

Mr. LABOKLIN GmbH&CoKG Antonio Bustorff Steubenstraße 4 Pedro de Sintra No. 121 DE-97688 Bad Kissingen 2750- 186 Cascais Fax-Nr.: +49 971 68546 Portugal Tel.: +49 971 72020 Report No.: 1907-W-73597 Date of arrival: 01-07-2019 Testing started: 01-07-2019 Date of report: 02-07-2019 Testing completed: 02-07-2019 +-----_____+ | Patient identification: Dog Male * 25.10.16 | Rhodesian Ridgeback | Owner / Animal-ID: Bustorff, Antonio | Type of sample: Swab | Date sample was taken: 21-06-2019 *------Parameter Value Reference value Name: Bengo ZB-LOP 566175 Nummer: Chip-Nummer: 941000019726939 Tattoo-Nummer: --Degenerative Myelopathy - PCR Result: Genotype N/N (exon 2) Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry 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. Hemophilia B (Factor IX) - PCR Result: Genotype female X(N)/X(N), male X(N)/Y Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for Hemophilia B in the FIX-gene. Trait of inheritance: X chromosomal-recessive

Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds: Rhodesian Ridgeback Juvenile Myoclonic Epilepsy (JME) Result: Genotype N/N Interpretation: The examined animal is homozygous for the wildtype-allele. It does not carry the causative mutation for JME in the DIRAS1-gene. Trait of inheritance: autosomal-recessive Scientific studies found correlation between the mutation and symptoms of the disease in the following breeds: Rhodesian Ridgeback D-locus D1 (dilution) Result: Genotype D/D Interpretation: The examined animal is homozygous for the D-allele. The test detects the alleles D and d. Allelic series: D dominant over d Please note: A further causative mutation for dilution (d2) has been found in the following bree ds: Chow Chow, Sloughi, Thai Ridgeback The additional mutation might be responsible for dilution in further breeds. B-locus (brown, chocolate, liver(nose)) The genetic analysis of the B-locus includes the four recessive, causative variants described so far as the alleles bd, bc, bs, and b4 as well as the dominant form as allele B. Variant bd Result for bd: Genotype B/B Interpretation: No bd-allele was found for this sample. Variant bc Result for bc: Genotype B/B Interpretation: No bc-allele was found for this sample. Variant bs Result for bs: Genotype B/B Interpretation: No bs-allele was found for this sample. Variant b4

Result for b4: Genotype B/B Interpretation: No b4-allele was found for this sample.

Allelic series: B dominant over bd, bc, bs and b4

If the animal is homozygous for the causative variant, black pigment (eumelanin) is lightened, and the animal appears brown in the areas that were originally black. If the animal is heterozygous for several causative variants, it is not possible to determine to what degree these will influence the eumelanin. Dark areas may be black or brown.

Presumably, more genetic variants causing brown fur in French Bulldogs, Yorkshire Terriers and similar small breeds exist. Those variants cannot be analyzed by any genetic test yet.

Sampling:

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

Catarina for Barreto / Gomes Cardoso

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 cannot 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