



Investigating New Biomarkers in Cats with Chronic Kidney Disease

Purpose of Study

Chronic kidney disease (CKD) is one of the most common diseases of aging cats. The gastrointestinal microbiome is an important ecosystem that helps maintain overall health and is disrupted with many diseases including CKD. Understanding more about the disease, including the microbiome, and investigating for potentially new biomarkers is essential in order to identify targeted treatments for this condition.

Eligibility

We are seeking both cats with CKD classified as International Renal Interest Society (IRIS) stages I, II or III as well as older healthy cats for this study.

Inclusion criteria:

- Cats of any age with IRIS stage 1-3 CKD OR healthy cats ≥ 7 years of age
- ≥ 2.5 kg body weight

Exclusion criteria:

- Heart disease requiring medications (asymptomatic heart disease and low-grade murmurs are okay)
- Uncontrolled hyperthyroidism, uncontrolled diabetes mellitus
- Concurrent malignant neoplasia (cancer) or concurrent chronic enteropathy (intestinal disease)
- Current treatment with a corticosteroid

What does participation in this study involve?

This study involves 4 different visits over an approximately 1-year timeframe. No treatments will be given. We ask that food be pulled by 10 PM the night before the appointment (water is okay).

Visit 1 (baseline 1): Blood and urine will be collected for a complete blood count (CBC), chemistry panel, urinalysis (UA), urine protein/creatinine (UPC), thyroid level (T4), symmetric dimethylarginine (SDMA), and samples will be frozen for future analysis. Blood pressure will also be measured, and abdominal radiographs and ultrasound performed.

Visit 2 (baseline 2): This visit will help to determine that your cat's kidney function is stable and will occur 2-4 weeks after visit 1. We ask that you bring in a fresh fecal sample in a Ziplock bag from your cat (collected within 24 hours of this visit and refrigerated). Blood and urine will be collected again for a chemistry panel, UA, UPC, SDMA, and samples frozen for future analysis. Blood pressure will be measured, and a cheek swab will be obtained.

Visit 3 (6-month recheck): We ask that you bring in a fresh fecal sample in a Ziplock bag from your cat (collected within 24 hours of this visit and refrigerated). Blood and urine will be collected again for a CBC, chemistry panel, UA, UPC, T4, SDMA, and samples frozen for future analysis. Blood pressure will be measured, and a cheek swab will be obtained. Abdominal radiographs and ultrasound will also be performed.

Visit 4 (12-month recheck): We ask that you bring in a fresh fecal sample in a Ziplock bag from your cat (collected within 24 hours of this visit and refrigerated). Blood and urine will be collected again for a CBC, chemistry panel, UA, UPC, T4, SDMA, and samples frozen for future analysis. Blood pressure will be measured, and a cheek swab will be obtained. Abdominal radiographs and ultrasound will also be performed.

Client Compensation

This study will cover the cost of all diagnostics listed above in the previous section.

Client Responsibilities

This study requires 4 visits to the KSU VHC over an approximately 1-year timeframe. No food should be given for 10-12 hours prior to the appointment, but water is okay. We also request that a fresh fecal sample be brought to the last 3 visits.

Contact Information

Please contact Kris Richardson, Clinical Trials Coordinator at the Veterinary Health Center, for more information about this study. Phone: (785)-532-3046; email: ClinicalTrials@vet.k-state.edu