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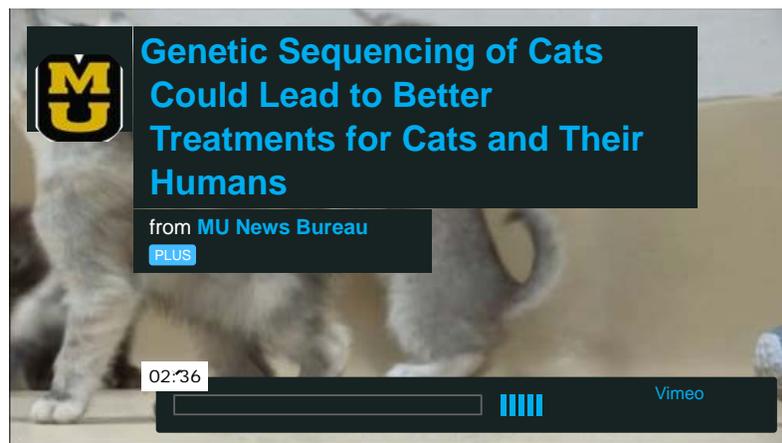
## Genetic Sequencing of Cats Could Lead to Better Treatments for Cats and Their Humans

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COLUMBIA, Mo. – Within the last few months, scientists have completed the first-ever genetic sequencing of a cat. Now, scientists at the **University of Missouri** are searching for ways to fund the genetic sequencing of more cats through a project called “99 Lives.” Leslie Lyons, the Gilbreath-McLorn Endowed Professor of Comparative Medicine in the MU College of Veterinary Medicine, says cats suffer from many of the same genetic diseases as humans, and if scientists can sequence the genes of more cats, they can gain a better understanding of how to treat these diseases in cats and in humans.



**VIDEO: [Genetic Sequencing of Cats Could Lead to Better Treatments for Cats and Their Humans](#)**

*This video is available for broadcast quality download and re-use. For more information, contact Nathan Hurst: [hurstn@missouri.edu](mailto:hurstn@missouri.edu).*

“Many cats suffer from obesity, diabetes, asthma, urinary tract infections, cancers, heart disease and infectious diseases, just like humans,” Lyons said. “The responsible DNA variations for any individual birth defect or inherited condition that affects health later in life can now be identified in any individual cat. Tens of thousands of humans and hundreds of dogs have had full genome sequencing, which has helped create a robust, diverse genetic map for those species; however, we currently only have one cat’s genetic map to study. The more cats we can genetically sequence, the better we will understand what causes many genetic disorders and possibly even how to prevent those problems.”

Scientists at MU only need a small amount of blood to sequence the genes of individual cats. However, because the process is complicated and time-consuming, it costs more than \$7,000 to complete a full gene sequence of each cat. Lyons hopes that if she can raise enough money from private donors to help fund the research, she can sequence close to 100 cats. Lyons says that small donations are as important as large ones.

“We are targeting the number of 100 (or 99) cats to be sequenced because that number would really help us

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understand the normal and positive genetic variations of cats,” Lyons said. “This will allow us to more easily find the negative genetic variants that cause health problems and disease. The more genetic variations we can identify, the better we can isolate the causes of different genetic problems.”

Lyons says the 99 Lives project is interested in sequencing the DNA of all kinds of cats, from house cats to large felines like bobcats, palace cats and even tigers. She says that interested donors can not only give money to help fund the project, but also can donate DNA samples of their own cats to help the cause.

Lyons hopes to raise nearly \$500,000 for the project. She and her colleagues have currently raised more than \$370,000 but are still looking for about \$120,000 more. To find out more information about the 99 Lives project or to donate money, visit: <http://felinegenetics.missouri.edu/99lives>

This project is a result of collaboration through the One Health, One Medicine area of Mizzou Advantage. Mizzou Advantage is a program that focuses on four areas of strength: food for the future, media of the future, one health, one medicine, and sustainable energy. The goals of Mizzou Advantage are to strengthen existing faculty networks, create new networks and propel Mizzou’s research, instruction and other activities to the next level.

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