

## Matthew D. Moore, Ph.D.

Assistant Professor  
Department of Food Science  
University of Massachusetts, Amherst  
mdmoore@umass.edu

Work: 413-545-1019; Cell: 215-407-5206

<https://scholar.google.com/citations?user=ia0YhzAAAAAJ&hl=en>

---

### Education:

- 2016 *Doctor of Philosophy in Food Science, minors in Biotechnology and Food Safety, summa cum laude*, North Carolina State University.
- 2010 *Bachelor of Science in Food Science, summa cum laude with distinction in research*, Cornell University.

### Current Position:

Assistant Professor, Department of Food Science, University of Massachusetts Amherst.  
January 2018 (Amherst, MA)

### Previous Experience:

- ORISE Postdoctoral Fellow National Antimicrobial Resistance Monitoring System, Centers for Disease Control and Prevention, January 2017-Present (Atlanta, GA)
- Postdoctoral Research Scholar, Department of Food, Bioprocessing, and Nutrition Sciences, North Carolina State University, March 2016-January 2017 (Raleigh, NC)
- Graduate Research Assistant, Department of Food, Bioprocessing, and Nutrition Sciences, North Carolina State University, July 2010-March 2016 (Raleigh, NC)
- Research Intern, Microbiology Research and Development Group, bioMerieux, May 2012-July 2012 (Hazelwood, MO)
- Undergraduate Researcher, Department of Food Science, Cornell University, February 2009-May 2010 (Ithaca, NY)
- Summer Research Scholar, Department of Food Science, Cornell University, May 2009-August 2009 (Ithaca, NY)
- Undergraduate Researcher, Division of Nutritional Sciences, Cornell University, February 2007-December 2009 (Ithaca, NY)
- Research Intern, Food Safety Intervention Technologies Unit, United States Department of Agriculture Eastern Regional Research Center, May 2008-August 2008

### Publications in Scientific Journals (\*Listed as Corresponding or Co-Corresponding Author; #UMass Affiliation Listed):

1. Escudero-Abarca BI, Suh SH, **Moore MD**, Dwivedi HP, Jaykus L-A. 2014. Selection, Characterization and Application of Nucleic Acid Aptamers for the Capture and Detection of Human Norovirus. *PLoS One* 9(9):e106805.
2. **Moore MD**, Goulter RM, Jaykus L-A. 2015. Human Norovirus as a Foodborne Pathogen: Challenges and Developments. *Annual Reviews in Food Science and Technology* 6(1): 411-413.

3. **Moore MD\***, Escudero-Abarca BI, Suh S, Jaykus L-A. 2015. Generation and Characterization of Nucleic Acid Aptamers Targeting the Capsid P Domain of a Human Norovirus GI.4 Strain. *Journal of Biotechnology* 209:41-49.
4. Manuel C, **Moore MD**, Jaykus L-A. 2015. Rapid Destruction of Human Norovirus Capsid and Genome Occurs during Exposure to Copper-containing Surfaces. *Applied and Environmental Microbiology* 81(15): 4940-4946.
5. **Moore MD\***, Bobay BG, Mertens B, Jaykus L-A. 2016. Human Norovirus Aptamer Exhibits High Degree of Target Conformation-Dependent Binding Similar to that of Receptors and Discriminates Particle Functionality. *mSphere* 1(6): e00289-16.
6. Manuel C, **Moore MD**, Jaykus L-A. 2017. Inactivation of GI.6 and GI.4 Human Norovirus by Silver Dihydrogen Citrate. *Journal of Applied Microbiology* 122(1):78-86.
7. **Moore MD\***, Jaykus L-A. 2017. Development of a Recombinase Polymerase Amplification Assay for Detection of Epidemic Human Noroviruses. *Scientific Reports* 7:40244.
8. Almand EA, **Moore MD\***, Outlaw J, Jaykus L-A. 2017. Human Norovirus Binding to Select Bacteria Representative of the Human Gut Microbiota. *PLoS One*. 12(3): e01724.
9. Almand EA, **Moore MD\***, Jaykus L-A. 2017. Virus-Bacteria Interactions: An Emerging Topic in Human Infection. *Viruses* 9(3): 58-68.
10. **Moore MD\***, Jaykus L-A. 2017. A Plate-Based Histo-Blood Group Antigen Binding Assay for Evaluation of Human Norovirus Receptor Binding Affinity. *Analytical Biochemistry* 533: 56-59.
11. **Moore MD\***, Jaykus L-A. 2017. Recombinase Polymerase Amplification: A Promising Point-of-Care Detection Method for Enteric Viruses. *Future Virology* 12(8): 421-429.
12. **Moore MD\***, Mertens BS, Jaykus L-A. 2017. Alternative *In Vitro* Methods for the Determination of Viral Capsid Structural Integrity. *Journal of Visual Experimentation* e56444.
13. Almand E, **Moore MD#\***, Jaykus L-A. 2017. Norovirus Binding to Ligands Beyond Histo-Blood Group Antigen Ligands. *Frontiers in Microbiology* 8: 2549.
14. **Moore MD#\***, Jaykus L-A. 2018. Virus-Bacteria Interactions: Implications and Potential for the Applied and Agricultural Sciences. *Viruses, Special Issue, "Virus-Bacteria Interactions in the Gut,"* 10(2): 61.
15. Abdel-Moneim A, Varma A, Pujol F, Lewis G, Paweska J, Romalde J, **Moore MD#**, Söderlund-Venermo M, Nevels M, Vakharia V, Joshi V, Malik Y, Shi Z-L, Memish Z. 2018. Launching a Global Network of Virologists: The World Society for Virology (WSV). *Intervirology* 62511:1-2.
16. Suh SH, Choi SJ, Dwivedi HP, **Moore MD**, Escudero-Abarca BI, Jaykus L-A. 2018. Use of a DNA Aptamer for Sandwich Type Detection of *Listeria monocytogenes*. *Analytical Biochemistry* 557:27-33.
17. Manuel C, **Moore MD#\***, Jaykus L-A. 2018. Predicting Human Norovirus Infectivity: Recent Advances and Continued Challenges. *Food Microbiology* 76:337-345.
18. Tagg KA, Watkins LF, **Moore MD**, Bennett C, Chen JC, Folster JP. 2018. Novel Trimethoprim Resistance Gene *dfrA34* identified in *Salmonella* Heidelberg in the USA. *Journal of Antimicrobial Chemotherapy*, dky373.
19. Kamarasu P, Hsu H, **Moore MD#\***. 2018. Research Progress in Viral Inactivation Utilizing Human Norovirus Surrogates. *Frontiers in Sustainable Food Systems* 2:89.
20. Brown P, **RELISH Consortium#**, Zhou Y. 2019. Large expert-curated database for benchmarking document similarity detection in biomedical literature search. *Database* 2019:baz085.

21. Suther C, **Moore MD#\***. 2019. Quantification and discovery of PCR inhibitors found in food matrices commonly associated with foodborne viruses. *Food Science and Human Wellness* 8(4):351-355.
22. Almand E, **Moore MD#**, Jaykus L-A. 2019. Determination and characterization of human norovirus binding to gut-associated bacteria and identification of candidate ligands involved. *BMC Research Notes* 12:607.
23. Huang R, Vaze N, Soorneedi A, **Moore MD#**, Xue Y, Bello D, Demokritou P. 2019. Inactivation of hand hygiene related pathogens using engineered water nanostructures. *American Chemical Society Sustainable Chemistry and Engineering* 7(24):19761-19769.
24. Abdel-Moneim A, **Moore MD#**, Naguib M, Romalde JL, Soderlund-Venermo M. 2020. WSV 2019: The 1<sup>st</sup> Committee Meeting of the World Society for Virology. *Virologica Sinica* 35: 248–252.
25. Liu L, **Moore MD#\***. 2020. A survey of analytical techniques for noroviruses. *Foods* 9(3):E318.
26. Hosein HI, **Moore MD#**, Abdel-Moneim AS. 2020. Known SARS-CoV-2 infections: The tip of an important iceberg. *International Journal of Health Planning and Management* 35(5):1270-1273.
27. Aasi A, Aghaei SM, **Moore MD#**, Panchapakesan B. 2020. Pt-, Rh-, Ru-, and Cu-single-wall carbon nanotubes are exceptional candidates for design of anti-viral surfaces: A theoretical study. *International Journal of Molecular Sciences* 21(15):5211-5233.
28. Suther C, **Moore MD#**, Beigelman A, Zhou Y. 2020. The gut microbiome and the big eight. *Nutrients* 12(12):3728.
29. **Moore MD#\***, Suther C, Zhou Y. 2021. Microbiota, viral infection, and the relationship to human diseases and treatment. *Infectious Microbes & Diseases* 3(1):1-3.
30. Safavizadeh V, Moggadam MRA, Farajzadeh MA, Mojkar M, **Moore MD#**, Nokhodchi A, Naebi M, Nemati M. 2021. Descriptions in toxicology, interactions, extraction, and analytical methods of Aflatoxins; a 10-year study performed in Iranian foodstuffs. *International Journal of Environmental Analytical Chemistry*. (In Press).
31. Huang R, Vaze N, Soorneedi A, **Moore MD#**, Luo Y, Poverenov E, Rodov V, Demokritou P. 2021. A Novel Antimicrobial Technology to Enhance Food Safety and Quality of Leafy Vegetables using Engineered Water Nanostructures. *Environmental Science: Nano* 8:514-526.
32. Delshadi R, Bahrami A, McClements DJ, **Moore MD#\***, Williams L. 2021. Development of nanoparticle-delivery systems for antiviral agents: A review. *Journal of Controlled Release* 331:30-44.
33. Manuel C, Suther C, **Moore MD#\***, Jaykus L-A. 2021. Comparison of a one-step real-time RT-PCR and a nested real-time RT-PCR for a genogroup II norovirus reveals differences in sensitivity depending upon assay design and visualization. *PLoS One* 16(4): e0248581.
34. **Moore MD#\***, Faircloth J, Stoufer S, Kim M, Jaykus L-A. 2021. Generation of ssDNA aptamer candidates against a novel calicivirus protein target. *Viruses* 13: 1716.
35. Shi L, Xia H, **Moore MD#**, Deng C, Li N, Ren H, Chen Y, Liu J, Du F, Zheng G, Li J, Liu H, Wang Y, Yang J, Liu Q, Zhao Y, Chen T. 2021. Multiple-Site Reactivation of Human Alphaherpes Virus 1 (HHV-1) in a Critically Ill COVID-19 patient on prolonged ECMO support. *Frontiers in Medicine* 8:715519.
36. Martinez-Ramos P, Goulette T, Stoufer S, **Moore MD#**, Corradini M, Autio W, Kinchla A. 2022. Preparation methods to produce a postharvest wash water model; Assessment and validation for use in food safety studies. *ACS Food Science and Technology* 2(1):57-65.

37. Safavizadeh V, Fernandes de Oliveira CA, Nekoukar Z, Mohammadi MA, Tognon G, **Moore MD#\***. 2022. Occurrence of aflatoxin B1 in imported cinnamon consumed in the Yazd province of Iran. *Food Additives and Contaminants – Part B*. 15(1):52-55.
38. Söderlund-Venermo M; Varma A; Guo D; Gladue DP; Poole E; Pujol FH; Pappu H; Romalde J; Kramer L; Baz M; Venter V; **Moore MD#**; Nevels MM; Ezzikouri S; Vakharia VN; Wilson WC; Malik Y; Shi Z; Abdel-Moneim A. 2022. World Society for Virology First International Conference: Tackling Global Virus Epidemics. *Virology*. 566:114-121.
39. Suther C, Stoufer S, Zhou Y, **Moore MD#\***. 2022. Recent Developments in Isothermal Amplification Methods for the Detection of Foodborne Viruses. "Rising Stars in Virology: 2022" Special Issue, *Frontiers in Microbiology* 13:841875.
40. Suther C, Daddi L, Bokoliya S, Panier H, Liu Z, Qingqi L, Han Y, Chen K, **Moore MD#\***, Zhou Y. 2022. Dietary *Boswellia serrata* acid alters gut microbiome and blood metabolites. *Nutrients* 14(4):814.
41. Mertens BS, **Moore MD#\***, Jaykus L-A, Velez OD. 2022. Efficacy and mechanisms of copper ion-catalyzed inactivation of human norovirus. *American Chemical Society Infectious Diseases* 8(4):855-864.
42. Schoen C, Morgan E, Muilenberg M, Rogers C, Soorneedi A, Suther C, Leftwich H, **Moore MD#\***. 2022. Failure to detect SARS-CoV-2 RNA in the air during active labor after recent COVID-19 infection. *Frontiers in Public Health* 10: 881613.
43. Vaze N', Soorneedi A', **Moore MD#**, Demokritou P. 2022. Inactivating SARS-CoV-2 surrogates on surfaces using Engineered Water Nanostructures incorporated with nature derived antimicrobials. *Nanomaterials* 12(10):1735. 'Equal Contribution.

#### Other Publications and Patents:

1. **Moore MD\***, Jaykus L-A. 2017. Use of an Enzyme-Linked Aptamer Sorbent Assay to Evaluate Aptamer Binding. Chapter. *Synthetic Antibodies (Methods in Molecular Biology Series)*, Ed. Thomas Tiller, Vol. 1575: 291-302.
2. Jaykus L-A, Rawsthorne H, Escudero-Abarca BI, **Moore MD**. Aptamers with Binding Affinity to Norovirus. Patent. Patent application number 62/011,880. (Application Under Review).
3. **Moore MD\*#**. 2019. Human noroviruses and gut bacteria: Friends, frenemies, or both? *Microbiology Today*, May 2019.
4. Jones MK, Almand EA, Soorneedi A, **Moore MD\*#**. 2022. Chapter 10: Eukaryotic virus interactions with bacteria: Implications for pathogenesis and control. *The Biological Role of a Virus*. Advances in Environmental Microbiology Series, Vol. 9. Springer. Textbook, Ed. C. Hurst; 343-367.
5. **Moore MD\*#**, Stoufer S, Soorneedi A. Dangerous Needles in Tasty Haystacks: The Importance of Sample Concentration Prior to Rapid Detection. *Global Food Safety Resource*. Published Online, January 2022.
6. Chen M, Foster J, Kim M, Pham B, **Moore MD#**. Nanopore biosensors and uses thereof. US Provisional Patent Application. (In Preparation).
7. **Moore MD#**, Jaykus L-A. Editor. *Foodborne Viruses: Properties, Detection, and Control*. Textbook, Royal Society of Chemistry. (In Preparation).

#### Publications Undergoing Peer Review Or In Preparation for Submission (estimated month of submission provided):

1. Alavia M\*, Kamarasu P, McClements DJ, **Moore MD\*\***. Metal-based antiviral nanoparticles: Properties, mechanisms of action, and applications. *Advances in Colloid and Interface Science*. (In Revision).
2. Sharma A, Venkatesh U, **Moore MD#**, et al. Preliminary guidelines for improving public preparedness and response to an infectious disease epidemic or pandemic. *Health Promotion International*. (Under Review).
3. Soorneedi A, **Moore MD\*\***. Recent developments in noroviruses interaction with bacteria. *Current Opinion in Food Science* (Under Review).
4. Rafieepoor M, Mohebbi SR, Hosseini SM, Tanhaei M, Niasar MS, Kazemian SK, Aghdaei HA, **Moore MD#**, Zali MR. Detection of SARS-CoV-2 RNA in farms, markets, and fresh leafy green vegetables from Tehran, Iran. *Frontiers in Public Health*. (In Revision).
5. Kim M, Pham B, Chen M, **Moore MD\*\***. Biological nanopore technology: Developments and implications for the agricultural sciences. *Biotechnology Advances* (In Preparation).
6. Kim M, Foster J, **Moore MD#**, Chen M. Location analysis of FLAG antibody binding sites for OmpG nanopore sensing. *ACS Nano*. (In Preparation).
7. Guan, B, Wormald C, Soorneedi A, Lu J, **Moore MD\*\***. Application of a novel nanobubble technology for inactivation of enveloped and nonenveloped viruses. *Applied and Environmental Microbiology*. (In Preparation).
8. **Moore MD\*\***, Bobay BG, Mertens B, Suh S, Jaykus L-A. Differences in Heat Susceptibility of Human Norovirus Strains is Predicted by Docking and Molecular Dynamics Simulations. *PLoS Pathogens* (In Preparation).
9. Stoufer S, Suther C, **Moore MD\*\***. Inhibition of molecular detection by molecules in foods: a review. *Analyst*. (In Preparation).
10. Stoufer S, Demokritou M, **Moore MD\*\***. Evaluation of different commercially relevant disinfectants for destroying free nucleic acids. *Journal of Hospital Infection* (In Preparation).
11. Stoufer S, Varona Ortiz O, Anderson J, Brehm-Stecher B, **Moore MD\*\***. Use of magnetic ionic liquids for capture and concentration of a foodborne virus surrogate. *Journal of Food Protection*. (In Preparation).
12. Stoufer S, **Moore MD\*\***. Evaluation of silica-based quaternary ammonium disinfectants against enveloped and nonenveloped viruses. *Journal of Food Protection*. (In Preparation).
13. Suh SH, Escudero-Abarca BI, **Moore MD#**, Choi SJ, Jaykus L-A. Capture and Detection of a Representative Human Norovirus Strain using Target-Specific Nucleic Acid Aptamers: Proof of Concept. *Analytical Biochemistry* (In Preparation).
14. Escudero-Abarca B, Outlaw J, **Moore MD**, Jaykus L-A. Identification of ssDNA aptamers with binding affinity to human norovirus using a novel selection process. *Applied and Environmental Microbiology*. (In Preparation).
15. Tanaguchi M, **Moore MD\*\***. The use of simulated organic loads on inactivation of viruses: a review. *Journal of Food Protection* (In Preparation).
16. Kamarasu P, Hsu H, **Moore MD\*\***. Essential oil nanoemulsion-based viral inactivation requires a lipid membrane. *American Chemical Society Infectious Diseases*. (In Preparation).
17. Guan B, Wormald C, **Moore MD\*\***. The antiviral efficacy of micro- and nanobubble based technologies for inactivation of viruses. *Frontiers in Microbiology* (In Preparation).
18. Stoufer S, Demokritou M, **Moore MD\*\***. Effectiveness of disinfectants on free nucleic acids: A review. *Pathogens* (In Preparation).

19. Hsu H, Li R, Kamarasu P, Li R, **Moore MD\*#**. Developments in Inactivation of Infectious Human Noroviruses. *Frontiers in Sustainable Food Systems*. (In Preparation).
20. Gensler C, Harper K, Stoufer S, **Moore MD#**, Kinchla A, McLandsborough L. Exploring washing procedures for produce brush washers. *Food Protection Trends*. (In Preparation).

## Research Support

*22 Awarded Grants for Research, Teaching, Equipment, and Extension = over \$4,612,316.00*  
*9 Lead PI/Supervisor for Research = over \$1,703,424.00*

### Active Grants

1. USDA NIFA AFRI Foundational Food Safety Program 5/15/2019-5/14/2022 \$249,987.00  
 Role: PI co-PIs: Melissa Jones (University of Florida)  
 Title: **Utilization and evaluation of bacteria for human norovirus concentration prior to detection**
2. USDA NIFA AFRI Foundational Nanotechnology Program 5/15/2019-5/15/2022 \$489,830.00  
 Role: PI co-PIs: Min Chen (UMass Department of Chemistry)  
 Title: **Development and evaluation of a portable nanopore-based sensing device for rapid detection and subtyping of microbial foodborne pathogens**
3. MA Dept. of Agricultural Resources (MDAR) 10/1/2019-9/30/2022 \$71,294.28  
 Role: co-PI co-PIs: Amanda Kinchla (Lead PI, UMass Food Science; Lynne McLandsborough, UMass Food Science)  
 Title: **Risky Business? Conducting a risk assessment of postharvest operations using washing machines for leafy greens**
4. NSF 18-513 Major Research Instrumentation 8/1/2019-7/31/2022 \$415,000.00  
 Role: co-PI co-PIs: Jianhan Chen (Lead PI, UMass Chemistry; Peng Bai (co-PI, UMass Chemical Engineering); Chungwen Liang (co-PI, UMass IALS); Erin Conlon (co-PI, UMass Mathematics)  
 Title: **Acquisition of a GPU computing cluster for UMass Institute of Applied Life Sciences**
5. USDA Research & Extension Experiences for Undergraduates 9/1/2020-8/31/2025 \$82,601.00  
 Role: co-PI co-PIs: Lynne McLandsborough (Lead PI, UMass Food Science); Eric Decker (co-PI, UMass Food Science)  
 Title: **Food Science Undergraduate Experiential Learning (FUEL) Scholars Program: a Yearlong REEU to Propel Students into a Career in Food Science**
6. USDA AFRI-ELI Postdoctoral Fellowship Program 5/15/2019-5/14/2021 \$150,000.00  
 Role: Secondary Supervisor co-PIs: Charmaine Koo (Fellowship Applicant, UMass Food Science); D. Julian McClements (Lead Supervisor, UMass Food Science); Hang Xiao (Secondary Supervisor, UMass Food Science)  
 Title: **Tailored delivery system for increased efficacy of phages against pathogenic bacteria in cows**

7. USDA NIFA AFRI Foundational Food & Human Health Program 1/1/2021-12/30/2023 \$500,000.00  
 Role: co-PI (UMass: \$134,475.00) co-PIs: Yanjiao Zhou (Lead PI, UConn Health)  
 Title: **Functional modulation of the microbiome-gut-brain axis by walnut consumption**
8. USDA AFRI-ELI Predoctoral Fellowship Program 6/15/2021-6/14/2024 \$180,000.00  
 Role: Primary Supervisor co-PIs: Cassandra Suther (Fellowship Applicant, UMass Food Science); Yanjiao Zhou (Secondary Supervisor, UConn Health)  
 Title: **Understanding the interactions between enteric viral infection, the gut microbiome, and the development of food allergies**
9. Capital Area for Food Protection-Kikkoman Biochemifa Food Safety Fellowship  
 10/1/2021-9/30/2022 \$2,500 + Supplies  
 Role: Primary Supervisor co-PIs: Pragathi Kamarasu (Fellowship Recipient, UMass Food Science);  
 Title: **Evaluation of ATP and ADP persistence in produce processing environments and comparison to bacterial load**
10. USDA NIFA AFRI Foundational Nanotechnology Program 2/1/2022-1/31/2025 \$743,868.00  
 Role: PI co-PIs: Marloes Peeters (Newcastle University); John Gibbons (UMass Food Science)  
 Title: **PARTNERSHIP: Development and evaluation of low-cost, easily deployable molecularly imprinted polymer technologies for agricultural viruses and toxins of concern**  
*\*One of the first international Partnership grants awarded by the USDA*
11. USDA NIFA AFRI Foundational Nanotechnology Program 2/1/2022-1/31/2025 \$743,997.00  
 Role: co-PI (UMass: ~\$231,000.00) co-PIs: Ke Du (Lead PI, Rochester Institute of Technology); Juhong Chen (co-PI, Virginia Tech)  
 Title: **PARTNERSHIP: Development of a nanoliter reactor for digitalization of nucleic acid-based detection platforms with broad application**
12. USDA NIFA AFRI Foundational Food Safety Program 2/1/2022-1/31/2024 \$298,000.00  
 Role: co-PI co-PIs: Yeonhwa Park (Lead PI, UMass Food Science)  
 Title: **Development of *Caenorhabditis elegans* as an infectivity model for noroviruses**
13. USDA NIFA AFRI Foundational Food & Human Health Program 2/1/2022-1/31/2024 \$300,000.00  
 Role: co-PI (Moore Lab: TBD) co-PIs: Zhenhua Liu (Lead PI, UMass Nutrition); Soonkyu Chung (co-PI, UMass Nutrition)  
 Title: **Incorporating Mushroom into Western-style Diet to Improve Gut Health: Combinational Impact on *Turicibacter*-Serotonin Interaction**
14. Fralin Life Sciences Institute, Virginia Agricultural Experiment Station (Virginia Tech) CeZAP Interdisciplinary Team-Building Pilot Grant Program 11/1/2021-6/30/2022 \$20,000.00\*  
 Role: co-PI co-PIs: Juhong Chen (Lead PI, Virginia Tech), Lijuan Yuan (co-PI, Virginia Tech)  
 Title: **Improving the limit of viral pathogen detection in food matrices using engineered phages to concentrate and purify viral particles**

15. USDA AFRI A1701 Foundational Critical Agricultural Research and Extension (CARE) Program  
2/1/2022-1/31/2025 \$300,000.00  
Role: Co-PI Co-PIs: Amanda Kinchla (Lead PI, UMass Food Science); D. Julian McClements  
(co-PI, UMass Food Science); Lynne McLandsborough (co-PI, UMass Food Science)  
Title: **Improving sanitation practices in food processing facilities using fluorescent visual tools**

*Pending (Recommended for Funding) Awards*

16. Prefense, Inc. 8/1/2022-7/31/2023 ~\$10,450.00  
Role: PI co-PIs: None  
Title: **Inactivation of enveloped and nonenveloped viral surrogates using novel inactivation agents**

*Completed Awards*

17. Prefense, Inc. 10/1/2020-6/30/2021 \$14,835.00  
Role: PI co-PIs: None  
Title: **Inactivation of enveloped and nonenveloped viral surrogates using novel inactivation agents**

18. Diversey, Inc. 2/15/2020-2/14/2021 \$9,954.00  
Role: PI co-PIs: None  
Title: **Investigation and validation of the efficacy of commonly used lab disinfectants on nucleic acids**

19. UMass Soft Materials for Life Sciences (SMLS) National Research Traineeship Program  
9/1/2019-8/31/2020 Role: Supervisor Fellow: Cassandra Suther (PhD Candidate)  
Title: **Novel detection technologies for foodborne viruses**

20. UMass CAFÉ Research-Extension Seed Funding Program 1/2019-1/2020 \$2,000.00  
Role: PI (Research) co-PIs: Amanda Kinchla (Lead Extension PI, UMass Food Science); Lynne  
McLandsborough (co-PI)  
Title: **Reducing food safety risk through use of GloGerm as a visual tool for improving sanitation  
practices at food facilities**

21. Swedish Research Council Conference Grant 5/25/2019-9/24/2019 200,000 SEK (~\$22,000.00 US)  
Role: co-PI (Defrayed Travel Costs) co-PIs: Kristina Broliden (Lead PI, Karolinska Institutet  
Department of Medicine); 15 other co-PIs from around world  
Title: **Launching a Global Network of Virologists: The World Society for Virology (WSV)**

22. UMass TEFD (Now CTFD) Mutual Mentoring Program 9/2018-6/2019 \$6,000.00  
Role: co-PI co-PIs: Genevieve Chandler (Lead PI, UMass College of Nursing); Haivan Hoang (co-PI,  
UMass English); Becky Miller (co-PI, UMass Biochemistry & Molecular Biology); Evan Ross (co-PI, UMass  
College of Natural Sciences [CNS]); Laura Hartenberger (co-PI, UMass CNS); Theodore Eisenman (co-PI,  
UMass Landscape Architecture & Regional Planning); Elizabeth Krause (co-PI, UMass Anthropology);  
Deepika Marya (co-PI, UMass DPIC); Sandy Roberts (co-PI, UMass Economics)

Title: **UWRITE: Interdisciplinary Junior Year Writing Faculty Support Program**

## Honors and Awards

2018	International Union of Food Science and Technology Young Scientist Award (one of seven winners from field of international candidates)
2018	International Academy of Food Science and Technology, Early Career Scientist Inductee
2018	IFT Emerging Leaders Network
2018-2021	American Society for Microbiology Young Ambassador from Massachusetts
2016	American Society for Microbiology Outstanding Student Abstract
2015	International Association for Food Protection Student Travel Scholarship
2014	International Association for Food Protection Developing Scientist Poster Competition (1 <sup>st</sup> Place)
2014-2016	Co-author on five other poster/technical presentation wins by collaborators
2010	Merrill Presidential Scholar (Awarded to top 31 students in 2010 class of over 3,000)
2010	Dean's Academic Excellence Award for Food Science (Awarded to top GPA of food science majors)
2010	Institute of Food Technologists Undergraduate Scholarship
2009-2010	McCormick & Company Junior/Senior Scholarship
2009-2010	Institute of Food Technologists Quality Assurance Division Abe Mittler Memorial Award
2010	Cornell Institute of Food Science Advisory Board Scholarship
2009	Cornell Food Science Summer Research Scholar (funded by Heinz)
2007	Cornell Institute of Food Science Advisory Board Scholarship
2007	Institute of Food Technologists Undergraduate Scholarship
~2006-2010	Additional Undergraduate Scholarships and Awards: David Brown Memorial Scholarship Western New York Institute of Food Technologists Scholarship National Starch & Chemical Company Scholarship Kraft Food Funds Award (two years) General Mills Award Diane C. Rosen Research Fund L. Isby, C. Fratt, W. Fratt Scholarship Ruth Herzog and Albert Flegenheimer Memorial Award Suburban Chamber of Commerce Scholarship Arcadia Study Abroad Scholarship Dean's List all academic semesters

*Students/Scholars Mentored as Major Advisor*

### PhD Students:

1. Anand Soorneedi	2018-Present
2. Cassandra Suther*	2018-Present
3. Minji Kim (Co-Advised with Min Chen, UMass Chemistry)	2018-Present
4. Pragathi Kamarasu*	2018-Present
5. Sloane Stoufer*	2019-Present

6. Christina Wormald\* 2020-Present  
\*Started as MS but transferred to PhD

**MS Students:**

1. Hao-Yuan Hsu (Thesis)	2017-2019
2. Kristin Graham (UMass AMB Program)	2018-2019
3. Varija Shah (UMass AMB Program)	2018-2019
4. Jonathan LaVerdiere (UMass AMB Program)	2019-2020
5. Shelby Tonelli (UMass AMB Program)	2019-2020
6. Ashtyn Parker-McDermott (UMass AMB Program)	2021-2022

**Undergraduate Students:**

1. Christina Wormald (Food Science)	2018-2020
2. Louisa Bachman (Food Science)	2019-2021
3. Melina Demokritou (Biochemistry)	2019-2022
4. Nicholas Holt (Biochemistry)	2019-2021
5. Tiffany Chan (Biology)	2020-2022
6. Randy Le (Biochemistry, part of UMass Lee-SIP Program)	2020-2022
7. Vrinda Chandar (Microbiology)	2021-Present
8. Brittany Gold (Microbiology)	2022-Present
9. Nathanael Krulewitch (Food Science)	2022-Present

**Visiting Scholars:**

1. Miyu Taniguchi	2018-2019
2. Tianyuan Zhou*	2021-Present

**Invited Talks/Lectures 20 total. 8 International from 5 different countries: Thailand (1), India (2), Republic of Korea (3), China (1), and Sweden (1). 12 National from 7 different states: MA (4), remote (2), CT (1), UT (1), MD (1), PA (1), NY (1), IA (1),**

- "Emerging pathogens: Topics and techniques." *Celebrating the 100<sup>th</sup> Anniversary of UMass Food Science*. Bangkok, Thailand. 1/12/2018.

- "Novel methods in the investigation, detection, and control of foodborne viruses." *UMass Food Science Strategic Research Alliance Meeting*. Amherst, MA, USA. 4/5/2018.

- "Study, detection, and control of foodborne viruses." *Lecture provided to the Jackson Laboratory for Genomic Medicine, Microbial Genomics Group*. Hosted by Dr. George Weinstock, Farmington, CT, USA. 6/18/2018.

- "The grey area of science: 'Predatory' publishers and questionable conferences." Roundtable Convenor and Facilitator. *International Association for Food Protection Annual Meeting*. Salt Lake City, UT, USA. 7/11/2018.

- "Novel methods in the investigation, detection, and control of foodborne viruses." *UMass Veterinary and Animal Sciences/Animal Biotechnology & Biomedical Sciences Seminar*. Amherst, MA, USA. 9/19/2018.

- "Novel methods in the investigation, detection, and control of foodborne viruses." *International Union of Food Science and Technology Meeting*. Mumbai, India. 10/25/2018.

- “How to conduct effective information searches in the science and technology of food.” Roundtable Panelist. *International Union of Food Science and Technology Meeting*. Mumbai, India. 10/25/2018.
- “Investigation, detection, and control of foodborne viruses.” *Seminar for Korean Ministry of Food and Drug Safety, Food Safety Division*. Osong, Republic of Korea. 10/31/2018.
- “Detection, study, and control of foodborne viruses.” *University Consortium of Food Science and Nutrition Annual Meeting*. Zhejiang Gongshang University, Hangzhou, China. 11/5/2018.
- “Novel methods for the prevention and control of foodborne pathogens.” *Seminar for U.S. FDA CFSAN Molecular Virology Team*. Laurel, MD, USA. 11/16/2018.
- “Next steps in understanding and controlling foodborne viruses.” *UMass Microbiology Department Seminar*. Amherst, MA, USA. 1/31/2019.
- “Investigation, detection, and control of foodborne viruses.” *UMass Molecular and Cellular Biology Program Seminar*. Amherst, MA, USA. 4/2/2019.
- “Study, detection, and control of foodborne viruses.” *USDA Agricultural Research Service Eastern Regional Research Center Seminar*. Wyndmoor, PA, USA. 5/29/2019.
- “Moore lab at UMass Amherst.” Short Talk. *Dr. Kathryn Boor Lab 25<sup>th</sup> Anniversary Reunion*. Ithaca, NY, USA. 7/27/2019.
- “Study, detection, and control of foodborne viruses.” *World Society for Virology Inaugural Meeting*. Karolinska Institute, Stockholm, Sweden. 8/26/2019.
- “Advances in the study, detection, and control of human noroviruses.” *Department of Food Science and Human Nutrition, Iowa State University*. Ames, IA, USA. 10/16/2019.
- “Investigation, detection and control of foodborne viruses.” *Seminar for Department of Food Science and Nutrition*. College of Fisheries Science, Pukyong National University, Busan, Republic of Korea. 11/4/2019.
- “Investigation, detection, and control of foodborne viruses.” Featured Plenary Speaker. *34<sup>th</sup> Annual Meeting of the Korean Society of Food Hygiene and Safety*. Gyeongju, Republic of Korea. 11/7/2019.
- “Online COVID-19 Panel.” *Life Science Café*. Held Remotely. 5/7/2020.
- “Alternative careers: Keeping you safe (and healthy).” *Boston Bacterial Meeting*. Held Remotely Due to COVID-19; originally to be held at Harvard University Science Center, Cambridge, MA, USA. 7/16/2020 but canceled because of the pandemic.
- “Applied and Environmental Techniques for the Control of Highly Transmissible Viruses.” Seminar (Virtual). Penn State University Department of Food Science. 9/17/2020.
- “Norovirus 101: Overview and Updates for the ‘Perfect Pathogen.’” Webinar. *Food Safety Month Webinar*, National Environmental Health Association. 9/22/20.
- “Unexpected Solutions: The Science of Problem Solving.” Online Panel. UMass College of Natural Sciences “In The Know” Webinar Series. 9/22/2020.
- “Applied and Environmental Paradigms for Understanding and Controlling SARS-CoV-2.” *COVID-19 International Conference*; Foundation for the Support of International Projects, Poland. 9/29/20.
- “Applied and Environmental Methods for the Study, Detection, and Control of Human Noroviruses.” *Pioneer Valley Microbiology Symposium*. Keynote Speech. Virtual. 1/29/2021.
- “Moore Lab - Applied and Environmental Virology Lab.” UMass IALS Models to Medicine Infection and Immunity Group Seminar Series. Virtual. 4/8/2021.

- “Applied and Environmental Techniques for the Control of Highly Transmissible Viruses.” Diversey, Inc. Research and Development Microbiology Group Seminar Series. Seminar. Virtual. 7/9/2021.
- “Considerations in Norovirus Environmental Transmission, Persistence, and Inactivation.” *Texas A&M Symposium of Bacterial and Viral Safety of Food Commodities and Food Contact Surfaces*. Seminar. Virtual. 8/18/2021.
- “Advances in Detection and Control of Human Noroviruses.” *IUFoST Early Career Scientist Section 1<sup>st</sup> Annual Meeting*. Plenary Lecture. 9/15/2021.
- “Development and Evaluation of a Portable Nanopore-based Sensing Device for Rapid Detection and Subtyping of Microbial Foodborne Pathogens.” USDA Nanotechnology Program Grantees’ Annual Meeting 2021. Technical Talk. Virtual. 10/6/2021.

**Proceedings/Poster Presentations:**

1. Wormald C, **Moore MD**, Fitzsimmons JA, Kinchla A. Improving Preventive Controls Prerequisite Education Programs to Address Food Safety Knowledge Gaps for Small and Medium Sized Food Processors. Poster (Virtual). *Pioneer Valley Microbiology Symposium*. UMass Amherst, Amherst, MA, USA. February 2021.
2. Wormald C, **Moore MD**, Fitzsimmons JA, Kinchla A. Improving Preventive Controls Prerequisite Education Programs to Address Food Safety Knowledge Gaps for Small and Medium Sized Food Processors. Poster. *IAFP Annual Meeting 2021*. Phoenix, AZ, USA. July 2021. \*Christina presented this as the winner of an IAFP Student Travel Award.
3. Wormald C, **Moore MD**, Fitzsimmons JA, Kinchla A. Improving Preventive Controls Prerequisite Education Programs to Address Food Safety Knowledge Gaps for Small and Medium Sized Food Processors. Oral Technical Presentation (with Corresponding Poster). *IFT 2021*. Virtual. July 2021. \*Christina won 1<sup>st</sup> Place in the Education, Extension & Outreach Division technical talk competition with this.
4. Kim M, Chen M, **Moore MD**. Real-time detection of norovirus capsid protein with an OmpG nanopore. Poster. *IAFP Annual Meeting 2021*. Phoenix, AZ, USA. July 2021. \*Minji presented this as the winner of an IAFP Student Travel Award.
5. Stoufer S, Varona M, Anderson J, Brehm-Stecher B, **Moore MD**. Understanding conditions that affect recovery of nonenveloped virus from aqueous solution using magnetic ionic liquids. Poster. *IAFP Annual Meeting 2021*. Phoenix, AZ, USA. July 2021.
6. Soorneedi A, **Moore MD**. Concentration and Detection of Human Noroviruses from Food and Environmental Samples Using Engineered Norovirus Binding Bacteria. Poster. *IAFP Annual Meeting 2021*. Phoenix, AZ, USA. July 2021.
7. Soorneedi A, Vaze N, Demokritou P, **Moore MD**. A novel engineered water nanostructure-based surface disinfection technique against coronaviruses. *World Society for Virology 2021: Tackling Global Viral Pandemics*. Short Technical Talk. Virtual. 16-18 June 2021.
8. Kamarasu P, **Moore MD**. Enhanced inactivation of foodborne viruses by cinnamaldehyde nanoemulsions require a lipid envelope. *World Society for Virology 2021: Tackling Global Viral Pandemics*. Short Technical Talk. Virtual. 16-18 June 2021.
9. Stoufer S, Varona M, Anderson J, Brehm-Stecher B, **Moore MD**. Optimizing recovery of non-enveloped virus from aqueous solution using magnetic ionic liquids. *World Society for Virology 2021: Tackling Global Viral Pandemics*. Short Technical Talk. Virtual. 16-18 June 2021.

10. Stoufer S, Varona M, Anderson J, Brehm-Stecher B, **Moore MD**. Recovery of Human Norovirus Surrogate from Aqueous Suspension Using Magnetic Ionic Liquids. *Pioneer Valley Microbiology Symposium*. UMass Amherst, Amherst, MA, USA. February 2021.
11. Kim M, Pham B, Chen M, **Moore MD**. Norovirus Detection Using Nanopore Sensing. Accepted Poster but Canceled due to SARS-CoV-2 Pandemic. *Gordon Research Conference Nanoscale Science and Engineering for Agriculture and Food Systems*, June 2020. (Canceled due to Pandemic).
12. Suther C, Stoufer S, **Moore MD**. Broad detection of norovirus GII using recombinase polymerase amplification and applications using intercalating dyes. Poster (Virtual). *International Association for Food Protection Annual Meeting 2020*, October 2020.
13. Huang R, Vaze N, Soorneedi A, **Moore MD**, Luo Y, Poverenov, Rodov V, Demokritou P. Engineered Water Nanostructures: A Novel Antimicrobial Platform to Improve the Safety and Quality of Leafy Vegetables. Poster (Virtual). *International Association for Food Protection Annual Meeting 2020*, October 2020.
14. Kim M, Pham B, Chen M, **Moore MD\***. Detection of Norovirus Capsid Protein using an Outer Membrane Protein G. Poster (Virtual). *International Association for Food Protection Annual Meeting 2020*, October 2020.
15. Kamarasu P, **Moore MD**. Enhanced inactivation of foodborne viruses by cinnamaldehyde nanoemulsions require a lipid envelope. Poster (Virtual). *International Association for Food Protection Annual Meeting 2020*, October 2020.
16. Stoufer S, Varona Ortiz O, Anderson J, Brehm-Stecher B, **Moore MD**. Recovery of Human Norovirus Surrogate from Aqueous Solution Using Magnetic Ionic Liquids. Poster (Virtual). *International Association for Food Protection Annual Meeting 2020*, October 2020.
17. Lin T-C, Haley L, Soorneedi A, Li J, **Moore MD**, Liu Z. Paradoxical effects of microbial-derived butyrate: The influences on colonic *Wnt*/ $\beta$ -catenin signaling and cell kinetics in in vitro and in vivo models. *Current Developments in Nutrition*, Volume 4, Issue Supplement 2, June 2020, Page 333, [https://doi.org/10.1093/cdn/nzaa044\\_032](https://doi.org/10.1093/cdn/nzaa044_032).
18. Kim M, Pham B, Chen M, **Moore MD**. Detection of Norovirus Capsid Protein using an Outer Membrane Protein G, 9th Annual Life Science Graduate Research Symposium. UMass Amherst, Amherst, MA, USA. November 22, 2019.
19. Suther C, **Moore MD**. Quantification and discovery of PCR inhibitors found in food matrices commonly associated with foodborne viruses. *International Association for Food Protection Annual Meeting 2019*, July 2019.
20. Kim M, Pham B, Chen M, **Moore MD**. Detection of norovirus capsid protein using outer membrane protein G. *Korean Society of Food Science and Technology Annual Meeting 2019*, June 2019. Seoul, Republic of Korea.
21. Folster JP, Tagg K, **Moore MD**, Kim J, McCullough A, Reynolds J, Bumpus-White P. Mechanisms of antimicrobial resistance among enteric bacteria isolated from humans in the United States, 2016. *American Society for Microbiology Microbe 2019*, AAR-576, June 2019.
22. Moore MD, Faircloth J, Jaykus L-A. Development and Evaluation of Nucleic Acid Aptamers to a Novel Target Protein for Treatment and Detection of Human Norovirus. *International Association for Food Protection Annual Meeting*, Salt Lake City, Utah. 7/17/2018.
23. Montazeri N, Moorman E, Moore MD, Escudero-Abarca B, Jaykus L-A. Organic Load Impacts the Virucidal Efficacy of Heat and Chlorine against Human Norovirus and Tulane Virus, a Cultivable

Surrogate. International Association for Food Protection Annual Meeting, Salt Lake City, Utah. 7/17/2018.

*Prior to UMass:*

24. Dinsmore BA, Zhang S, Lane C, Lauer AC, Chen JC, **Moore MD**, Rigney Z, den Bakker H, Fields PI, Deng X. SeqSero2 – A Tool for *Salmonella* Serotype Determination Using Whole-Genome Sequencing Read Data. *2<sup>nd</sup> ASM Conference on Rapid Applied Microbial Next-Generation Sequencing and Bioinformatic Pipelines*, October 2017.
25. **Moore MD**, Faircloth J, Jaykus L-A. Development and Evaluation of Nucleic Acid Aptamers to a Novel Target Protein for Treatment and Detection of Human Norovirus. *International Association for Food Protection Annual Meeting*, July 2017.
26. Montazeri N, Moorman E, **Moore MD**, Escudero-Abarca B, Jaykus L-A. Organic Load Impacts the Virucidal Efficacy of Heat and Chlorine against Human Norovirus and Tulane Virus, a Cultivable Surrogate. *International Association for Food Protection Annual Meeting*, July 2017.
27. **Moore MD**. Human Norovirus: Basics, Challenges, and Recent Developments. Invited Lecture. *New Jersey Association for Food Protection Fall Meeting*, October 2016.
28. **Moore MD**, Jaykus L-A. An Improved, Rapid Plate-Based Assay for Estimating Human Norovirus Infectivity. Poster. *International Association for Food Protection Annual Meeting*, July 2016.
29. **Moore MD**, Mertens B, Bobay B, Jaykus L-A. Heat Resistance Markedly Varies Between Difference Strains of Human Norovirus. Technical Presentation. *International Association for Food Protection Annual Meeting*, July 2016.
30. Manuel C, **Moore MD**, Jaykus L-A. Inactivation of GI.6 and GII.4 Human Norovirus by Silver Dihydrogen Citrate. Poster. *International Association for Food Protection Annual Meeting*, July 2016.
31. Escudero-Abarca B, Outlaw J, **Moore MD**, Jaykus L-A. Identification of ssDNA Aptamers with Binding Affinity to Genogroup I Human Norovirus Using a Novel Selection Process. Poster. *International Association for Food Protection Annual Meeting*, July 2016.
32. Almand E, Goulter R, **Moore MD**, Jaykus L-A. Binding of Human Norovirus to a Broadly Reactive Bacterial Ligand. *International Association for Food Protection Annual Meeting*, July 2016.
33. **Moore MD**, Mertens B, Bobay B, Jaykus L-A. Ligand Docking and Molecular Dynamics Simulations Predict Differences in Heat Susceptibility of Human Norovirus Strains Observed with Aptamer and Receptor Binding Assays. Poster. *25<sup>th</sup> International Committee on Food Microbiology and Hygiene Conference*, July 2016.
34. **Moore MD**, Mertens B, Bobay B, Jaykus L-A. Use of DNA Aptamers as Alternative Ligands for Estimation of Infectious Human Norovirus Particles. Poster. *American Society for Microbiology Annual Meeting*, June 2016.
35. \***Moore MD**, Mertens B, Bobay B, Jaykus L-A. Differences in Heat Susceptibility of Human Norovirus Strains is Predicted by Docking and Molecular Dynamics Simulations. Poster. *American Society for Microbiology Annual Meeting*, June 2016. \*Outstanding Student Abstract Competition Winner.
36. \*Almand E, **Moore MD**, Jaykus L-A. Characterizing Human Norovirus Binding to Bacterial Ligands. Poster. *American Society for Microbiology Annual Meeting*, June 2016. \*E. Almand Selected as Outstanding Student Abstract Competition Winner.

37. Mertens BS, **Moore MD**, Jaykus L-A, Velev OD. Characterization and Control of Norovirus Interactions and Their Impact on Virus Stability and Infectivity. Poster and Technical Presentation. *Annual Triangle Soft Matter Workshop*, May 2016.
38. Mertens BS, **Moore MD**, Jaykus L-A, Velev OD. Characterization and Control of Norovirus Interactions and Their Impact on Virus Stability and Infectivity. Poster and Technical Talk. *Molecular Biotechnology Training Program Symposium*, October 2015.
39. \*Almand E, **Moore MD**, Jaykus L-A. Binding of Human Norovirus to Fecally Isolated Bacteria. Poster and Technical Talk. *North Carolina American Society for Microbiology Meeting*, October 2015. \*E. Almand winner of Thoyd Melton Award for Outstanding Graduate Student Talk.
40. Mertens BS, **Moore MD**, Jaykus L-A, Velev OD. Characterization and Control of Norovirus Interactions and Their Impact on Virus Stability and Infectivity. Technical Presentation. *European Colloid and Interface Society Meeting*, September 2015.
41. **Moore MD**, Jaykus L-A. Evaluation of a Rapid Isothermal Amplification Method for the Direct Detection of Human Norovirus in Complex Samples. Poster. *International Association for Food Protection Annual Meeting*, July 2015.
42. **Moore MD**. Use of a Nucleic Aptamer-based Method to Study Thermal Inactivation of Human Norovirus. Invited Speaker. *Carolina Association for Food Protection Meeting*, January 2015.
43. Mertens BS, **Moore MD**, Jaykus L-A, Velev OD. Characterization and Control of Norovirus Interactions. Poster. *Schoenborn Graduate Research Symposium*, January 2015.
44. **Moore MD**, Jaykus L-A. Use of Nucleic Acid Aptamers in Concentration, Detection, and Characterization of Human Norovirus. Technical Talk and Presentation. *10<sup>th</sup> Annual Molecular Biotechnology Training Program Symposium*, November 2014.
45. **Moore MD**, Escudero-Abarca BI, Suh SH, Jaykus L-A. Use of a Nucleic Acid Aptamer-Based Method to Study Thermal Inactivation of Human Norovirus. Poster. *Celebration of Food Science and Food Manufacturing Conference*, October 2014.
46. Manuel CS, **Moore MD**, Jaykus L-A. Rapid Destruction of Both the Capsid and Genome of Human Norovirus Occurs During Exposure to Copper Surfaces. Poster. *Celebration of Food Science and Food Manufacturing Conference*, October 2014.
47. **Moore MD**, Escudero-Abarca BI, Suh S, Manuel C, Jaykus L-A. Nucleic Acid Aptamers Mimic Histo-Blood Group Antigens for Probing Thermal Inactivation of Human Norovirus Strains. Poster. *International Society for Food and Environmental Virology Conference*, September 2014.
48. \***Moore MD**, Escudero-Abarca BI, Suh S, Jaykus L-A. Use of a Nucleic Acid Aptamer-Based Method to Study Thermal Inactivation of Human Norovirus. Poster. *International Association for Food Protection Annual Meeting*, August 2014. \*First Place in Developing Scientists Poster Competition.
49. **Moore MD**, Escudero-Abarca BI, Suh S, Jaykus L-A. Development of a Recombinase Polymerase Amplification Assay for the Rapid Isothermal Detection of Human Norovirus. Poster. *International Association for Food Protection Annual Meeting*, August 2014.
50. **Moore MD**, Escudero-Abarca BI, Suh S, Jaykus L-A. Development and Characterization of Nucleic Acid Aptamers for the Detection of Human Norovirus across a Broad Group of Genotypes. Poster. *International Association for Food Protection Annual Meeting*, August 2014.
51. \*Manuel C, **Moore MD**, Jaykus L-A. Rapid Destruction of Human Norovirus Capsid and Genome Occurs during Exposure to Copper-containing Surfaces. Technical Presentation. *International Association for Food Protection Annual Meeting*, August 2014. \*C. Manuel won First Place in Developing Scientists Technical Presentation Competition.

52. \*Mertens BS, **Moore MD**, Jaykus L-A, Velev OD. Characterization and Control of Surfactant and Copper-Mediated Norovirus Interactions. Poster. *ECL- Biological and Pharmaceutical Complex Fluids II Meeting*, August 2014. \*B. Mertens won Poster Competition.
53. Mertens BS, **Moore MD**, Jaykus L-A, Velev OD. Characterization and Control of Surfactant and Copper-Mediated Norovirus Interactions. Technical Presentation. *American Chemical Society Colloids and Surface Science Symposium*, June 2014.
54. Mertens BS, **Moore MD**, Jaykus L-A, Velev OD. Characterization and Control of Surfactant-Mediated Norovirus Interactions. Poster. *Triangle Soft Matter Workshop*, May 2014.
55. \*Mertens BS, **Moore MD**, Jaykus L-A, Velev OD. The Impact of Surfactants on Norovirus Colloidal Stability and Surface Adhesion. Poster. *Schoenborn Graduate Research Symposium*, January 2014. \*B. Mertens won Poster Competition.
56. Mertens BS, **Moore MD**, Jaykus L-A, Velev OD. The Impact of Surfactants on Norovirus Colloidal Stability and Surface Adhesion. Poster. *9<sup>th</sup> Annual Molecular Biotechnology Training Program Symposium*, November 2013.
57. **Moore MD**, Jaykus L-A. Selection of ssDNA Aptamers Specific to Human Norovirus Proteins for Concentration, Detection, and Analysis. Poster. *8<sup>th</sup> Annual Molecular Biotechnology Training Program Symposium*, November 2012.
58. Escudero-Abarca B, Rawsthorne H, **Moore MD**, Jaykus L-A. Selection of DNA Aptamers with Binding Affinity to Human Norovirus. Poster. *International Association for Food Protection Annual Meeting*, July 2012.
59. **Moore MD**, Jaykus L-A. Detection of Human Norovirus in Complex Samples Using Aptamers. Poster. *7<sup>th</sup> Annual Molecular Biotechnology Training Program Symposium*, November 2011.

#### Features/Mentions in Press:

1. Healio.com: "UMass grad student receives fellowship to study effect of norovirus on food allergies." September 7, 2021.
2. Dave Bloom, SnackSafely.com: "Is Infection with a Virus Important to Preventing Food Allergies? USDA Funds Study to Find Out." August 16, 2021.
3. USDA National Institute of Food and Agriculture (NIFA) Update: "Food Science Grad Student Awarded USDA Fellowship for Food Allergy Research." July 28, 2021.
4. Institute of Food Technologists (IFT) Food News Now: "Food Science Grad Student Awarded USDA Fellowship for Food Allergy Research." July 26, 2021.
5. AAAS EurekaAlert!: "Food Science Grad Student Awarded USDA Fellowship for Food Allergy Research." July 23, 2021.
6. Inside UMass Newsletter/Press Release: "Food Science Grad Student Awarded USDA Fellowship for Food Allergy Research." July 22, 2021.
7. UMass CNS News Release: "USDA funds UMass FUEL program, which provides undergrads with research and internship experience in preparation of joining the growing food science industry." July 17, 2020.
8. UMass CNS Newsletter: "Team of UMass scientists look forward to new discoveries from computing cluster funding." January 31, 2020.
9. *The Hill*: "Can I shop for groceries safely during the pandemic?" March 13, 2020.
10. EatOrToss.com: "Coronavirus and COVID-19: Is it safe to order from restaurants? Is takeout or delivery better?" March 24, 2020.

11. EatOrToss.com: "Minimizing risk and maintaining sanity while grocery shopping amid COVID-19." April 1, 2020.
12. *Bon Appetit*: "What to know about shopping and cooking during coronavirus." April 13, 2020.
13. *Al Jazeera+*: "Top 10 grocery safety tips to avoid coronavirus." April 10, 2020.
7. *Al Jazeera+*: "Ordering delivery? Here's 6 tips to avoid coronavirus." May 7, 2020.
8. UMass Press Release: "USDA funds UMass FUEL program, which provides undergrads with research and internship experience in preparation of joining the growing food science industry." July 17, 2020.
9. UMass Press Release: "Is it Safe to Spin-Dry Leafy Greens in a Washing Machine?" April 21, 2020.
10. UMass Press Release: "Food scientists study the safety of drying leafy greens in conventional washing machines, a common practice for small farmers." May 20, 2020.
11. Massachusetts WGBH (NPR Boston): "BostonTalks: Happy Hour." Scheduled for March 19, 6-9 PM; March event canceled Permanently Due to COVID-19 (all other talks for year already scheduled with restaurant industry, etc.).
12. ScienceNews: "Norovirus close-ups might help fight stomach flu." June 19, 2019.
13. *Food Protection Trends*, Beyond the Bio Feature: "Matthew Moore: Celebrating a 'New Year' at UMass." May-June 2019 Issue.
14. IAFP Social Media Accounts: "Member Feature: Matthew Moore." August 8, 2019.
15. UMass Press Release: "UMass Researchers Develop New Technology to Detect Foodborne Disease." October 31, 2019.
16. Inside UMass Newsletter: "Chen Receives NSF Grant to Support Computing Cluster." November 21, 2019.
17. *Washington Post*: "Does the lack of linens in restaurants present a food-safety issue?" July 24, 2019.
18. *Capsid*, NoroCORE Newsletter: Ex- and Current Student Profiles. March 2018.
19. Lab Talk with Laura (UMass Radio Show): Featured Guest. March 4, 2018.
20. Science Trends: "Detection on the Go for a Common Viral Pathogen." March 8, 2018.
21. Science Trends: "Is it a Threat? A Novel Tool in Determining Human Norovirus Infectivity." March 9, 2020.
22. Institute of Food Science and Technology Website: "IUFOST Announces Award Winners and Competition Finalists." September 11, 2018.

## *Editorial Service*

### ***Foods***

- Editorial Board Member (2020-Present)

### ***Journal of Food Protection***

- Editorial Board Member (2019-Present)
- Management Committee Member (2019-2020); Vice Chair (2020-2022); Chair (2022-2024)

### ***Food Science and Technology Abstracts***

- Editorial Advisory Board (2019-Present)

### ***Applied and Environmental Microbiology***

- Editorial Board Member (2021-Present)

### ***Emerging and Re-Emerging Viral Pathogens (Textbook)***

- Editorial Board, Vol. 1 and 2, Ed. 1, Published 2019, Elsevier.

### ***Frontiers in Sustainable Food Systems***

- Review Editor (2018-Present)
- Guest Associate Editor, Research Topic “Using Genomics to Inform Food Safety Inspection Systems,” (2021-Present)

### ***Frontiers in Microbiology, Frontiers in Plant Science***

- Editorial Board (2021-Present); Review Editor, Virology Section (2020-Present)

### ***Foodborne Viruses: Properties, Detection, and Control (Textbook)***

- Editor, In Preparation, Royal Society of Chemistry.

### **USDA National Institute of Food and Agriculture (NIFA) Small Business Innovation Research Program**

- Grant Review Panelist (1 Year)

### **USDA NIFA Higher Education Challenge Program**

- Grant Review Panelist (1 Year)

### **National Science Foundation**

- Application Review Panelist (1 panel in 2020; 2 panels in 2021; 1 panel in 2022)

### **Numerous Journals**

- Peer Reviewer: 154 reviews from start date (January 2018 – May 2022) and 46 times in 2021, for journals including:

*Foods; Microbial Pathogenesis; Archives of Virology; Molecular Immunology; Frontiers in Microbiology; Food Control; Viruses; Food Research International; Pathogens; Applied and Environmental Microbiology; Journal of Advances in Microbiology; Toxins; Microbiology Open; PLoS One; Emerging Microbes & Infection; and Journal of Food Protection.*

### ***University Service***

#### **UMass iCons Food, Water, and Climate Track Steering Committee**

- Member (2021-Present)

#### **UMass STEM Junior Year Writing Working Group**

- Member (2020-2021)

#### **UMass Institutional Biosafety Committee**

- Member (2019-Present)

#### **UMass Writing Committee (Faculty Senate)**

- Member (2018-2021)

#### **UMass Molecular and Cellular Biology (MCB) Program Graduate Operations Committee**

- Member (2018-Present)

#### **UMass MCB Program External Fellowship Committee**

- Member (2018-Present); Also have volunteered to give students preliminary advice/feedback on proposals during the summer (2019-Present)

#### **UMass Institute for Applied Life Sciences**

- Member: Models to Medicine, Center for Bioactive Delivery, and Center for Personalized Health Monitoring (2018-Present)

### ***Departmental Service***

#### **UMass Food Science Undergraduate Recruiting Committee**

- Chair (2018-Present): Oversee recruiting efforts and meetings with interested prospective students; supervise 3-7 food science undergraduate workers in completing numerous outreach activities throughout year

**UMass Food Science Departmental Personnel Committee**

- Member (2 terms, 2018-2020)

**UMass Undergraduate Food Science Club**

- Faculty Advisor (2018-Present)

**UMass Food Science College Bowl Competition Team**

- Faculty Advisor

**UMass Food Science Tenure-Track Assistant/Associate Professor Search Committee**

- Member (2018-2019; one search)

**UMass Food Science Department Head Search Committee**

- Member (2020)

**UMass Food Science Undergraduate Writing Task Force**

- Chair (Will start 2021): Will survey all writing-related assignments of the undergraduate food science program and issue internal findings to department to inform future curriculum development and accreditation renewal efforts with IFT

**Undergraduate Major Advisor (Academic Advising)**

- Academic advisor for 8 food science undergraduate majors

*Service to Scientific Organizations*

**American Society for Microbiology (ASM)**

- Young Ambassador from Massachusetts (2018-2021)

**International Association for Food Protection (IAFP)**

- Vice Chair/Chair: IAFP Developing Food Safety Professionals PDG (VC: 2018-2020; C: 2020-2022)
- Judge: Food Safety Innovation Award (2019-2021)
- Organizer and/or convener for at least 10 IAFP Annual Meeting sessions/roundtables

**Institute of Food Technologists (IFT)**

- New Professionals Working Group (2019-2021)
- Annual Meeting Scientific Program Advisory Panel (2020)
- Scientific Program Task Force (2020)
- Judge: Smart Snacks for Kids Product Development Competition (2020, 2022)
- Judge: IFT Travel Scholarship (2022)

**World Society for Virology (WSV)**

- Founding Treasurer and Co-Director (2017-)
- Member: Training and Career Development Committee (2017-Present)

**International Union of Food Science and Technology**

- Member: Global Food Safety and Finance Committees (2018-2020)

**Animal Digestible Food Packaging Initiative**

- Initiative Advisor (2018-)

**Affiliations:**

Professional: Institute of Food Technologists (15 years); International Association for Food Protection (14 years); American Society for Microbiology (6 years); American Society for Virology (5 years); World Society for Virology (5 years); National Center for Faculty Development and Diversity (6 years); North Carolina State University Food Science Club (5 years); Cornell University Food Science Club (4 years).  
Honorary: Phi Tau Sigma (Food Science Honor Society, 12 years); Phi Kappa Phi (North Carolina State University Honor Society); Ho-Nun-Dee-Kah (Cornell University Agriculture College Honor Society).

### **Classroom Teaching**

**1. FOOD-SCI 391C Food Science Junior Year Writing; 3 Credits; Spring 2019, Fall 2019**

**2. FOOD-SCI 797V Special Topics in Biosensors and Pathogen Detection; 1 Credit; Spring 2019, Fall 2019, Spring 2020, Fall 2020, Fall 2021**

**3. FOOD-SCI 567 Food Microbiology Lecture; 3 credits; Fall 2020, Fall 2021**

### **4. Invited Guest Lectures and Other Teaching Development:**

- Have met with an personally helped >30 students with career development/resumes/cover letters
- 2018, "Face Time with Faculty" to Food Science Club
- 2018, informal presentation with advice for ~10 graduate students on how to approach our written comprehensive exam
- 2018, Attended multiple educational seminars related to improving teaching: "Six Principles of an Inclusive Syllabus"; "Teaching Peer Review: Sharing What Works in Your Writing-Intensive Classroom"; In person SSC and SPIRE Advisor Training; "Racial Difference in Our Writing-Intensive Courses"; "Expanding the Student Success Network and Utilization of SSC Campus"
- 2018-2019, helped write questions for and grade food science written comprehensive exams for both 2018 and 2019. It was discontinued after 2019, with food science only requiring an oral comprehensive starting 2020
- 2019, guest lecture for AS 371 Animal Diseases class (Cynthia Baldwin, Instructor)
- 2019, guest lecture for Food Science Honors class (Yeonhwa Park, Instructor)
- 2019, guest lecture for FOOD-SCI 106 Global Food Trends (David Sela, Instructor)
- 2019, provided talk and served as panelist about graduate school in food science to interested students, hosted by the Food Science Club
- 2019, guest lecture for NATSCI 191CNS95 Honors class about viruses (Anand Soorneedi, Instructor)
- 2020, guest lecture for Food Science Honors class (Yeonhwa Park Instructor)
- 2020, did interview for study "Teacher Perceptions of Race in Writing-in-the-Disciplines (WID) Courses" by Haivan Hoang