



## RESEARCH PROGRESS REPORT SUMMARY

**Grant 02128-A:** Redefining the Recommendations for Prevention of Infectious Disease at Dog Shows and Other Areas Where Dogs Meet and Compete

**Principal Investigator:** Dr. Jason Stull, VMD, PhD

**Research Institution:** Ohio State University

**Grant Amount:** \$11,942.00

**Start Date:** 7/1/2014

**End Date:** 8/31/2016

**Progress Report:** Final

**Report Due:** 8/31/2016

**Report Received:** 10/13/2016

**Recommended for Approval:** Approved

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*(Content of this report is not confidential. A grant sponsor's CHF Health Liaison may request the confidential scientific report submitted by the investigator by contacting the CHF office. The below Report to Grant Sponsors from Investigator can be used in communications with your club members.)*

### Original Project Description:

The AKC Canine Health Foundation and the Orthopedic Foundation for Animals have a long standing commitment to supporting research that aims to prevent, treat, and cure canine disease. As the sport of dogs increases in popularity, we realized that one major gap in our current body of knowledge is how to reduce the risk of infectious disease spread at the intersection of the dog and the environment. Put another way, now that more and more large groups of dogs congregate at dog shows, agility events, field trials, animal shelters and dog parks, where are the risks and how should we manage them? To that end, Dr. Jason Stull and colleagues at the Ohio State University and Ontario Veterinary College will conduct a retrospective analysis of the veterinary infectious disease literature in order to provide updated recommendations for mitigation of risk of contraction of infectious disease at events where dogs congregate. Lead by Dr. Stull, this influential collaborative group of veterinary epidemiologists, infectious disease experts, immunologists, and internal medicine specialists will evaluate peer reviewed studies defining the incidence, clinical presentations, and outcomes of diseases; mechanism of infection, replication, spread and/or pathogenesis of diseases, computer modeling of disease transmission, characterization of susceptible cohorts for particular pathogens, and emerging concerns for novel pathogens to assess risk and develop management strategies. They will also include major stakeholders within the dog community in the process, guaranteeing that recommendations made at the outcome of this



study will be practical and possible to accomplish in the 'real world'. The end result will be a peer-reviewed publication defining an up-to-date risk assessment and management recommendations, and most importantly, a white paper that can be used by dog owners and organizers of canine events and facilities. Finally, the researchers hope to create an open-access website that will be an interactive, living document, helping all those involved with dogs reduce the risk and spread of infectious disease where dogs meet and compete.

### **Publications:**

Stull JW, Kasten JI, Evason MD, et al. Risk reduction and management strategies to prevent transmission of infectious disease among dogs at dog shows, sporting events, and other canine group settings. *J Am Vet Med Assoc* 2016;249:612-627. Available at: <http://avmajournals.avma.org/doi/abs/10.2460/javma.249.6.612>.

### **Report to Grant Sponsor from Investigator:**

Through the use of focus groups, surveys, and a study panel of experts in canine infectious disease, this work has resulted in the development of key recommendations to prevent and control infectious disease transmission among dogs at group settings (e.g., shows, agility, boarding, dog daycare, dog parks). Recourses were developed to get these recommendations and related tools into the hands of setting participants and organizers/staff. These include:

1. An open-access peer-reviewed journal article written for those in the veterinary field involved in organizing and providing care for dogs involved in canine group settings. The article provides an in-depth discussion of the infectious disease risks, supporting evidence and resulting recommendations developed by the research group.
2. A freely assessable white paper document written for those who have dogs involved in dog group settings, organize an event, or own/work at a group setting. The document provides an overview of the infectious disease risks in dog group settings with practical, specific recommendations for reducing risks. It includes tables of key infectious diseases of concern, checklists for event/facility participants and organizers and vaccine and disinfectant recommendations. Focus group and surveys shaped content to ensure it meets the needs of participants and organizers.
3. Quick reference sheets that discuss a sample of infectious pathogens and general disease concepts geared at the dog owner level were developed. The diseases ringworm, hookworms, Lyme disease and canine distemper virus were chosen to highlight the variability in diseases affecting canine group settings and different prevention methods needed to address disease risks.



4. An on-line infectious diseases Risk Calculator that uses a series of short multiple choice questions to provide immediate feedback to users. Feedback allows users to identify higher risk practices and identify potential solutions for risk reduction. All of the above materials are tied to this calculator with the idea that users become interested in the topic by completing the short calculator and are then motivated to invest the needed time to read the in-depth white paper and/or publication.

5. All of the above developed resources are now housed at a dedicated website: <http://vet.osu.edu/preventive-medicine/vpm-research/disease-prevention-canine-group-settings> (also available using the shortened path: <http://go.osu.edu/IDk9risk>).

### Conclusions and Future Directions

This work resulted in the development of several key resources for identifying and reducing infectious disease risks at canine group settings. In the hands of engaged participants and setting organizers/staff, these resources are likely to reduce infectious disease risks in group settings and their involved dogs. Through this work, however, it is also clear there is a great need for education and training on this topic. Our work suggests higher risk practices are likely to be regularly occurring at canine group settings, including AKC conformation shows. Further, some recommendations are likely to be met with strong resistance (e.g., external requirements), highlighting the need for a culture change to occur among setting participants. As such, on-going education is critical to successful implementation of the developed recommendations. This need was uncovered through the surveys and focus group. Education toward participants in group setting events is needed to assist in instilling the purpose of these recommendations and importance in following them. Education/training is needed for setting organizers and leaders to give them the tools to effectively accomplish fine-tuning, implementing, and enforcing the recommendations identified in this work. Developing such resources at the setting-specific level will be important as settings vary greatly between disease risks and modifiable factors to reduce risks.

The study team strongly recommends additional educational resources are devoted to this topic. Examples of educational projects would include on-line “white board” videos that highlight for event participants the importance of these practices in disease prevention and on-line training modules that walk event organizers through the specifics of key areas and practical approaches (e.g., setting up a show to maximize dog and person flow to reduce disease).