HYPERTROPHIC CARDIOMYOPATHY IN PERSIAN CATS

PROJECT STUDY: Evaluation of DNA variants associated with hypertrophic cardiomyopathy in the Persian cat.

Principal Investigator: Kathryn M. Meurs, DVM, PhD, DACVIM; North Carolina State University

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After completing sequencing from the DNA of 7 affected Persians, Dr. Meur’s research group identified 274,202 DNA variants that could be associated with the development of hypertrophic cardiomyopathy in the Persian. They sorted these variants based on genetic importance and the importance of the gene in the heart. They also evaluated the most promising variants in the laboratory by looking at them in additional affected Persians, unaffected Persians and unaffected non-Persians.

Unfortunately they have not identified a single variant that explains the presence of this disease in all affected Persians. The research group has found many that might explain the disease in some but not all Persians. This suggests that the breed very likely has at least two separate mutations that both can lead to the development of this disease. Although this does make this a more complicated problem, it is not insurmountable. They are now relooking at all of the data and trying to identify variants that are solid enough to believe they develop the disease in at least some cats. At this time they have not requested any additional funding but will continue to manipulate the data. As always, Dr. Meur’s greatly appreciates the support and dedication of the Winn Feline Foundation and the donors. They are very optimistic that somewhere within the data that they have exists a few Persian Cat HCM variants. They just need to be able to put the puzzle together.

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