Curriculum Vitae

Kathryn R. Dalton, Ph.D., V.M.D., M.P.H.

Personal Data

Johns Hopkins University

Bloomberg School of Public Health,

Department of Environmental Health & Engineering

615 N. Wolfe Street, Baltimore, Maryland 21205

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Education and Training

Postdoc Current

Johns Hopkins School of Public Health

Ph.D. 2020

Johns Hopkins School of Public Health

Environmental Epidemiology and Exposure Science

Clinical Research Fellow 2017

Johns Hopkins School of Public Health

Environmental Microbiology

M.P.H. 2016

Johns Hopkins School of Public Health

Infectious Disease

V.M.D. 2013

University of Pennsylvania, School of Veterinary Medicine

Veterinary Public Health

B.S. 2008

SUNY Stony Brook University

Biology and Anthropology

Medical or Other Licensure

Licensed veterinarian in Maryland, New Jersey, and Pennsylvania 2013

USDA veterinary accreditation:

Maryland 2015

New Jersey 2013

Veterinary Medical Certification 2013

Professional Experience

Relief Veterinarian 2015-2019

Banfield Pet Hospitals in North Maryland region

Provided veterinary preventative services, and other veterinary clinical duties

Associate Veterinarian 2013-2015

Banfield Pet Hospital, Mount Laurel, New Jersey

Provided veterinary preventative, general medicine, surgical and emergency services in an AAHA-certified three-doctor practice, was primary medical doctor and trained on-boarding doctors.

Professional Activities

Society Membership & Leadership

Infectious Disease Society of America (IDSA) 2018-present

Society for Healthcare Epidemiology in America (SHEA) 2018-present

International Society for Environmental Epidemiology (ISEE) 2017-present

Humane Society Veterinary Medical Association 2015-present

American Veterinary Medical Association (AVMA) 2009-present

Maryland Veterinary Medical Association (MVMA) 2015-2019

American Public Health Association (APHA) 2015-2017

Consortium Activities

Mid-Atlantic Vector-borne Disease Inter-Agency Workgroup 2015-present

CDC / Maryland Department of Health Lyme Corp Outreach Group 2015-2017

Editorial Activities

Peer-review Activities

Reviewed for the following journals:

American Journal of Infection Control

Environmental International

Zoonoses and Public Health

Honors & Awards

IDweek2018 Kass Award 2018

IDweek2018 Oral Abstract Media Release and Press Conference Recognition 2018

Delta Omega Honors Society Poster Competition Runner Up Laboratory Science 2017

Department of Environmental Health Research Retreat Poster Award Runner Up 2017

Department of Environmental Health Sciences MPH Capstone Award 2016

FDA Center for Excellence in Regulatory Science and Innovation (CERSI) Award 2015

University of Pennsylvania School of Vet Medicine, Student Inspiration Award 2012

Publications

The following link provides access to all published work:

All works:

<https://scholar.google.com/citations?user=UshXcZUAAAAJ&hl=en>

Currently indexed by PubMed:

<https://www-ncbi-nlm-nih-gov.proxy1.library.jhu.edu/myncbi/kathryn.dalton.1/bibliography/public/>

Journal Articles (Peer-Reviewed)

**Dalton KR**, Waite K, Ruble K, Carroll KC, DeLone A, Frankenfield P, Serpell J, Thorpe R, Morris DO, Agnew J, Rubenstein R, and Davis MF. Risks Associated with Animal-Assisted Intervention Programs: A Literature Review. Complementary Therapies in Clinical Practice 2020, May;39:101145. DOI: [10.1016/j.ctcp.2020.101145](https://doi.org/10.1016/j.ctcp.2020.101145).

PrePrint version: medRxiv 2020.02.19.20025130.

DOI: [10.1101/2020.02.19.20025130](https://doi.org/10.1101/2020.02.19.20025130).

**Dalton KR**, Rock C, Carroll KC, and Davis MF. One Health in Hospitals: How understanding the dynamics of people, animals, and the hospital built environment can be used to better inform interventions for antimicrobial-resistant Gram-positive infections. Antimicrobial Resistance & Infection Control 2020, June;9(78). DOI: [10.1186/s13756-020-00737-2](https://doi.org/10.1186/s13756-020-00737-2). PMID: 32487220.

Davis, M.F., Ludwig, S., Josephs-Spaulding, J., **Dalton, K**., Newman, M., Balcer-Whaley, S.L., Peng, R., Keet, C., McCormack, M.C. and Matsui, E.C., 2018. Environmental exposure to Staphylococcus aureus and SEB are associated with asthma symptoms and worse lung function among low-income, urban children with asthma. Journal of Allergy and Clinical Immunology, 141(2), p.AB193. DOI:10.1016/j.jaci.2017.12.612

Leibler, J.H., **Dalton, K.,** Pekosz, A., Gray, G.C. and Silbergeld, E.K., 2017. Epizootics in industrial livestock production: preventable gaps in biosecurity and biocontainment. Zoonoses and public health, 64(2), pp.137-145. DOI: 10.1111/zph.12292

Preprint Publications

**K.R. Dalton**; Spicer, K.; Ludwig, S; Clemons-Erby, D.; Green, T.; Rule, A.M.; Koehler, K.; McCormack, M.C.; Davis, M.F.; Evaluation of Field Sampling Techniques for Environmental Microbial Exposure: Assessing Efficacy and Feasibility. bioRxiv 2020.06.14.150722; DOI: 10.1101/2020.06.14.150722

Baron PA, Love DC, Ludwig S, **Dalton K**, Larsen J, Innes GK, and Heaney CD, Davis MF. Microbial food safety in the Maryland direct-to-consumer poultry supply chain. bioRxiv 643106. doi: <https://doi.org/10.1101/643106>.

Part II

Teaching

Capstone/Master’s Thesis Advisees

Kimberley Guyer, D.V.M., current iM.P.H. student 2020-present

Julianna Nechin, current Sc.M. student (MMI) 2019-present

Summer Student Advisees

Sabrina Waugh (CO State SVM), veterinary student 2019

Zoë Johnson (MI State SVM), current M.H.S. student 2017

Research Assistants

Peter Campbell (current medical student at UMBC) 2020-present

William Altekruse (current social work graduate student UMBC) 2020-present

Teaching Assistantship

One Health Tools 2018-present

to Promote & Evaluate Healthy and Sustainable Communities

Johns Hopkins Bloomberg School of Public Health

Course Faculty Instructor: Meghan F. Davis

3.0 credits, Fourth Term

Enrollment: 2020 — 18; 2019 – 25; 2018 – 21

2018, 2019 & 2020 Excellence in Teaching, based on student course evaluation feedback

\*Helped to design this course, gave two lectures, and directed interactive group sessions

Essentials of One Health 2019-present

Johns Hopkins Bloomberg School of Public Health

Course Faculty Instructor: Meghan F. Davis

0.5 credits, First, Third & Fourth Terms

Part of the “Cells to Society” public health curriculum

Enrollment 2019-20: First term – 150; Third term – 80; Fourth term – TBD

Foundations of Occupational Health 2018

Johns Hopkins Bloomberg School of Public Health

Course Faculty Instructor: Maureen Cadorette

3 credits, First Term

Case Studies in Food Animal Production and Public Health 2017

Johns Hopkins Bloomberg School of Public Health

Course Faculty Instructor: Keeve Nachmann

3 credits, FourthTerm

Research Grant Participation

Current Grants

No number (Dalton) 2019-present

Johns Hopkins ERC

Identifying Occupational Health Benefits and Concerns of Key Stakeholders Regarding Hospital-Based Animal-Assisted Intervention Programs: A Pilot Study to Inform Program Implementation.

$10,000

Role: Principal Investigator (no effort covered)

Main Grant Objective: Conduct qualitative interviews on key stakeholders in hospital animal-assisted intervention programs in order to understand barriers and facilitators to program implementation as a stress-reduction mechanism in healthcare workers. Principal Responsibilities: As student PI, I designed the project, wrote for initial funding, submitted for IRB approval, hired and trained research assistants, conducted or supervised interviews, preformed or supervised coded qualitative data analysis, and transcript finding into a manuscript for publication.

No number 2018-present

NIOSH Johns Hopkins Education and Research Center Training Award (T42)

RHD097692A (Davis) 2018-2022

R01, Eunice Kennedy Shriver National Institute of Child Health & Development

Clinical trial of a disinfectant intervention in therapy dogs to combat hospital-associated pathogens and promote sustainability of Animal-Assisted visitation programs

$1,857,348

Role: Postdoctoral Fellow Co-Investigator

Main Grant Objective: Leadership of one independent aim, to assess holistic microbial community alterations during a hospital animal-assisted intervention program, and the effect of a chlorhexidine-based intervention on acquisition of hospital-associated pathogens and microbial communities by patients during AAI sessions via a multicenter randomized controlled trial

Principal Responsibilities: Assist with overall study management for multicenter clinical trial, aid in study design, supervise and train sample collection and laboratory assessment, supervise or perform data management and data analysis on microbial community analysis, give presentations, prepare manuscripts.

Previous Grants

No number

American Kennel Club Canine Health Foundation 2018 - 2019

Clinician-Scientist Fellowship

$12,000

No number (Davis/Fanzo) 2017-2018

Johns Hopkins Practical Ethics Award

The law of unintended consequences: Will the implementation of California SB27 impact animal health and well-being?

$67,500

Role: Student Investigator (no effort)

Main Grant Objective: To characterize the immediate impact of SB27 on animal health and welfare and examine ethical trade-offs associated with the California law.

Principal Responsibilities: conducted farmer interviews, assist with preparation of manuscripts.

D15CA-802 (Chen) 2014-2015

Morris Animal Foundation (extramural)

Animal Assistance Therapy: Ensuring animal health and program sustainability in the context of hospital-associated infections

$10,000

Role: Study Coordinator (no effort)

Main Grant Objective: To demonstrate whether a dog intervention to decontaminate fur during AAT visits can reduce transmission of HAIs between patients and animals.

Principal Responsibilities: Study design, sample collection, laboratory and data analysis, manuscripts.

Academic Service

University (Johns Hopkins)

One Health Student Group

Co-Founder 2015 President 2015-2018

Senior Advisor 2018-present

Department (Environmental Health and Engineering)

Environmental Health and Engineering Practice committee

Student Representative 2018-present

Environmental Health and Engineering Student Group

Treasurer 2017-2020

Scientific Meetings: Presenting Author, Oral Sessions

**Dalton KR**, Waite KB, Agnew JA, Barnett DJ, David MF. The COVET Study: Preliminary Findings from the Ongoing Veterinary and Animal Care Workers’ Perceived Risk and Willingness to Respond to the COVID-19 Pandemic. World One Health Congress. Oct 30 – Nov 3, 2020. (Presenting author, Oral presentation).

**Dalton KR**, Carroll KC, Grice EA, Davis MF. **Exploring Microbial Community Alterations during Hospital Animal-Assisted Intervention Programs. ID Week. Oct 21-25, 2020. (Presenting author, Poster presentation).**

**Dalton K**, Ruble K, Carroll K, Grice E, and Davis MF. Emerging exposures and health effects in the hospital environment. International Society of Environmental Epidemiology (On Places II, S03), August 25-28, 2019, abstract published in Environmental Epidemiology (Presenting author, Oral presentation).

**Dalton K**, Ruble K, Delone L, Frankenfield P, Walker D, Ludwig S†, Ross TL, Jaskulski J, Carroll KC, Rankin S, Morris DO, Chen A, and Davis MF. Reduction in the spread of hospital-associated infections among pediatric oncology patients in a group animal-assisted visitation program from a canine intervention. ID Week (Abstract #72940). October 4, 2018, abstract published in Open Forum Infectious Diseases. (Presenting author, Oral presentation and press conference)

Davis MF, **Dalton K**, Johnson Z, Ludwig S, Sabella K, Newman M, Balcer-Whaley S, Keet C, McCormack MC, Carroll KC, and Matsui EC. Household pets and recovery of Moraxella catarrhalis and other respiratory pathogens from children with asthma. ID Week (Abstract #71914). October 6, 2018, abstract published in Open Forum Infectious Diseases. (Poster session)

Innes G, **Dalton K**, Gould CA, Markos A, Nachman K, Frattaroli S, Fanzo J, Barnhill A, and Davis MF. Antibiotic resistance and societal consequences: perspectives from animal agriculture producers and other stakeholders. 8th Symposium on Antimicrobial Resistance in Animals and the Environment. July 1-3, 2019 (Poster presentation)

Davis MF, Ludwig S, **Dalton K**, Exum N, Schwab K, Kosek M, Koehler K, Rule A, Lautenbach E, McCormack M, and Matsui E. Assessment of indoor microbial exposures. International Society of Exposure Science & International Society for Environmental Epidemiology joint conference (Abstract#300180). August 28, 2018. (Poster session)

Davis MF, LudwigS, Josephs-SpauldingJ, **DaltonK,** NewmanM, Balcer-WhaleyS, PengR, KeetC, McCormackMC, Matsui EC. Environmental exposure to Staphylococcus aureus and SEB are associated with asthma symptoms and worse lung function among low-income, urban children with asthma. The American Academy of Allergy, Asthma, and Immunology Annual Meeting, (Abstract# 33436). March 4, 2018, abstract published in the Journal of Allergy and Clinical Immunology.