

Development of Feline Infectious Peritonitis

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Feline Infectious Peritonitis (FIP) is a very common virus among cats, especially in homes with multiple cats and shelters. FIP affects many cats and there is no cure. In addition, the vaccine does not really protect against this virus. A blood test only tells us if the cat has been exposed to the coronavirus, but it doesn't tell us if the cat has the strain that causes FIP. We do not know if a cat has FIP until they show clinical signs. There is also no treatment for FIP making it a fatal disease for cats. There is also no specific age of cat that gets effected and it is heartbreaking to adopt out a kitten to someone only to have it die a year or two later. FIP is a disease that needs to be researched to great lengths and therefore the proposal is to establish a feline FIP incidence/treatment/mortality database site. There is an opportunity to discover possible regional differences, breed-related differences, treatment related differences, and management/husbandry differences. This database would be a great opportunity to find out if there are regions that are less likely to have cats with FIP or if there are certain breeds that have immunity to the virus. This project could help us to establish a better understanding of FIP and help prevent it. This database could be a way to track regional differences, breed related differences, treatment related differences and/or management/husbandry differences. Discovery of any breed or gender related variables that influence the pathogenesis of FIP could lead to the discovery of functional proteins and biochemically active enzyme systems that confer resistance. We hope to get enough national responses to our survey that we are able to find some type of resistance to FIP. If this was the case, we could do further research in the lab to develop a more efficient vaccine for this disease.

Our goal for this database is to be able to find a cat(s) that show some resistance to FIP. All the answers to the survey will get compiled and organized. We will be monitoring the answers as they come in to see if there is any significant information found. If we are able to find even one cat that has not been infected with FIP we could request blood samples from that cat to try to isolate certain proteins and perhaps develop a new vaccine that will be efficient at preventing the virus in other cats.

The only materials needed were internet, email and the database software. Dr. Coyne and I came up with a list of survey questions that we felt would help us reach our goal. We then decided how we wanted the survey page to look and handed over our question list to the MSU-CVM IT department. The IT department turned our questions into a survey based database. The survey link was then sent to over 500 veterinarians and organizations across the United States.

We have had some responses to our survey. We have not received any information that will be beneficial to us yet, but we are confident that as more people complete the survey we will find valuable information that will help lead to future bench top research of the FIP virus.

In conclusion, a survey-based database has been created in hopes to find cat breed/regional differences where resistance to FIP is shown. We have sent the survey to hundreds of veterinary clinics and organizations nationwide and are confident that many people will participate in our survey. Once all the data is compiled we will look at it to determine if there are any cats that can be identified as possibly resistant to FIP. Biological samples can then be taken from these cats and proteins can be isolated in the lab. FIP is a fatal disease that can infect cats of all ages. The reason for the creation of this database is to get more people thinking about the disease and hopefully to discover something that could lead to either a cure or an effective vaccine. I would like to give a special thanks to the American Humane Association for accepting me into the veterinary student scientist program and to my donor for making the research possible.