

## Result certificate #012345

Detection of c.1726del mutation in LMNA gene causing DCM in Nova Scotia Duck Tolling Retrievers

Customer: Jan Novák, Dlouhá 1, 30000 Plzeň, Czech Republic

Sample: Sample: 21-12345 Date received: 01.02.2021 Sample type: blood

## Information provided by the customer Name: Lassie DEMO Breed: Plemeno

Tattoo number: 1392013 Microchip: 123 456 789 012 345 Reg. number: REGQ12345 Date of birth: 1.1.2020 Sex: female Date of sampling: 01.02.2021 The identity of the animal has been checked.

## Result: Mutation was not detected (N/N)

**Legend:** N/N = wild-type genotype. N/P = carrier of the mutation. P/P = mutated genotype (individual will be most probably affected with the disease). (N = negative, P = positive)

## Explanation

Presence or absence of c.1726del mutation in LMNA gene causing Dilated cardiomyopathy (DCM) in Nova Scotia Duck Tolling Retrievers was tested. DCM is a heart disease characterized by expanded heart chambers and weaked of the heart muscle, leading to a deterioration in the ability of the heart to pump blood. It is manifested by fatigue, weakness and shortness of breath and usually ends in death in young individuals. Sometimes sudden death may occur without previous signs of the disease.

Mutation that causes DCM is inherited autosomally recessively which means that the disease develops only in those dogs who inherit mutated allele from both parents; disease affects dogs with P/P genotype only. The dogs with N/P genotype are considered carriers of the disease (heterozygotes). In offspring of two heterozygous animals following genotype distribution can be expected: 25 % N/N, 25 % P/P and 50 % N/P.

Method: SOPAgriseq\_canine, ngs

Date of issue: 06.02.2021 Date of testing: 01.02.2021 - 06.02.2021 Approved by: Mgr. Martina Šafrová, Laboratory Manager



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