



RESEARCH PROGRESS REPORT SUMMARY

Grant 02780: Bladder Carcinogen Exposures in Pet Dogs

Principal Investigator: Lauren Trepanier, DVM, PhD

Research Institution: University of Wisconsin, Madison

Grant Amount: \$149,145

Start Date: 3/1/2020 **End Date:** 2/28/2022

Progress Report: Mid-Year 1

Report Due: 8/31/2020 **Report Received:** 8/20/2020

(The content of this report is not confidential and may be used in communications with your organization.)

Original Project Description:

Bladder cancer is an aggressive cancer that affects ~ 20,000 dogs per year, and often leads to euthanasia. Certain breeds have a higher incidence of bladder cancer but genetic studies even in the highest risk breeds have been inconclusive and still indicate influence from environmental exposures. The investigators propose that specific household environmental chemical exposures contribute to the risk of bladder cancer in dogs. In this study, they will measure urinary concentrations of five different chemicals that are known or suspected to be bladder carcinogens, in dogs with bladder cancer compared to unaffected dogs. The investigators will determine whether the presence of certain chemicals is associated with household exposures, based on owner questionnaires and household proximity to industrial sites. Finally, they will determine whether urinary chemical concentrations are linked to early DNA damage in the urinary cells of healthy dogs that do not have bladder cancer. The overall goal of this study is to provide veterinarians and dog owners with evidence-based bladder cancer prevention strategies.

Publications: None to date

Presentations: None to date

Report to Grant Sponsor from Investigator:

Right after our AKC Canine Health Foundation grant funding started in March, our lab was closed for 3 months due to COVID-19 and is now allowed only 50% staff occupancy. We are optimizing methods to start recruiting patients this fall.