ORTHOPEDIC FOUNDATION FOR ANIMALS, INC.

GLACIER ZEICHEN VON WOLF registered name

WHITE SWISS SHEPHERD

032093900044211 tattoo/microchip/DNA profile

application number

12/19/2019 date of report

2112114

DEGENERATIVE MYELOPATHY (DM): A/N, HETEROZYGOUS CARRIER, 1 COPY OF THE DM

These results are based on the laboratory report from EMBARK VETERINARY and the owner's certification that the sample provided was from the animal described above. The OFA registers these lab results, but cannot warrant the accuracy of the lab results.

KIAH MOROSS

HD191731 registration no.

4/22/2019

age at evaluation in months

BBS-DM40/7M-PI-CAR O.F.A. NUMBER

This number issued with the right to correct or revoke by the Orthopedic Foundation for Animals.

G.G.KELLER. D.V.M., M.S., DACVR CHIEF OF VETERINARY SERVICES

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ORTHOPEDIC FOUNDATION FOR ANIMALS, INC.

GLACIER ZEICHEN VON WOLF registered name

WHITE SWISS SHEPHERD

032093900044211 tattoo/microchip/DNA profile

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12/19/2019 date of report

KIAH MOROSS

RESULTS:

MULTIPLE DRUG RESISTANCE (MDR1): NORMAL/NORMAL

These results are based on the laboratory report from EMBARK VETERINARY and the owner's certification that the sample provided was from the animal described above. The OFA registers these lab results, but cannot warrant the accuracy of the lab results.

HD191731 registration no.

M

4/22/2019 date of birth

7

age at evaluation in months

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BBS-MD1-12/7M-PI-N/N O.F.A. NUMBER

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*For best printing results please use Chrome or IE.

Owner's Copy

PennHIP Report

Referring Veterinarian: Dr Matt Leara Clinic Name: Animal Clinic of Honolulu Email: animalclinicofhonolulu@gmail.com Clinic Address: 1048 Koko Head Ave

Honolulu, HI 96816

Phone: (808) 734-0255 Fax:(808) 735-1937

Patient Information

Client: Moross, Kiah Patient Name: Zeichen

Reg. Name:

PennHIP Num: 150576 Species: Canine

Date of Birth: 22 Apr 2019

Sex: Male
Date of Study: 11 Dec 2020

Date of Report: 17 Dec 2020

Tattoo Num:

Patient ID: 32654

Registration Num:

Microchip Num: 032093900044211 Breed: WHITE SWISS SHEPHERD DOG

Age: 20 months

Weight: 97.4 lbs/44.2 kgs Date Submitted: 15 Dec 2020

Findings

Distraction Index (DI): Right DI = 0.28, Left DI = 0.11.

Osteoarthritis (OA): No radiographic evidence of OA for either hip.

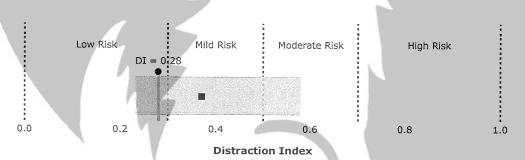
Cavitation/Other Findings: No cavitation present.

Interpretation

Distraction Index (DI): The laxity ranking is based on the hip with the greater laxity (larger DI). In this case the DI used is 0.28.

OA Risk Category: The DI is less than or equal to 0.30. This patient is at minimal risk for hip OA. Distraction Index Chart:

WHITE SWISS SHEPHERD DOG



BREED STATISTICS: This interpretation is based on a cross-section of 82 canine patients of the WHITE SWISS SHEPHERD DOG breed in the AIS PennHIP database. The gray strip represents the central 90% range of DIs (0.23 - 0.58) for the breed. The breed average DI is 0.37 (solid square). The patient DI is the solid circle (0.28).

SUMMARY: The degree of laxity (DI = 0.28) falls within the central 90% range of DIs for the breed. This amount of hip laxity places hip at a minimal risk to develop hip OA. No radiographic evidence of OA for either hip.

Orthopedic Foundation for Animals

Hip Dysplasia Evaluation Report



GLACIER ZEICHEN VON WOLF

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

WHITE SWISS SHEPHERD breed

film/test/lab #

032093900044211 tattoo/microchip/DNA profile

2112114 application number

12/17/2020 date of report

Owner

KIAH MOROSS

HD191731 registration no.

M sex

04/22/2019 date of birth

19

age at evaluation in months

Veterinarian

ANIMAL CLINIC OF HONOLULU 1048 KOKO HEAD AVE HONOLULU HI 96816

RADIOGRAPHIC EVALUATION OF PELVIC PHENOTYPE WITH RESPECT TO HIP DYSPLASIA

| EXCELLENT HIP JOINT CONFORMATION | BORDERLINE HIP JOINT CONFORMATION |
|---|---|
| superior hip joint conformation as compared with other individuals of the same breed and age | marginal hip joint conformation of indeterminate status with respect to hip dysplasia at this time Repeat study in six months |
| GOOD HIP JOINT CONFORMATION | MILD HIP DYSPLASIA |
| well formed hip joint conformation as compared with other individuals of the same breed and age | radiographic evidence of minor dysplastic changes of the hip joints |
| √ FAIR HIP JOINT CONFORMATION | MODERATE HIP DYSPLASIA |
| minor irregularities of the hip joint conformation as compared with other individuals of the same breed and age | 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 | unilateral pathology left right |
| remodeling of femoral head/neck | transitional vertebra |
| osteoarthritis/degenerative joint disease | spondylosis |
| shallow acetabula | panosteitis |
| acetabular rim/edge change | |
| 4411 | |
| AA Kellen DVM | |

Orthopedic Foundation for Animals

Elbow Dysplasia Evaluation Report



| GLACIER ZEICHEN | VON | WOLF |
|-----------------|-----|------|
| registered name | | |

WHITE SWISS SHEPHERD

breed

film/test/lab #

032093900044211

tattoo/microchip/DNA profile

2112114

application number

12/17/2020 date of report HD191731 registration no.

M sex

> 04/22/2019 date of birth

19

age at evaluation in months

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Owner

KIAH MOROSS

Veterinarian

ANIMAL CLINIC OF HONOLULU 1048 KOKO HEAD AVE HONOLULU HI 96816

RADIOGRAPHIC EVALUATION OF PHENOTYPE WITH RESPECT TO ELBOW DYSPLASIA

| 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 |
| | | |

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

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DNA Test Report

Dog Information

Glacier Zeichen Von Wolf (Glacier) Male
NAME SEX

White Shepherd April 22nd, 2019
GENETIC BREED DATE OF BIRTH

n/a n/a
REGISTRATION MICROCHIP

Kiah Y Moross OWNER NAME

Canine Genetic Health Screen

TEST

December 4th, 2019

TEST DATE

BREED HEALTH TESTS

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

| DISEASE | GENE | GENOTYPE | RESULT |
|---|--------------------|----------|-----------|
| Canine Leukocyte Adhesion Deficiency Type III, LAD3 | FERMT3 | NN | Clear |
| Degenerative Myelopathy, DM | SOD1 | GA | Carrier 🕥 |
| MDR1 Drug Sensitivity | MDR1 | NN | Clear |
| Achromatopsia | CNGA3 (Exon 7 SNP) | СС | Clear |
| Factor VIII Deficiency, Hemophilia A | F8 Exon 1 | GY | Clear |
| Factor VIII Deficiency, Hemophilia A | F8 Exon 11 | GY | Clear |
| Hyperuricosuria and Hyperuricemia or Urolithiasis, HUU | SLC2A9 (Exon 5) | cc | Clear |
| Mucopolysaccharidosis Type VII, Sly Syndrome, MPS VII | GUSB | GG | Clear |
| Renal Cystadenocarcinoma and Nodular Dermatofibrosis, RCND | FLCN | GG | Clear |
| X-linked Ectodermal Dysplasia, Anhidrotic Ectodermal Dysplasia | EDA | GY | Clear |
| Collie Eye Anomaly, Choroidal Hypoplasia, CEA | NHEJ1 (Intron 4) | ND | Carrier |

embark

DNA Test Report

Dog Information

Glacier Zeichen Von Wolf (Glacier)

TRAIT TESTS (1/2)

| TRAIT TESTS (1/2) | | |
|---|--|-------------------------------|
| Coat Color | | RESULT |
| E Locus (MC1R) | No dark mask or grizzle | Ee |
| K Locus (CBD103) | More likely to have a patterned haircoat | k ^y k ^y |
| A Locus (ASIP) | Agouti (Wolf Sable) coat color pattern | a ^w a |
| D Locus (MLPH) | Dark areas of hair and skin are not lightened | DD |
| B Locus (TYRP1) | Black or gray hair and skin | ВВ |
| Saddle Tan (RALY) | Not expressed | NI |
| M Locus (PMEL) | No merle alleles | mm |
| Other Coat Traits | | RESULT |
| Furnishings (RSPO2) LINKAGE | Likely unfurnished (no mustache, beard, and/or eyebrows) | - 11 |
| Coat Length (FGF5) | Likely long coat | тт |
| Shedding (MC5R) | Likely heavy/seasonal shedding | СС |
| Coat Texture (KRT71) | Likely straight coat | СС |
| Hairlessness (SGK3) | Very unlikely to be hairless | NN |
| Hairlessness (FOXI3) LINKAGE | Very unlikely to be hairless | NN |
| Oculocutaneous Albinism Type 2 (SLC45A2) LINKAG | E Likely not albino | NN |
| Other Body Features | | RESULT |
| Muzzle Length (BMP3) | Likely medium or long muzzle | CC |
| Tail Length (T) | Likely normal-length tail | CC |
| | embark | |

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DNA Test Report

Dog Information

Glacier Zeichen Von Wolf (Glacier)

NAME

TRAIT TESTS (2/2)

RESULT **Body Size** Body Size (IGF1) NN Larger Body Size (IGFR1) Larger GG **Body Size (STC2)** Larger TT Body Size (GHR - E195K) Larger GG Body Size (GHR - P177L) Larger CC RESULT Performance Altitude Adaptation (EPAS1) GG Normal altitude tolerance RESULT **Genetic Diversity Coefficient Of Inbreeding** 34% High MHC Class II - DLA DRB1 Diversity High MHC Class II - DLA DQA1 and DQB1 Diversity







