

CASSIDY LYNN RIEKOFSKI

Hanover, NH 03755

cassidy.l.riekofski@dartmouth.edu

EDUCATION

Cummings School of Veterinary Medicine at Tufts University, North Grafton, MA

Master of Science in Infectious Disease and Global Health

July 2016

Clarkson University, Potsdam, NY

Bachelor of Science in Biology

December 2014

SKILLS

Professional laboratory skills:

- Luminex Platform
- Meso Scale Discovery (MSD)
- ELISA
- Flow cytometry and FACS (BD FACSDiva™ Software)
- Western blot
- Mammalian cell culture (HeLa, hybridoma)
- PCR (including qRT-PCR)
- Cloning and transformation
- RNA isolation and cDNA synthesis
- Murine *in vivo* work (infection, monitoring, euthanasia, and tissue harvest)
- Immunofluorescent microscopy
- Microbiology Isolation Culturing (*Salmonella*)
- Urinalysis (spectrometer, pH strips, microcopy analysis)
- Familiarity with GCLP, GLP, GMP, QC, QA, biosafety, OSHA

Proficient with R Machine Learning, GraphPad Prism, Microsoft Office, SPSS, and Avimark.

EXPERIENCE

Research Assistant II, Thayer School of Engineering at Dartmouth College, *June 2017-Present*

- Work in a collaborative group under Good Clinic Laboratory Practices (GCLP) standards to study immune responses, primarily but not limited to potential HIV therapeutics. Other research interests include polio and influenza.
- Primary platforms are Fc Array and Anti-Drug Antibody (ADA) assays performed on the Luminex and MSD platforms, respectively.
- Using these established assays, data is collected, analyzed, interpreted, and presented in presentations and reports to collaborators.
- Primary responsibilities include an active role in experimental design, qualifying and testing new reagents, equipment maintenance, laboratory quality control, and laboratory inventory.
- Humoral responses to polio vaccination: Perform assays on the Luminex platform to enable the measurement of mucosal immune responses to polio virus in stool samples. Luminex data is analyzed to provide a PV specific IgA response as well as quantifying the total (non-PV specific) amount of IgA present. The goal of this assay is to provide a useful exploratory test in hopes to aid in polio research to work further toward the Global Polio Eradication Initiative (GPEI).

Master of Science in Infectious Disease and Global Health, Cummings School of Veterinary Medicine at Tufts University, *August 2015-July 2016*

- Concentrated on the evolution and immunology of infectious disease and the emerging threat it poses on animal, human, and environmental health with an emphasis on antimicrobial resistance, global health, & combatting those threats

- Comprehensive courses with a primary focus on lab techniques including chromatography, SDS-PAGE, ELISA, cell culture, cell cytotoxicity, PCR cloning & transformation, flow cytometry, RNA isolation, cDNA synthesis, and qRT-PCR with proper sterile technique.
- Animal model course studied four disease models where I was responsible for inoculating, monitoring, cage upkeep, and euthanasia for mice. Blood collections via retro-orbital, lateral tail veins, intracardiac puncture were utilized and necropsies were performed for tissue harvesting.
- Assisted in urban chicken study of Greater Boston area. *Salmonella* and lead levels were analyzed bases on soil, cloaca, egg, fecal, and dust samples. Prepared media protocols, supply lists, organize databases and coding from the surveys as well as researched current literature on backyard chicken flocks and *salmonella*. Samples were cultured using the isolation technique and suspicious samples were finalized for PCR analysis. Soil samples were collected to detect lead levels at Boston University Medical Campus. Coauthor of manuscript titled, “Salmonella shedding, antimicrobial resistance, and chicken-household member interactions among backyard chicken flocks in Massachusetts” under consideration in the *Zoonoses and Public Health Journal*.
- Research proposal encompassed summary, literature review, and experimental design on “Does Exposure to Air Pollution Modify the Innate Immune Response to Respiratory Syncytial Virus?”. A poster presentation with faculty, staff, peers, and the public finalized the graduate program.

Veterinary Assistant, Springfield Animal Hospital, *October 2016-June 2017*

Provide care for pets in appointments and in animal hospital setting including IV catheter placement, subcutaneous and IV fluid therapy, urinalysis, bacterial culture, digital radiography, cytology, blood work using HESKA machines, phlebotomy, anesthesia monitoring, surgical preparation and recovery, pharmacy, and administer vaccines. Responsible for OSHA procedures.

Veterinary Assistant, Millstone Veterinary Clinic, *May 2012-August 2016*

Worked alongside three veterinarians during school breaks while attending college to create a welcoming environment for incoming patients and clients. Duties included appointment scheduling, reception, patient intake, maintain inventory, animal restraint, patient hospital care, assist with appointments and hospital treatments, maintain a clean environment, and sterilization of surgery instruments. Gained communication skills and became familiar with veterinary medicine protocols.

Research Assistant, Clarkson University, *August 2014-December 2014*

- Worked with evolution biologist to compare the morphologic relationship of the Sphinx moth to the phylogeny tree
- Weighed, pinned, labeled, and photographed moths collected in North Country area
- Performed DNA extraction using a piece of moth leg & identified species using BLAST
- Morphology statistically analyzed using moth wing area with PAST programming
- Gathered sources and compiled data to compose manuscript

PROFESSIONAL DEVELOPMENT

- Luminex xMAP Connect 2018 Conference in Boston, MA, *September 2018*
 - Received travel grant and received best poster award
- Life Sciences Conference on Biotechnology, Infectious Disease, & the Microbiome, *April 2016*
- Zoobiquity Conference in Philadelphia, PA, *April 2016*
- Journal Club Series hosted by Cummings School of Veterinary Medicine, *August 2015-June 2016*