

Diagnostic Marker for Chondrodystrophy and Intervertebral Disk Disease Susceptibility in Canines

Tech ID: 28965 / UC Case 2017-746-0

ABSTRACT

Researchers at the University of California, Davis, have developed a diagnostic method to identify dogs that are at risk for chondrodystrophy and/or intervertebral disc disease.

FULL DESCRIPTION

Chondrodystrophy (CDDY) and Intervertebral Disc Disease (IVDD) in dogs are a common problem with symptoms ranging from mild pain to complete paralysis. They are strongly associated with short-legged dogs such as the Basset Hound, Beagle, Cardigan Welsh Corgi, Chesapeake Bay Retriever, Chihuahua, etc. CDDY and IVDD, however, can be difficult to diagnose without expensive and sophisticated tests. Although early detection methods are available, there has been no way to identify dogs that are genetically predisposed and thus at risk to develop IVDD.

Researchers at the University of California, Davis, have discovered a change within canine DNA that shows a distinct association with the presence of CDDY and IVDD in dogs. The newly detected marker will enable labs, vets or dog breeders to test for a genetic susceptibility IVDD and may aid in eliminating the disease in future generations.

APPLICATIONS

- Canine chondrodystrophy
- ▶ Intervertebral Disk Disease susceptibility in canines

FEATURES/BENEFITS

- ▶ Genetic detection
- ▶ Highly associated with the disease and segregation across many dog breeds

RELATED MATERIALS

▶ Emily A. Brown, Peter J. Dickinson, Tamer Mansour, Beverly K. Sturges, Miriam Aguilar, Amy E. Young, Courtney Korff, Jenna Lind, Cassandra L. Ettinger, Samuel Varon, Rachel Pollard, C. Titus Brown, Terje Raudsepp, and Danika L. Bannasch. FGF4 retrogene on CFA12 is responsible for chondrodystrophy and intervertebral disc disease in dogs. PNAS 2017 114 (43) 11476-11481; published ahead of print October 11, 2017, doi:10.1073/pnas.1709082114 - 10/11/2017

PATENT STATUS

Country Type Number Dated Case

CONTACT

Victor Haroldsen haroldsen@ucdavis.edu tel: 530-752-7717.



INVENTORS

- ▶ Bannasch, Danika L.
- ▶ Dickinson, Peter J.
- Ryan, Emily A.

OTHER INFORMATION

KEYWORDS

IVDD, dog, inherited, chondrodystrophy, genetic, CDDY, intervertebral disc disease, short-legged, canine, DNA, genetic marker, diagnostic

CATEGORIZED AS

- Veterinary
 - ► Companion
 Animal
 - Diagnostics

RELATED CASES

2017-746-0

United States Of America **Issued Patent** 11,761,042 09/19/2023 2017-746

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

► Test for Hereditary Equine Regional Dermal Asthenia (HERDA)

University of California, Davis

530.754.8649

California

Technology Transfer Office

Davis, CA 95616

1 Shields Avenue, Mrak Hall 4th Floor,

techtransfer@ucdavis.edu https://research.ucdavis.edu/technologyTerms of use

Privacy Notice

transfer/

Fax:

Tel:

530.754.7620