

# Diagnostic Marker for Chondrodystrophy and Intervertebral Disk Disease Susceptibility in Canines

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## 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

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## INVENTORS

- ▶ Bannasch, Danika L.
- ▶ Dickinson, Peter J.
- ▶ Kotelnicki, 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

Country	Type	Number	Dated	Case
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ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

► [Test for Hereditary Equine Regional Dermal Asthenia \(HERDA\)](#)

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