

ORTHOPEDIC FOUNDATION FOR ANIMALS, INC.

ALESHANEE KIRAN
registered name

NOVA SCOTIA DUCK TOLLING RET.
breed

756098100505594CHE
tattoo/microchip/DNA profile

1556289
application number

3/4/2013
date of report

RESULTS:

JUVENILE ADDISON'S DISEASE (JADD): N/N, 2 NORMAL COPIES OF THE JADD REGION,
PROBABLE NORMAL

owner

MANUELA KELLER
IM CHRUEZACHER 22
8306 BRUETTISELLEN, ZH
SWITZERLAND

SHAB695131
registration no.

M
sex

8/27/2010
date of birth

29
age at evaluation in months

DTR-JAD391/29M-PI
O.F.A. NUMBER

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



A Not-For-Profit Organization



GA Keller DVM

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

1223681

www.offa.org



JUVENILE ADDISON'S DISEASE (JADD)

Your dog has been tested for markers near JADD including the probable mutation responsible for Juvenile Addison's disease based on a DNA sample submission. The enclosed report lists the laboratory findings.

Explanation of results:

The test currently offered test for multiple markers in the region associated with JADD and includes the probably disease causing mutation. Further research is needed to determine how the mutation causes Addison's disease. Until the mutation is confirmed with functional data the designation will be one of "Probable".

JADD Probable N/N: This dog has two **normal** copies of the *JADD* region. This dog will not get the specific form of juvenile onset Addison's disease identified by this test. There are other forms of Addison's disease in the breed. This dog can only transmit the normal gene to its offspring, and therefore will not produce offspring with this form of Addison's disease.

JADD Probable N/A: This dog has one mutant (abnormal) copy of the *JADD* region and is classified as a carrier. No dogs that are carriers have ever been reported with juvenile onset Addison's disease. This dog can transmit either the normal copy of the region or the abnormal copy to its offspring.

JADD Probable A/A: This dog has two mutant (abnormal) copies of the *JADD* region and has a 75% chance of developing Addison's disease by 1 year of age.

Guidelines for Breeding

JADD is inherited as an autosomal recessive disease meaning that animals have only one mutant copy of the region (N/A) are normal but they are carriers of the disease and they can produce affected puppies if bred to an affected dog (A/A) or another carrier (N/A). In addition, *JADD* is not completely penetrant meaning that not all puppies with two copies of the mutation will go on to develop the disease. Based upon our research, approximately 75% of puppies with two copies of the mutation and haplotype will develop Addison's disease.

At the time that this test was released approximately 20% of Tollers carry *JADD* (N/A); however, the number of carriers can change with each generation. Dogs that are carriers (N/A) are normal themselves and can be safely bred to N/N dogs in order to maintain diversity within the breed and select for other positive attributes in carrier dogs.

If you have a dog identified as being A/A or having early onset Addison's disease (<1 year old) and you would like to participate in further research to understand this disease please contact Danika Bannasch DVM PhD, dlbannasch@ucdavis.edu.