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MISSOURIAN Columbia, Missouri

lams rewards MU lab for sparing dogs' lives

The lab has focused on using test tubes rather than live animals.

By CRISTOF TRAUDES August 12, 2005

An MU lab's studies of osteoarthritis in dogs without the use of live animals has earned it nearly a half million dollars from lams Co., the international dog and cat food producer.



The Comparative Orthopaedic Laboratory, part of MU's College of Veterinary Medicine, researches osteoarthritis, a deterioration of the joints, and other cartilage disorders in dogs, horses and humans. Its researchers have attempted to work with as few live animals as possible, said Derek Fox, the lab's associate director. Instead, the lab has emphasized studying the disease in vitro, or in test-tube models.

"One of our early goals was to try to minimize the amount of animal testing," Fox said. "It spares a tremendous number of animals' lives."

This goal triggered lams' interest in donating, said Kurt Iverson, spokesman for the company. He said the MU lab's in vitro research fit the company's mission of enhancing the well-being of dogs and cats.

The \$461,203 gift, which the lab is receiving in payments over five years, will be used to fund a new research assistant professor, said James Cook, director of the lab.

The lab already has about 20 active researchers. They collaborate with other researchers across the country and have relationships with several major orthopedic companies, Cook said.

Cook said research on osteoarthritis can be done in three ways. The first is to make observations on patients already suffering from the disease. The second is to induce osteoarthritis in live subjects. The last way is to study the disease in vitro.

Cook said that in the lab's in vitro models, the researchers grow cells and tissue, place them into test tubes and study their reactions under different conditions. These conditions include inducing arthritis and simulating stresses put on cells and tissue during physical activity. The lab not only looks at reactions, but sees how the cells can be influenced to help treat arthritis.

The lab is not the first or only in the nation to study osteoarthritis in vitro. However, Cook said, the lab is unique because it compares its findings with the results of the other types of research. Without doing so, the findings would simply be test-tube results and possibly not represent real-world statistics.

Although it's sometimes inevitable to use live animal testing, Fox said, there are several

advantages to studying arthritis in vitro. He noted that along with sparing the lives of animals, utilizing in vitro studies is a more ethical approach and can be more cost effective than other types of studies.

Dogs aren't the only beneficiaries of the research.

"The disease processes in dogs are very similar to humans," Fox said. Because of this, research on osteoarthritis in dogs can also benefit humans.

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