Pesky parasite proves problematic

BY KATE JORDAN

**feline research could prevent chronic diarrhea**

As many cat lovers know, diarrhea can be a common occurrence for their furry companions. Feline diarrhea has many possible causes, but thanks to Dr. Jody Gookin, an assistant professor at North Carolina State University’s College of Veterinary Medicine, today we know that large-bowel diarrhea is typically the result of the *Tritrichomonas foetus* parasite. The discovery grew from Dr. Gookin’s attempts to solve one cat’s ongoing health issue.

“A cat had a very unusual parasite, and we wondered, ‘Could this parasite be responsible for the cat’s diarrhea?’” says Dr. Gookin. “This question has turned into more than 10 years of research on the *T. foetus* agent!”

Significantly more common in young, purebred cats from shelters and catteries, *T. foetus* can cause chronic diarrhea lasting up to two years, and some cats are infected for life. A major problem in treating this health problem has been the lack of safe, effective medicine. The current protocol is to let the diarrhea run its course or to use a 5-nitroimidazole drug (ronidazole, metronidazole or tinidazole), but these drugs have been ineffective or toxic to cats.

In a current Morris Animal Foundation–funded study, Dr. Gookin is examining how the *T. foetus* pathogen causes diarrhea. She is also screening certain drugs that may help prevent infection. She is working closely with Dr. Katie Tolbert, a clinical investigator at North Carolina State, to develop a complicated cell-culture model in which to study the parasite.

By growing feline intestinal cells in the model, treating them with *T. foetus* and then studying how the parasite adheres to the cells, the researchers can test whether a drug will block that pathogen’s attachment and therefore reduce the incidence of diarrhea.

“I feel so fortunate that the Foundation supports quality veterinary research for companion animals and wildlife,” says Dr. Gookin, “because without them, it just wouldn’t happen.”

Morris Animal Foundation is thankful for pioneers like Dr. Gookin. Not only will her research on *T. foetus* benefit felines suffering from diarrhea but her team’s development of a cell-culture model may also establish a standard by which other feline gastrointestinal diseases will one day be studied—and eventually cured.

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