	Normal (Clear)

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