Orthopedic Foundation for Animals

Preliminary Hip Dysplasia Evaluation Report

A Not-for-Profit Organization

BEA
registered name

NOREG2515733
registration no.

HYBRID
breed

F
sex

02/15/2022
date of birth

film/test/lab #

528210006664642
tattoo/microchip/DNA profile

22
age at evaluation in months

2515733
application number

02/29/2024
date of report

Owner

SARAH SCHAERLAECKENS
SARAH.SCHAERLAECKENS@HOTMAIL.COM
2520 RANST
BELGIUM

Veterinarian

DAP DE MAALDERIJ
INFO@DEMAALDERIJ.BE
2500 LIER
BELGIUM

Preliminary Hip Dysplasia Evaluation Report

_____ **EXCELLENT HIP JOINT CONFORMATION**
superior hip joint conformation as compared with other individuals of the same breed and age

_____ **BORDERLINE HIP JOINT CONFORMATION**
marginal hip joint conformation of indeterminate status with respect to hip dysplasia at this time -- Repeat study in six months

__√__ **GOOD HIP JOINT CONFORMATION**
well formed hip joint conformation as compared with other individuals of the same breed and age

_____ **MILD HIP DYSPLASIA**
radiographic evidence of minor dysplastic changes of the hip joints

_____ **FAIR HIP JOINT CONFORMATION**
minor irregularities of the hip joint conformation as compared with other individuals of the same breed and age

_____ **MODERATE HIP DYSPLASIA**
well defined radiographic evidence of dysplastic changes of the hip joints

_____ **SEVERE HIP DYSPLASIA**
radiographic evidence of marked dysplastic changes of the hip joints

RADIOGRAPHIC FINDINGS

_____ subluxation
_____ remodeling of femoral head/neck
_____ osteoarthritis/degenerative joint disease
_____ shallow acetabula
_____ acetabular rim/edge change

_____ unilateral _____ left _____ right
_____ transitional vertebra
_____ spondylosis
_____ panosteitis

G.G. KELLER, DVM, MS, DACVR
CHIEF OF VETERINARY SERVICES

2300 E Nifong Blvd | Columbia MO 65201 | Phone (573) 442-0418 | Fax (573) 875-5073 | ofa@offa.org | www.ofa.org

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ELBOW JOINTS -- FLEXED LATERAL VIEW

___√___ negative for elbow dysplasia	L ___√___	R ___√___

ELBOW DYSPLASIA

GRADE I	L _____	R _____
GRADE II	L _____	R _____
GRADE III	L _____	R _____

RADIOGRAPHIC FINDINGS

degenerative joint disease (DJD)	L _____	R _____
ununited anconeal process (UAP)	L _____	R _____
fragmented coronoid process (FCP)	L _____	R _____
osteochondrosis	L _____	R _____

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RAPPORT-OOG-ONDERZOEK
Certificate of eye examination
European College of Veterinary Ophthalmologists

Belgisch ECVO Panel ter bestrijding van de (als) erfelijk(e) (beschouwde) oogaandoeningen (E-EBOA) bij dieren

www.belgianECVOpanel.be
info@belgianECVOpanel.be

ECVO reg.nr.onderzoek reg.no.examination
O-B-NL 0015496
ECVO reg.nr.onderzoeker reg.no. examiner
BCAP

Dier animal

Naam name: O'MALLY
Ras breed: GOLDEN DOODLE
Stamboek no. registration no.:
Microchip no. microchip no.: 528210006664042
Geb.datum date of birth: dag day 15 - maand month 02 - jaar year 22
Geslacht sex: ☑ Vrouwelijk female ☐ Mannelijk male
Rasvereniging breed club:
Kleur colour: BLOND
Tatoeage tattoo:

Eigenaar/houder owner/agent

Naam name: SCHAEPLAERENS
Adres address: HANDBOOGWEG 16C
Land, PC country, Zip: land country BE postcode ZIP code 2520
Woonpl town: RANST

Ondergetekende, eigenaar/houder, gaat akkoord met de regels van het nationale programma ter bestrijding van de als E-EBOA in België en de Europese Unie, en verklaart dat het ter keuring aangeboden dier het hierboven beschreven dier is. Hij/zij gaat akkoord met het openbaar maken en ander ECVO goedgekeurd gebruik van alle informatie vermeld op dit rapport-oogonderzoek in het kader van de bestrijding van de hieronder vermelde oogafwijkingen waarbij de verspreiding van de gegevens, onder welke vorm ook, voorzien is. Deze gegevens worden gebruikt in België en in de Europese Unie. Ondergetekende, eigenaar/houder, is er zich echter van bewust dat deze gegevens ook gebruikt zullen kunnen worden in landen buiten de Europese Unie, waar eenzelfde rechtsbescherming van de persoonsgegevens niet gegarandeerd is. English version: see below.

Informatie achterzijde formulier gezien

Handtekening eigenaar/houder Signature owner / agent

Onderzoek examination

Identificatie identification

Datum date: dag day 08 - maand month 01 - jaar year 24

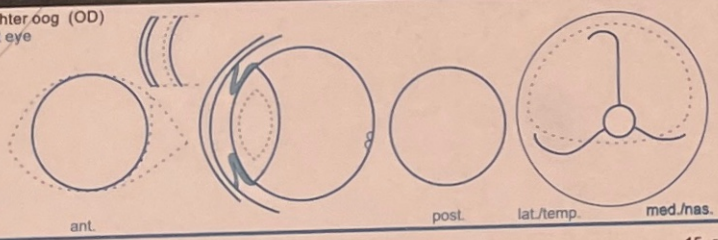
Controle microchip / tatoeage check microchip tattoo: ☑ Correct correct

Methode minimaal: method minimal: Mydriaticum, ophthalmoscopie indirect en spleetlamp biomicroscopie ≥10x
Mydriatic, Indirect ophthalmoscopy and binocular biomicroscopy ≥10 x

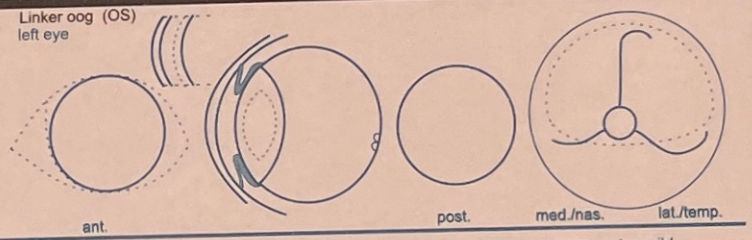
Extra: optional:
☐ Onderzocht vóór pupilverwijding Examined before dilatation
☐ Gonioscopie (zonder mydriaticum) Gonioscopy (without mydriatic)
☐ Anders: Other:

Andere methode, dan specificeren in het Commentaarveld
If another method is used, this must be specified in the Comments area

Rechter oog (OD) right eye



Linker oog (OS) left eye



Commentaar: descriptive comments

15. andere lenstroebeling:
- punctata
- suture line tip
- suture line
- nucleus ring
- nucleus fiberglass/pulverulent

8. ICAA: PLA
- gering mild
- middelmatig moderate
- ernstig severe

ICA (breedte) (width)
- nauw (middelmatig) narrow (moderate)
- gesloten (ernstig) closed (severe)

Oogziekte no.: eye disease no.:
☐ ernstig severe

Resultaat voor de (als) erfelijk(e) (beschouwde) oogziekten (E-EBOZ): results for the KP-HED:

	VRIJ	onbeslist / voorlopig niet vrij	NIET VRIJ
1. Membrana Pupillaris Persistens (PPM)	☐	☐	☐ iris ☐ cornea ☐ lens ☐ lamina
2. Persisterende Hyperpl.Tunica Vasculosa Lentis/Primair Vitreum (PHTVL/PHPV)	☐	☐	☐ graad 1 ☐ graad 2-6
3. Cataract (congenitaal)	☐	☐	☐ (multi)focaal ☐ geografisch ☐ totaal
4. Retina Dysplasie (RD)	☐	☐	
5. Hypoplasie-/ Micropapilla	☐	☐	☐ choroid. hypoplasie ☐ coloboma ☐ anders:
6. Collie Eye Anomaly (CEA)	☐	☐	
7. Anders: other:	☐	☐	☐ gering ☐ middelmatg ☐ ernstig
8. IridoCorneale Hoek Abnormaliteit (ICAA)	☐ UNAFFECTED	☐ SUSPICIOUS / UNDETERMINED	AFFECTED

Resultaten geldig voor 12 maanden results valid for 12 month

	VRIJ	onbeslist / voorlopig niet vrij	NIET VRIJ
11. Entropion / Trichiasis	☐	☐	☐
12. Ectropion / Macroblepharon	☐	☐	☐
13. Distichiasis / Ectopische cilie	☐	☐	☐
14. Cornea dystrofie	☐	☐	☐
15. Cataract (niet congenitaal)	☐	☐	☐ corticaal ☐ post.pol. ☐ nucleus ☐ andere lenstroebeling
16. Lensluxatie (primair)	☐	☐	☐
17. Retina degeneratie (PRA)	☐	☐	☐
18. Anders: other:	☐ UNAFFECTED	☐ SUSPICIOUS / UNDETERMINED	☐ AFFECTED

Interpretatie interpretation

"VRIJ": Het dier vertoont geen verschijnselen van deze, erfelijke oogziekte(s). "NIET VRIJ": Het dier vertoont de klinische symptomen van de (als) erfelijk(e) (beschouwde) oogziekte (E-EBOZ).
"UNAFFECTED" signifies that there is no clinical evidence of the known or presumed hereditary eye diseases (KP-HED) specified, whereas "AFFECTED" signifies that there is such evidence.
"Onbeslist": Zeer geringe afwijkingen, die mogelijk passen bij het klinische beeld van deze, als E-EBOZ; deze zijn echter onvoldoende specifiek.
"Undetermined": The animal displays clinical features that could possibly fit the known or presumed hereditary eye diseases (KP-HED) mentioned, but the changes are inconclusive.
"Voorlopig niet vrij": Geringe afwijkingen passend in het klinisch beeld van deze, als E-EBOZ. Voortschrijden van het proces moet dit bevestigen.
"Suspicious": The animal displays minor, but specific clinical signs of the known or presumed hereditary eye diseases (KP-HED) mentioned. Further development will confirm the diagnosis.

VOOR VERDERE INFORMATIE: Z.O.Z. further info: P.T.O.

Undersigned owner/agent, agrees to the rules of the national scheme for control of inherited eye diseases in Belgium and within the European Union (EU)and declares that the animal submitted for examination is the one described above. He/she agrees to the making public of all information written on the Certificate within the ECVO scheme control of known or presumed hereditary eye diseases mentioned below and for which the distribution of data, also for ECVO approved use, in whatever possible form, is foreseen. These data are used in Belgium and within the EU. The undersigned owner/agent, however, is aware of the fact that these data may also be used in countries outside the EU, where the same legal protection of personal details cannot be guaranteed.

Onderzoeker examiner

Ondergetekende heeft bovenstaand dier onderzocht in het kader van het bestrijdingsprogramma van de als E-EBOZ met het bovengenoemde resultaat.

The undersigned has examined the above mentioned animal within the scope of control on KP-HED.

Naam name: DR. CAPIAU
Plaats place: Beerse
2022-10-13 © ECVO

handtekening dierenarts, geautoriseerd door de ECVO
signature examiner, authorized by ECVO

kleur / distributie: los formulier

wit	Nationaal register
geel	rasvereniging
roze	onderzoeker
wit	eigenaar/houder

colour / distribution: if not online

white	national registry
yellow	national breed club
pink	examiner
white	owner/agent

DNA Test Report

Owner Info

First Name
Sarah

Last Name
Schaerlaeckens

Pet Info

Registered Name
Bea

Date of Birth
15-2-2022

Nickname (Call Name)
Bea

Sample ID
DLKDTPJ

Sex
Female

Registration
N/A

Country of Origin
NL

Microchip ID
528210006664642

Owner Reported Breed
Golden Retriever

Tattoo ID
N/A

Genetic Diversity (Heterozygosity)

Bea's Percentage of Heterozygosity

43%

Bea's genome analysis shows higher than average genetic heterozygosity when compared with other Golden Retrievers.

Typical Range for Golden Retrievers

28 - 37%

Health Conditions Known in This Breed

Genetic Condition	Gene	Risk Variant	Copies	Result
Congenital Eye Malformations (Discovered in the Golden Retriever)	SIX6	C>T	0	Clear
Congenital Myasthenic Syndrome (Discovered in the Golden Retriever)	COLQ	G>A	0	Clear
Degenerative Myelopathy	SOD1	G>A	0	Clear
Dystrophic Epidermolysis Bullosa (Discovered in the Golden Retriever)	COL7A1	C>T	0	Clear
Ichthyosis Type 2 (Discovered in the Golden Retriever)	ABHD5	Deletion	0	Clear
Muscular Dystrophy (Discovered in the Golden Retriever)	Dystrophin	A>G	0	Clear
Neuronal Ceroid Lipofuscinosis 5 (Discovered in the Golden Retriever)	CLN5	—	0	Clear
Progressive Retinal Atrophy (Discovered in the Golden Retriever - GR-PRA 2 variant)	TTC8	Deletion	0	Clear
Progressive Retinal Atrophy (Discovered in the Golden Retriever - GR-PRA1 variant)	SLC4A3	Insertion	0	Clear
Progressive Rod Cone Degeneration (prcd-PRA)	PRCD	G>A	0	Clear
Sensory Ataxic Neuropathy	tRNATyr	Deletion	0	Clear

Other Conditions Tested

Genetic Condition	Gene	Risk Variant	Copies	Result
2,8-dihydroxyadenine (DHA) Urolithiasis	APRT	G>A	0	Clear
Acral Mutilation Syndrome	GDNF	C>T	0	Clear
Acute Respiratory Distress Syndrome	ANLN	C>T	0	Clear
Alaskan Husky Encephalopathy	SLC19A3	G>A	0	Clear
Alexander Disease	GFAP	G>A	0	Clear
Amelogenesis Imperfecta (Discovered in the Italian Greyhound)	ENAM	Deletion	0	Clear
Amelogenesis Imperfecta (Discovered in the Lancashire Heeler)	Confidential	—	0	Clear
Amelogenesis Imperfecta (Discovered in the Parson Russell Terrier)	ENAM	C>T	0	Clear

Other Conditions Tested (continued)

Genetic Condition	Gene	Risk Variant	Copies	Result
Bandera's Neonatal Ataxia	GRM1	Insertion	0	Clear
Benign Familial Juvenile Epilepsy	LGI2	A>T	0	Clear
Bernard-Soulier Syndrome (Discovered in the Cocker Spaniel)	GP9	Deletion	0	Clear
Canine Congenital Stationary Night Blindness (Discovered in the Beagle)	LRIT3	Deletion	0	Clear
Canine Leukocyte Adhesion Deficiency (CLAD), type III	FERMT3	Insertion	0	Clear
Canine Multifocal Retinopathy 1	BEST1	C>T	0	Clear
Canine Multifocal Retinopathy 2	BEST1	G>A	0	Clear
Canine Multifocal Retinopathy 3	BEST1	Deletion	0	Clear
Canine Multiple Systems Degeneration (Discovered in the Chinese Crested Dog)	SERAC1	Deletion	0	Clear
Canine Scott Syndrome	ANO6	G>A	0	Clear
Cardiomyopathy and Juvenile Mortality (Discovered in the Belgian Shepherd)	YARS2	G>A	0	Clear
Centronuclear Myopathy (Discovered in the Great Dane)	BIN1	A>G	0	Clear
Centronuclear Myopathy (Discovered in the Labrador Retriever)	PTPLA	Insertion	0	Clear
Cerebellar Ataxia	RAB24	A>C	0	Clear
Cerebellar Cortical Degeneration	SNX14	C>T	0	Clear
Cerebellar Hypoplasia	VLDLR	Deletion	0	Clear
Cerebral Dysfunction	SLC6A3	G>A	0	Clear
Chondrodysplasia (Discovered in Norwegian Elkhound and Karelian Bear Dog)	ITGA10	C>T	0	Clear
Chondrodystrophy (CDDY) and Intervertebral Disc Disease (IVDD) Risk	FGF4 retrogene	Insertion	0	Clear
Cleft Lip & Palate with Syndactyly	ADAMTS20	Deletion	0	Clear
Cleft Palate	DLX6	C>A	0	Clear
CNS Atrophy with Cerebellar Ataxia (Discovered in the Belgian Shepherd)	SEPP1	Deletion	0	Clear

Other Conditions Tested (continued)

Genetic Condition	Gene	Risk Variant	Copies	Result
Coat Color Dilution and Neurological Defects (Discovered in the Miniature Dachshund)	MYO5A	Insertion	0	Clear
Collie Eye Anomaly (CEA)	NHEJ1	Deletion	0	Clear
Complement 3 Deficiency	C3	Deletion	0	Clear
Cone Degeneration (Discovered in the Alaskan Malamute)	CNGB3	Deletion	0	Clear
Cone Degeneration (Discovered in the German Shepherd Dog)	CNGA3	C>T	0	Clear
Cone Degeneration (Discovered in the German Shorthaired Pointer)	CNGB3	G>A	0	Clear
Cone-Rod Dystrophy	NPHP4	Deletion	0	Clear
Cone-Rod Dystrophy 1	PDE6B	Deletion	0	Clear
Cone-Rod Dystrophy 2	IQCB1	Insertion	0	Clear
Congenital Cornification (Discovered in the Labrador Retriever)	NSDHL	Deletion	0	Clear
Congenital Dyshormonogenic Hypothyroidism with Goiter (Discovered in the Shih Tzu)	SLC5A5	G>A	0	Clear
Congenital Hypothyroidism (Discovered in the Tenterfield Terrier)	TPO	C>T	0	Clear
Congenital Hypothyroidism (Discovered in the Toy Fox and Rat Terrier)	TPO	C>T	0	Clear
Congenital Muscular Dystrophy (Discovered in the Italian Greyhound)	LAMA2	G>A	0	Clear
Congenital Muscular Dystrophy (Discovered in the Staffordshire Bull Terrier)	LAMA2	Deletion	0	Clear
Congenital Myasthenic Syndrome (Discovered in the Heideterrier)	CHRNE	Insertion	0	Clear
Congenital Myasthenic Syndrome (Discovered in the Jack Russell Terrier)	CHRNE	Insertion	0	Clear
Congenital Myasthenic Syndrome (Discovered in the Labrador Retriever)	COLQ	T>C	0	Clear
Congenital Myasthenic Syndrome (Discovered in the Old Danish Pointer)	CHAT	G>A	0	Clear
Congenital Stationary Night Blindness (CSNB)	RPE65	A>T	0	Clear
Craniomandibular Osteopathy (Discovered in Scottish Terrier breeds)	SLC37A2	C>T	0	Clear

Other Conditions Tested (continued)

Genetic Condition	Gene	Risk Variant	Copies	Result
Craniomandibular Osteopathy (Discovered in the Australian Terrier)	COL1A1	C>T	0	Clear
Craniomandibular Osteopathy (Discovered in the Basset Hound)	SLC37A2	C>T	0	Clear
Craniomandibular Osteopathy (Discovered in the Weimaraner)	SLC35D1	Deletion	0	Clear
Cystic Renal Dysplasia and Hepatic Fibrosis	INPP5E	G>A	0	Clear
Cystinuria Type I-A	SLC3A1	C>T	0	Clear
Cystinuria Type II-A	SLC3A1	Deletion	0	Clear
Darier Disease (Discovered in the Irish Terrier)	ATP2A2	Insertion	0	Clear
Deafness and Vestibular Dysfunction (DINGS1), (Discovered in Doberman Pinscher)	PTPRQ	Insertion	0	Clear
Deafness and Vestibular Dysfunction (DINGS2), (Discovered in Doberman Pinscher)	MYO7A	G>A	0	Clear
Demyelinating Neuropathy	SBF2	G>T	0	Clear
Dental Hypomineralization	FAM20C	C>T	0	Clear
Dental-Skeletal-Retinal Anomaly (Discovered in the Cane Corso)	MIA3	I>S	0	Clear
Dilated Cardiomyopathy (Discovered in the Schnauzer)	RBM20	Deletion	0	Clear
Disproportionate Dwarfism (Discovered in the Dogo Argentino)	PRKG2	C>A	0	Clear
Dominant Progressive Retinal Atrophy	RHO	C>G	0	Clear
Dystrophic Epidermolysis Bullosa (Discovered in the Basset Hound)	COL7A1	Insertion	0	Clear
Dystrophic Epidermolysis Bullosa (Discovered in the Central Asian Ovcharka)	COL7A1	C>T	0	Clear
Early Adult Onset Deafness For Border Collies only (Linkage test)	Intergenic	Insertion	0	Clear
Early Retinal Degeneration (Discovered in the Norwegian Elkhound)	STK38L	Insertion	0	Clear
Early-Onset Adult Deafness (Discovered in the Rhodesian Ridgeback)	EPS8L2	Deletion	0	Clear
Early-Onset Progressive Polyneuropathy (Discovered in the Alaskan Malamute)	NDRG1	G>T	0	Clear

Other Conditions Tested (continued)

Genetic Condition	Gene	Risk Variant	Copies	Result
Early-Onset Progressive Polyneuropathy (Discovered in the Greyhound)	NDRG1	Deletion	0	Clear
Early-Onset Progressive Retinal Atrophy (Discovered in the Portuguese Water Dog)	Confidential	—	0	Clear
Early-Onset Progressive Retinal Atrophy, (Discovered in the Spanish Water Dog)	PDE6B	Deletion	0	Clear
Ehlers-Danlos Syndrome (Discovered in mixed breed)	COL5A1	G>A	0	Clear
Ehlers-Danlos Syndrome (Discovered in the Labrador Retriever)	COL5A1	Deletion	0	Clear
Epidermolytic Hyperkeratosis	KRT10	G>T	0	Clear
Episodic Falling Syndrome	BCAN	Insertion	0	Clear
Exercise-Induced Collapse	DNM1	G>T	0	Clear
Factor VII Deficiency	F7	G>A	0	Clear
Factor XI Deficiency	FXI	Insertion	0	Clear
Familial Nephropathy (Discovered in the English Cocker Spaniel)	COL4A4	A>T	0	Clear
Familial Nephropathy (Discovered in the English Springer Spaniel)	COL4A4	C>T	0	Clear
Fanconi Syndrome	FAN1	Deletion	0	Clear
Fetal Onset Neuroaxonal Dystrophy	MFN2	G>C	0	Clear
Focal Non-Epidermolytic Palmoplantar Keratoderma	KRT16	G>C	0	Clear
Generalized Progressive Retinal Atrophy (Discovered in the Schapendoes)	CCDC66	Insertion	0	Clear
Glanzmann Thrombasthenia Type I (Discovered in Great Pyrenees)	ITGA2B	C>G	0	Clear
Glanzmann Thrombasthenia Type I (Discovered in mixed breed dogs)	ITGA2B	C>T	0	Clear
Globoid Cell Leukodystrophy (Discovered in Terriers)	GALC	A>C	0	Clear
Globoid Cell Leukodystrophy (Discovered in the Irish Setter)	GALC	A>T	0	Clear
Glycogen Storage Disease Type Ia (Discovered in the German Pinscher)	G6PC	Insertion	0	Clear
Glycogen Storage Disease Type Ia (Discovered in the Maltese)	G6PC	G>C	0	Clear

Other Conditions Tested (continued)

Genetic Condition	Gene	Risk Variant	Copies	Result
Glycogen Storage Disease Type IIIa, (GSD IIIa)	AGL	Deletion	0	Clear
GM1 Gangliosidosis (Discovered in the Portuguese Water Dog)	GLB1	G>A	0	Clear
GM1 Gangliosidosis (Discovered in the Shiba)	GLB1	Deletion	0	Clear
GM2 Gangliosidosis (Discovered in the Japanese Chin)	HEXA	G>A	0	Clear
GM2 Gangliosidosis (Discovered in the Toy Poodle)	HEXB	Deletion	0	Clear
Hemophilia A (Discovered in Old English Sheepdog)	FVIII	C>T	0	Clear
Hemophilia A (Discovered in the Boxer)	FVIII	C>G	0	Clear
Hemophilia A (Discovered in the German Shepherd Dog - Variant 1)	FVIII	G>A	0	Clear
Hemophilia A (Discovered in the German Shepherd Dog - Variant 2)	FVIII	G>A	0	Clear
Hemophilia A (Discovered in the Havanese)	FVIII	Insertion	0	Clear
Hemophilia A (Discovered in the Labrador Retriever)	Confidential	—	0	Clear
Hemophilia B	FIX	G>A	0	Clear
Hemophilia B (Discovered in the Airedale Terrier)	FIX	Insertion	0	Clear
Hemophilia B (Discovered in the Lhasa Apso)	FIX	Deletion	0	Clear
Hereditary Ataxia (Discovered in the Belgian Malinois)	SLC12A6	Insertion	0	Clear
Hereditary Ataxia (Discovered in the Norwegian Buhund)	KCNIP4	T>C	0	Clear
Hereditary Calcium Oxalate Urolithiasis, Type 1	Confidential	—	0	Clear
Hereditary Elliptocytosis	SPTB	C>T	0	Clear
Hereditary Footpad Hyperkeratosis	FAM83G	G>C	0	Clear
Hereditary Nasal Parakeratosis (Discovered in the Greyhound)	SUV39H2	Deletion	0	Clear
Hereditary Nasal Parakeratosis (Discovered in the Labrador Retriever)	SUV39H2	A>C	0	Clear
Hereditary Vitamin D-Resistant Rickets Type II	VDR	Deletion	0	Clear

Other Conditions Tested (continued)

Genetic Condition	Gene	Risk Variant	Copies	Result
Hyperuricosuria	SLC2A9	G>T	0	Clear
Hypocatalasia	CAT	G>A	0	Clear
Hypomyelination	FNIP2	Deletion	0	Clear
Hypophosphatasia	Confidential	—	0	Clear
Ichthyosis (Discovered in the American Bulldog)	NIPAL4	Deletion	0	Clear
Ichthyosis (Discovered in the Great Dane)	SLC27A4	G>A	0	Clear
Inflammatory Myopathy (Discovered in the Dutch Shepherd Dog)	SLC25A12	A>G	0	Clear
Inflammatory Pulmonary Disease (Discovered in the Rough Collie)	AKNA	Deletion	0	Clear
Intestinal Cobalamin Malabsorption (Discovered in the Beagle)	CUBN	Deletion	0	Clear
Intestinal Cobalamin Malabsorption (Discovered in the Border Collie)	CUBN	Deletion	0	Clear
Intestinal Cobalamin Malabsorption (Discovered in the Komondor)	CUBN	G>A	0	Clear
Intestinal Lipid Malabsorption (Discovered in the Australian Kelpie)	ACSL5	Deletion	0	Clear
Junctional Epidermolysis Bullosa (Discovered in the Australian Cattle Dog Mix)	LAMA3	T>A	0	Clear
Junctional Epidermolysis Bullosa (Discovered in the Australian Shepherd)	LAMB3	A>G	0	Clear
Juvenile Cataract (Discovered in the Wirehaired Pointing Griffon)	FYCO1	Deletion	0	Clear
Juvenile Dilated Cardiomyopathy (Discovered in the Toy Manchester Terrier)	Confidential	—	0	Clear
Juvenile Encephalopathy (Discovered in the Parson Russell Terrier)	Confidential	—	0	Clear
Juvenile Laryngeal Paralysis and Polyneuropathy	RAB3GAP1	Deletion	0	Clear
Juvenile Myoclonic Epilepsy	DIRAS1	Deletion	0	Clear
L-2-Hydroxyglutaric aciduria (Discovered in the Staffordshire Bull Terrier)	L2HGDH	T>C	0	Clear
L-2-Hydroxyglutaric Aciduria (Discovered in the West Highland White Terrier)	Confidential	—	0	Clear
Lafora Disease (Linkage test)	NHLRC1	Insertion	0	Clear

Other Conditions Tested (continued)

Genetic Condition	Gene	Risk Variant	Copies	Result
Lagotto Storage Disease	ATG4D	G>A	0	Clear
Lamellar Ichthyosis	TGM1	Insertion	0	Clear
Laryngeal Paralysis (Discovered in the Bull Terrier and Miniature Bull Terrier)	RAPGEF6	Insertion	0	Clear
Leigh-like Subacute Necrotizing Encephalopathy (Discovered in the Yorkshire Terrier)	SLC19A3	Insertion	0	Clear
Lethal Acrodermatitis (Discovered in the Bull Terrier)	MKLN1	A>C	0	Clear
Leukodystrophy (Discovered in the Standard Schnauzer)	TSEN54	C>T	0	Clear
Ligneous Membranitis	PLG	T>A	0	Clear
Limb-girdle Muscular Dystrophy (Discovered in the Boston Terrier)	SGCD	—	0	Clear
Limb-girdle Muscular Dystrophy, Type L3 (Discovered in the Miniature Dachshund)	SGCA	G>A	0	Clear
Lung Developmental Disease (Discovered in the Airedale Terrier)	LAMP3	C>T	0	Clear
Macrothrombocytopenia (Discovered in Norfolk and Cairn Terrier)	TUBB1	G>A	0	Clear
May-Hegglin Anomaly	MYH9	G>A	0	Clear
MDR1 Medication Sensitivity	MDR1/ABCB1	Deletion	0	Clear
Microphthalmia (Discovered in the Soft-Coated Wheaten Terrier)	RBP4	Deletion	0	Clear
Mucopolysaccharidosis Type IIIA (Discovered in the Dachshund)	SGSH	C>A	0	Clear
Mucopolysaccharidosis Type IIIA (Discovered in the New Zealand Huntaway)	SGSH	Insertion	0	Clear
Mucopolysaccharidosis Type VII (Discovered in the Brazilian Terrier)	GUSB	C>T	0	Clear
Mucopolysaccharidosis Type VII (Discovered in the German Shepherd Dog)	GUSB	G>A	0	Clear
Mucopolysaccharidosis VI (Discovered in the Miniature Pinscher)	ARSB	G>A	0	Clear
Muscular Dystrophy (Discovered in the Cavalier King Charles Spaniel)	Dystrophin	G>T	0	Clear
Muscular Dystrophy (Discovered in the Landseer)	COL6A1	G>T	0	Clear

Other Conditions Tested (continued)

Genetic Condition	Gene	Risk Variant	Copies	Result
Muscular Dystrophy (Discovered in the Norfolk Terrier)	Dystrophin	Deletion	0	Clear
Muscular Dystrophy-Dystroglycanopathy (Discovered in the Labrador Retriever)	LARGE	C>T	0	Clear
Muscular Hypertrophy (Double Muscling)	MSTN	T>A	0	Clear
Musladin-Lueke Syndrome	ADAMTSL2	C>T	0	Clear
Myeloperoxidase Deficiency	MOP	C>T	0	Clear
Myotonia Congenita (Discovered in Australian Cattle Dog)	CLCN1	Insertion	0	Clear
Myotonia Congenita (Discovered in the Labrador Retriever)	CLCN1	T>A	0	Clear
Myotonia Congenita (Discovered in the Miniature Schnauzer)	CLCN1	C>T	0	Clear
Myotubular Myopathy	MTM1	A>C	0	Clear
Narcolepsy (Discovered in the Dachshund)	HCRTR2	G>A	0	Clear
Narcolepsy (Discovered in the Labrador Retriever)	HCRTR2	G>A	0	Clear
Nemaline Myopathy	NEB	C>A	0	Clear
Neonatal Cerebellar Cortical Degeneration	SPTBN2	Deletion	0	Clear
Neonatal Encephalopathy with Seizures	ATF2	T>G	0	Clear
Neuroaxonal Dystrophy (Discovered in Spanish Water Dog)	TECPR2	C>T	0	Clear
Neuroaxonal Dystrophy (Discovered in the Papillon)	PLA2G6	G>A	0	Clear
Neuroaxonal Dystrophy (Discovered in the Rottweiler)	VPS11	A>G	0	Clear
Neuronal Ceroid Lipofuscinosis 1	PPT1	Insertion	0	Clear
Neuronal Ceroid Lipofuscinosis 12 (Discovered in the Australian Cattle Dog)	ATP13A2	C>T	0	Clear
Neuronal Ceroid Lipofuscinosis 5 (Discovered in the Border Collie)	CLN5	C>T	0	Clear
Neuronal Ceroid Lipofuscinosis 7	MFSD8	Deletion	0	Clear
Neuronal Ceroid Lipofuscinosis 8 (Discovered in the Alpine Dachsbracke)	CLN8	Deletion	0	Clear

Other Conditions Tested (continued)

Genetic Condition	Gene	Risk Variant	Copies	Result
Neuronal Ceroid Lipofuscinosis 8 (Discovered in the Australian Shepherd)	CLN8	G>A	0	Clear
Neuronal Ceroid Lipofuscinosis 8 (Discovered in the English Setter)	CLN8	T>C	0	Clear
Neuronal Ceroid Lipofuscinosis 8 (Discovered in the Saluki)	CLN8	Insertion	0	Clear
Obesity risk (POMC)	POMC	Deletion	0	Clear
Osteochondrodysplasia	SLC13A1	Deletion	0	Clear
Osteochondromatosis (Discovered in the American Staffordshire Terrier)	EXT2	C>A	0	Clear
Osteogenesis Imperfecta (Discovered in the Beagle)	COL1A2	C>T	0	Clear
Osteogenesis Imperfecta (Discovered in the Dachshund)	SERPINH1	T>C	0	Clear
P2RY12-associated Bleeding Disorder	P2RY12	Deletion	0	Clear
Palmoplantar Hyperkeratosis (Discovered in the Rottweiler)	DSG1	Deletion	0	Clear
Paroxysmal Dyskinesia	PIGN	C>T	0	Clear
Persistent Müllerian Duct Syndrome	AMHR2	C>T	0	Clear
Phosphofructokinase Deficiency	PFKM	G>A	0	Clear
Pituitary Dwarfism (Discovered in the Karelian Bear Dog)	POU1F1	C>A	0	Clear
Polycystic Kidney Disease	PKD1	G>A	0	Clear
Prekallikrein Deficiency	KLKB1	T>A	0	Clear
Primary Ciliary Dyskinesia	CCDC39	C>T	0	Clear
Primary Ciliary Dyskinesia (Discovered in the Alaskan Malamute)	NME5	Deletion	0	Clear
Primary Lens Luxation	ADAMTS17	G>A	0	Clear
Primary Open Angle Glaucoma (Discovered in Basset Fauve de Bretagne)	ADAMTS17	G>A	0	Clear
Primary Open Angle Glaucoma (Discovered in Petit Basset Griffon Vendeen)	ADAMTS17	Insertion	0	Clear
Primary Open Angle Glaucoma and Lens Luxation (Discovered in Chinese Shar-Pei)	ADAMTS17	Deletion	0	Clear

Other Conditions Tested (continued)

Genetic Condition	Gene	Risk Variant	Copies	Result
Progressive Early-Onset Cerebellar Ataxia	SEL1L	T>C	0	Clear
Progressive Retinal Atrophy (Discovered in the Basenji)	SAG	T>C	0	Clear
Progressive Retinal Atrophy (Discovered in the Lapponian Herder)	IFT122	C>T	0	Clear
Progressive Retinal Atrophy (Discovered in the Lhasa Apso)	Confidential	—	0	Clear
Progressive Retinal Atrophy (Discovered in the Miniature Long Haired Dachshund)	RPGRIP1	Insertion	0	Clear
Progressive Retinal Atrophy (Discovered in the Papillon and Phalène)	CNGB1	Deletion	0	Clear
Progressive Retinal Atrophy (Discovered in the Shetland Sheepdog - BBS2 variant)	Confidential	—	0	Clear
Progressive Retinal Atrophy (Discovered in the Shetland Sheepdog - CNGA1 variant)	CNGA1	Deletion	0	Clear
Progressive Retinal Atrophy (Discovered in the Swedish Vallhund)	MERTK	Insertion	0	Clear
Progressive Retinal Atrophy 1 (Discovered in the Italian Greyhound)	Confidential	—	0	Clear
Progressive Retinal Atrophy Type III	FAM161A	Insertion	0	Clear
Protein Losing Nephropathy	NPHS1	G>A	0	Clear
Pyruvate Dehydrogenase Phosphatase 1 Deficiency	PDP1	C>T	0	Clear
Pyruvate Kinase Deficiency (Discovered in the Basenji)	PKLR	Deletion	0	Clear
Pyruvate Kinase Deficiency (Discovered in the Beagle)	PKLR	G>A	0	Clear
Pyruvate Kinase Deficiency (Discovered in the Pug)	PKLR	T>C	0	Clear
Pyruvate Kinase Deficiency (Discovered in the West Highland White Terrier)	PKLR	Insertion	0	Clear
QT Syndrome	KCNQ1	C>A	0	Clear
Renal Cystadenocarcinoma and Nodular Dermatofibrosis	FLCN	A>G	0	Clear
Rod-Cone Dysplasia 1	PDE6B	G>A	0	Clear
Rod-Cone Dysplasia 1a	PDE6B	Insertion	0	Clear

Other Conditions Tested (continued)

Genetic Condition	Gene	Risk Variant	Copies	Result
Rod-Cone Dysplasia 3	PDE6A	Deletion	0	Clear
Sensorineural Deafness (Discovered in the Rottweiler)	LOXHD1	G>C	0	Clear
Sensory Neuropathy	FAM134B	Insertion	0	Clear
Severe Combined Immunodeficiency (Discovered in Frisian Water Dogs)	RAG1	G>T	0	Clear
Severe Combined Immunodeficiency (Discovered in Russell Terriers)	PRKDC	G>T	0	Clear
Shaking Puppy Syndrome (Discovered in the Border Terrier)	Confidential	—	0	Clear
Skeletal Dysplasia 2	COL11A2	G>C	0	Clear
Spinocerebellar Ataxia (Late-Onset Ataxia)	CAPN1	G>A	0	Clear
Spinocerebellar Ataxia with Myokymia and/or Seizures	KCNJ10	C>G	0	Clear
Spondylocostal Dysostosis	HES7	Deletion	0	Clear
Spongy Degeneration with Cerebellar Ataxia (Discovered in Belgian Malinois - SDCA1)	KCNJ10	T>C	0	Clear
Spongy Degeneration with Cerebellar Ataxia (Discovered in Belgian Malinois - SDCA2)	ATP1B2	Insertion	0	Clear
Stargardt Disease (Discovered in the Labrador Retriever)	ABCA4	Insertion	0	Clear
Startle Disease (Discovered in Irish Wolfhounds)	SLC6A5	G>T	0	Clear
Startle Disease (Discovered in the Miniature American Shepherd)	Confidential	—	0	Clear
Succinic Semialdehyde Dehydrogenase Deficiency (Discovered in the Saluki)	ALDH5A1	G>A	0	Clear
Thrombopathia (Discovered in the Basset Hound)	RASGRP1	Deletion	0	Clear
Thrombopathia (Discovered in the Eskimo Spitz)	RASGRP1	—	0	Clear
Trapped Neutrophil Syndrome	VPS13B	Deletion	0	Clear
Van den Ende-Gupta Syndrome	SCARF2	Deletion	0	Clear
von Willebrand's Disease, type 1	VWF	G>A	0	Clear

Other Conditions Tested (continued)

Genetic Condition	Gene	Risk Variant	Copies	Result
von Willebrand's Disease, type 2	VWF	T>G	0	Clear
von Willebrand's Disease, type 3 (Discovered in the Kooiker Hound)	VWF	G>A	0	Clear
von Willebrand's Disease, type 3 (Discovered in the Scottish Terrier)	VWF	Deletion	0	Clear
von Willebrand's Disease, type 3 (Discovered in the Shetland Sheepdog)	VWF	Deletion	0	Clear
X-Linked Ectodermal Dysplasia	EDA	G>A	0	Clear
X-Linked Hereditary Nephropathy (Discovered in the Navasota Dog)	COL4A5	Deletion	0	Clear
X-Linked Hereditary Nephropathy (Discovered in the Samoyed)	COL4A5	G>T	0	Clear
X-Linked Myotubular Myopathy	MTM1	C>A	0	Clear
X-Linked Progressive Retinal Atrophy 1	RPGR	Deletion	0	Clear
X-Linked Progressive Retinal Atrophy 2	RPGR	Deletion	0	Clear
X-Linked Severe Combined Immunodeficiency (Discovered in the Basset Hound)	IL2RG	Deletion	0	Clear
X-Linked Severe Combined Immunodeficiency (Discovered in the Cardigan Welsh Corgi)	IL2RG	Insertion	0	Clear
X-Linked Tremors	PLP1	A>C	0	Clear
Xanthinuria (Discovered in a mixed breed dog)	Confidential	—	0	Clear
Xanthinuria (Discovered in the Cavalier King Charles Spaniel)	Confidential	—	0	Clear
Xanthinuria (Discovered in the Toy Manchester Terrier)	Confidential	—	0	Clear

Coat Color

Genetic Trait	Gene	Variant	Copies	Result
Fawn	ASIP	a^{y}	0	No effect
Recessive Black	ASIP	**a**	**1**	**Not black due to this variant**
Tan Points	ASIP	**a^{t}**	**2**	**Tan points possible**
Dominant Black	CBD103	**K^{B}**	**2**	**Black possible**
Sable (Discovered in the Cocker Spaniel)	Confidential	—	0	No effect
Mask	MC1R	E^{m}	0	No effect
Recessive Red (e1)	MC1R	**e^{1}**	**2**	**Cream to red coat likely**
Recessive Red (e2)	MC1R	e^{2}	0	No effect
Recessive Red (e3)	MC1R	e^{3}	0	No effect
Widow's Peak (Discovered in Ancient dogs)	MC1R	e^{A}	0	No effect
Widow's Peak (Discovered in the Afghan Hound and Saluki)	MC1R	E^{G}	0	No effect

Color Modification

Genetic Trait	Gene	Variant	Copies	Result
Cocoa (Discovered in the French Bulldog)	HPS3	co	0	No effect
Red Intensity	MFSD12	i	0	No effect
Dilution (d1) Linkage test	MLPH	d^{1}	0	No effect
Dilution (d2)	MLPH	d^{2}	0	No effect
Dilution (d3)	MLPH	d^{3}	0	No effect
Chocolate (basd)	TYRP1	b^{asd}	0	No effect
Chocolate (bc)	TYRP1	b^{c}	0	No effect
Chocolate (bd)	TYRP1	**b^{d}**	**1**	**Black features likely, chocolate possible**

Color Modification (continued)

Genetic Trait	Gene	Variant	Copies	Result
Chocolate (be)	TYRP1	b^{e}	0	No effect
Chocolate (bh)	TYRP1	b^{h}	0	No effect
Chocolate (bs)	TYRP1	b^{s}	0	No effect

Coat Patterns

Genetic Trait	Gene	Variant	Copies	Result
Piebald	MITF	**s^{p}**	**1**	**White markings possible**
Merle	PMEL	M	0	No effect
Harlequin	PSMB7	H	0	No effect
Saddle Tan	RALY	**-**	**1**	**Saddle possible**
Roan (Linkage test)	USH2A	T^{r}	0	No effect

Coat Length and Curl

Genetic Trait	Gene	Variant	Copies	Result
Long Hair (lh1)	FGF5	**lh^{1}**	**2**	**Long coat**
Long Hair (lh2)	FGF5	lh^{2}	0	No effect
Long Hair (lh3)	FGF5	lh^{3}	0	No effect
Long Hair (lh4)	FGF5	lh^{4}	0	No effect
Long Hair (lh5)	FGF5	lh^{5}	0	No effect
Curly Coat	KRT71	**C**	**2**	**Curly coat likely**

Hairlessness

Genetic Trait	Gene	Variant	Copies	Result
Hairlessness (Discovered in the Chinese Crested Dog) Linkage test	FOXI3	Hr^{cc}	0	No effect

Hairlessness (continued)

Genetic Trait	Gene	Variant	Copies	Result
Hairlessness (Discovered in the American Hairless Terrier)	SGK3	hr^{aht}	0	No effect
Hairlessness (Discovered in the Scottish Deerhound)	SKG3	hr^{sd}	0	No effect

Shedding

Genetic Trait	Gene	Variant	Copies	Result
Reduced Shedding	MC5R	sd	0	Seasonal shedder

More Coat Traits

Genetic Trait	Gene	Variant	Copies	Result
Hair Ridge	FGF3, FGF4, FGF19, ORAOV1	R	0	No effect
Furnishings	RSPO2	**F**	**1**	**Furnishings likely**
Albino	SLC45A2	c^{al}	0	No effect

Head Shape

Genetic Trait	Gene	Variant	Copies	Result
Short Snout (BMP3 variant)	BMP3	-	0	No effect
Short Snout (SMOC2 variant)	SMOC2	-	0	No effect

Eye Color

Genetic Trait	Gene	Variant	Copies	Result
Blue Eyes (Discovered in the Siberian Husky)	ALX4	-	0	No effect

Ears

Genetic Trait	Gene	Variant	Copies	Result
Floppy Ears	MSRB3	-	1	**Partially floppy ears more likely**

Extra Toes

Genetic Trait	Gene	Variant	Copies	Result
Hind Dewclaws (Discovered in Asian breeds)	LMBR1	DC-1	0	No effect
Hind Dewclaws (Discovered in Western breeds)	LMBR1	DC-2	0	No effect

More Body Features

Genetic Trait	Gene	Variant	Copies	Result
Back Muscle and Bulk	ACSL4	-	0	No effect
High Altitude Adaptation	EPAS1	-	0	No effect
Short Legs (Chondrodysplasia, CDPA)	FGF4	-	0	No effect
Short Legs (Chondrodystrophy, CDDY)	FGF4	-	0	No effect
Short Tail	T-box	T	0	Full tail length likely