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Tests for Polycystic Kidney Disease in Domestic Cats

Tech ID: 11315 / UC Case 2004-447-0

ABSTRACT

DNA Mutation Tests for PKD in domestic cats.

FULL DESCRIPTION

DNA mutation tests for polycystic kidney disease in domestic cats have been developed by University of California, Davis researchers. Currently, polycystic kidney disease affects approximately 40% of the Persian cat population. In addition, this disease has spread to other breeds, and is the most prominent inherited feline disease. Onset of the polycystic kidney disease is variable and high cost ultrasound techniques are not 100% accurate and require additional visits to veterinarian specialists for diagnosis.

Using direct DNA sequencing, University investigators have identified a causative mutation in the feline PKD1 gene allowing for early detection of this dominant disease.

APPLICATIONS

- ▶ Polycystic kidney disease test in companion animal species (such as domestic cats)
- ▶ Development of better drug and gene therapies for polycystic kidney disease

FEATURES/BENEFITS

- ▶ Non-invasive, lower cost DNA methods for diagnosis;
- ▶ Carrier detection at time of birth;
- ▶ Small required amount of DNA for testing; and,
- ▶ More informed breeding decisions.

RELATED MATERIALS

- ▶ Lyons LA, Biller DS, Erdman CA, Lipinski MJ, Young AE, Roe BA, Qin B, Grahn RA. 2004. Feline polycystic kidney disease mutation identified in PKD1. J Am Soc Nephrol. 15(10):2548-55.
- ▶ Also see The Lyons' Den at <http://www.vetmed.ucdavis.edu/Catgenetics/Index.htm>

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	7,141,376	11/28/2006	2004-447

RELATED TECHNOLOGIES

- ▶ [Carrier Tests for Point-Restriction Coat Color in the Domestic Cat](#)
- ▶ [Genetic Test for Determining Blood Type in Domestic Cats](#)

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- ▶ [Genetic Test for Determining Blood Type in Domestic Cats](#)
- ▶ [Carrier Tests for Point-Restriction Coat Color in the Domestic Cat](#)

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INVENTORS

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- ▶ Lyons, Leslie A.

OTHER INFORMATION

KEYWORDS

PKD, polycystic kidney disease, cats, tests

CATEGORIZED AS

- ▶ **Veterinary**
- ▶ Diagnostics

RELATED CASES

2004-447-0

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