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**Report**

No.: 1905-W-24194  
Date of arrival: 02-05-2019  
Testing started: 02-05-2019  
Date of report: 13-05-2019  
Testing completed: 13-05-2019

Patient identification:	Dog	Female	* 14.03.19
	Collie (Kurzhaar/Langhaar)		
Owner / Animal-ID:	Lahti, Jorma		
Type of sample:	EDTA-Blood		
Date sample was taken:	25-04-2019		

Name: **Millake's Halcyon Florence**  
Stud book no.: ---  
Chip no.: **981098106891067**  
Tattoo no.: ---

**Degenerative Myelopathy - PCR**

Result: Genotype N/DM (exon 2)

Interpretation: The examined animal is heterozygous for the high-risk factor for DM in exon 2 of the SOD1-gene.

Trait of inheritance: autosomal-recessive

Please note: In the Bernese Mountain Dog breed the mutation in exon 1 of the SOD1-gene also occurs in correlation with DM.

**Hyperuricosuria - PCR**

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for

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HUU in the SLC2A9-gene.

Trait of inheritance: autosomal-recessive

**rcd2-PRA - PCR**

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for rcd2-PRA in the RD3-gene.

Trait of inheritance: autosomal-recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds: Collie

**\*MDR1 genetic test - PCR**

Result: Genotype N/MDR (+/-)

Interpretation: The examined animal is heterozygous for the causative mutation for MDR in the ABCB1-gene.

Trait of inheritance: autosomal-recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds: Australian Shepherd, Border Collie, Elo, German Shepherd, Longhaired Whippet, McNab, Old English Sheepdog, Rough/Smooth Collie, Shetland Sheepdog, Silken Windhound, Weller, White Shepherd

The DNA-test is run according to the publication of Mealey et al. (2001) "Ivermectin sensitivity in collies is associated with a deletion mutation of the mdr1 gene." and detects the mutation MDR1 nt230 (del4).

MDR1 genetic test carried out according to DIN EN ISO/IEC 17025 in our partnerlaboratory. Liability for specification of samples (e.g. name, identity of animal) lies by the sender.

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**\*Collie Eye Anomaly (CEA) - PCR**

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for CEA in the NHEJ1-gene.

Trait of inheritance: autosomal-recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds: Australian Shepherd, Bearded Collie, Border Collie, Boykin Spaniel, Hokkaido, Lancashire Heeler, Longhaired Wippet, Nova Scotia Duck Tolling Retriever, Rough/Smooth Collie, Shetland Sheepdogs, Silken Windhound

**Sampling:**

The following impartial person (veterinarian, breed warden, or similar) signed the form for the sampling and identity check of the animal:

**Sari Jalomäki**

The current result is only valid for the sample submitted to our laboratory. The sender is responsible for the correct information regarding the sample material. The laboratory can not be made liable. Furthermore, any obligation for compensation is limited to the value of the tests performed.

There is a possibility that other mutations may have caused the disease/phenotype. The analysis was performed according to the latest knowledge and technology.

The laboratory is accredited for the performed tests according to DIN EN ISO/IEC 17025:2005. (except partner lab tests).

\*\*\* END of report \*\*\*

Fr. MSc Michelle Meißler  
Abt. Molekularbiologie

\*: test performed by partnerlaboratory