

## Matthew D. Moore, Ph.D.

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

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### Education:

- 2016 *Doctor of Philosophy in Food Science, minors in Biotechnology and Food Safety*, North Carolina State University. Final GPA: 4.0/4.0
- 2010 *Bachelor of Science in Food Science, summa cum Laude with Distinction in Research* Cornell University. Final GPA: 4.14/4.33

### 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

### Peer-Reviewed Publications:

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 GII.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 GII.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 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. Determination and characterization of human norovirus binding to gut-associated bacteria and identification of candidate ligands involved. *BMC Research Notes* 12:607.
23. Abdel-Moneim A, **Moore MD**, Naguib M, Romalde JL, Soderlund-Venermo M. WSV 2019: The 1<sup>st</sup> Committee Meeting of the World Society for Virology. *Virologica Sinica* (In Press).
24. 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.

#### Other Publications:

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. Norovirus has some friends? Enteric bacterial interaction with noroviruses. *Microbiology Today*, May 2019.
4. **Moore MD**, Jaykus L-A. Editor. *Foodborne Viruses: Properties, Detection, and Control*. Textbook, Royal Society of Chemistry. (In Preparation).

#### Publications Undergoing Peer Review and In Preparation for Submission:

1. Manuel C, Suther C, **Moore MD**, Jaykus L-A. Comparison of a one-step real time RT-PCR and a nested real-time PCR for detection of genogroup II noroviruses. *High Throughput*. (Under Revision).
2. **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).
3. Mertens BS, **Moore MD**, Jaykus L-A, Velez OD. Rational Development of Safe and Efficient Norovirus Disinfectants with Ionic Copper. *American Chemical Society Infectious Diseases* (In Preparation).
4. 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).
5. **Moore MD**, Faircloth J, Jaykus L-A. Generation of ssDNA aptamers against a novel viral target. *Sensors*, Special Issue: "Aptamers and Applications," (In Preparation).
6. 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).
7. Hsu H, Kamarasu P, **Moore MD**. Developments in Inactivation of Infectious Human Noroviruses. *Frontiers in Sustainable Food Systems*. (In Preparation).
8. Suther C, **Moore MD**. Recent Developments Isothermal Amplification Methods for the Detection of Food- and Waterborne Viruses. *Analyst*. (In Preparation).

9. Soorneedi A, **Moore MD**. Developments in human norovirus replication and their implications for food science. *Food Science and Human Wellness*. (In Preparation).
10. Hsu H, Kamarasu P, **Moore MD**. Surfactants enhance essential oil inactivation of bacteriophage MS2. *PLoS One*. (In Preparation).
11. Kamarasu P, Hsu H, **Moore MD**. Essential oil nanoemulsion-based viral inactivation requires a lipid membrane. *American Chemical Society Infectious Diseases*. (In Preparation).
12. Stoufer S, Suther C, **Moore MD**. False positives are highly unlikely with utilization of intercalating dyes with recombinase polymerase amplification. *Analyst*. (In Preparation).
13. Stoufer S, Suther C, **Moore MD**. Inhibition of molecular detection by molecules in foods: a review. *Food Science and Human Wellness*. (In Preparation).
14. Suther C, **Moore MD**, Zhou Y. The gut microbiome and the big eight. *Nature Foods*. (In Preparation).

**Service to Scientific Community:**

**Editorial Board**, and **Management Committee**, *Journal of Food Protection* (2019-)

**Editorial Advisory Board**, *Food Science and Technology Abstracts* (2019-)

**Editor**, *Foodborne Viruses: Properties, Detection, and Control*. Royal Society of Chemistry. Textbook. (In Preparation, 2019-)

**Review Editor**: *Frontiers in Sustainable Food Systems*, Agro Food Safety Section (2018-)

**Guest Editor**: *High Throughput*, "High Throughput Techniques for Enteric Viruses" (2018-)

**Editorial Board**, *Emerging and Re-Emerging Viral Pathogens*, textbook, 1<sup>st</sup> Ed., 2019, Elsevier.

**American Society for Microbiology**, ASM Young Ambassador from Massachusetts (2018-2021)

**World Society for Virology**

- **Founding Treasurer and Co-Director**, member of Training and Career Development Committee (2017-Present); <https://ws-virology.org/>

**Institute of Food Technologists (IFT)**, New Professionals Working Group (2019-)

**IFT 2020 Annual Meeting** Program Committee

**International Union of Food Science and Technology**, Member: Global Food Safety and Finance Committees (2018-)

**Grant Proposal Review Panelist**: USDA NIFA Small Business Innovation Research Program (1 year) and Higher Education Challenge Program (1 year); NSF Application Review Panel 2020

**Peer reviewer** 26 times in 2019, for journals including:

-*Microbial Pathogenesis; Archives of Virology; Molecular Immunology; Frontiers in Microbiology; Food Control; Viruses; Food Research International; Pathogens; Journal of Advances in Microbiology; Toxins; Microbiology Open; PLoS One; Water; Present Knowledge in Food Safety and Antimicrobials in Food* (textbook proposals, CRC Press); *ad hoc* reviewer for the *Journal of Food Protection*

**Organizer and convener** for seven International Association for Food Protection Annual Meeting sessions/roundtables

**Chair**: IAFP Developing Food Safety Professionals PDG

**Initiative Advisor**: Animal Digestible Food Packaging Initiative (2018-)

**Volunteer Mentor**: CUeLINKS online community for Cornell alumni to mentor undergraduates

**Phi Tau Sigma** National Election Committee (1 year)

International Association for Food Protection Student Professional Group Secretary (1 year) and Treasurer (1 year)

**Institute of Food Technologists Student Association** Central Atlantic Area Representative (1 year) and Past Area Representative (1 year)

North Carolina State Food Science Club Wine and Cheese Committee Chair (2 years) and Member (5 years)

Cornell University Food Science Club Vice President (1 year) and Treasurer (1 year)

#### **University Service:**

- 2019-Present: University of Massachusetts Amherst Institutional Biosafety Committee
- 2018-Present: University of Massachusetts Amherst Writing Committee
- 2018-Present: Molecular and Cellular Biology program Graduate Operations Committee
- 2018-Present: Molecular and Cellular Biology Program External Fellowship Committee
- 2018-Present: UMass Department of Food Science Recruiting Committee, Chair
- 2018-Present: UMass Institute for Applied Life Sciences: Models to Medicine, Center for Bioactive Delivery, and Center for Personalized Health Monitoring

#### **Grant Awards:**

-Chandler G, Hartenberger L, Eisenman T, Hoang H, **Moore MD**, Krause E, Miller B, Ross E, Marya D, Roberts S. 2018-2019. \$6,000. UWRITE: Interdisciplinary Junior Year Writing Faculty Support Program. UMass TEFD Mutual Mentoring Program. Completed.

-**Moore MD** (PI), Jones M. 2019-2022. \$249,987. Utilization and evaluation of bacteria for human norovirus concentration prior to detection. USDA AFRI A1331 Program. Ongoing.

-**Moore MD** (PI), Chen M. 2019-2022. \$489,830. Development and evaluation of a portable nanopore-based sensing device for rapid detection and subtyping of microbial foodborne pathogens. USDA AFRI A1511 Program. Ongoing.

-**Moore MD** (Lead Research PI), Kinchla A (Lead Extension PI), McLandsborough L. 2019-2020. \$2,000. Reducing food safety risk through use of GloGerm as a visual tool for improving sanitation practices at food facilities. UMass CAFÉ Research-Extension Seed Funding Program. Reduced Amount Awarded, Ongoing.

-Koo (Fellowship Applicant) C, McClements DJ (lead supervisor), **Moore MD** (secondary supervisor), Xiao H. 2019-2021. \$150,000. Tailored delivery system for increased efficacy of phages against pathogenic bacteria in cows. USDA AFRI-ELI Postdoctoral Fellowship Program. Recommended for Award, In Processing.

-Chen J (PI), **Moore MD**, Bai P, Liang C, Conlon E. 2019-2022. \$415,000. MRI: Acquisition of a GPU computing cluster for UMass Institute of Applied Life Sciences. NSF Ongoing.

-Kinchla A (PI), **Moore MD**, McLandsborough L. 10/1/2019-9/20/2022. \$71,294.28. Risky business? Conducting a risk assessment of postharvest operations using washing machines for leafy greens. Massachusetts Department of Agricultural Resources/USDA. Ongoing.

-McLandsborough L (PI), Decker E, **Moore MD**. 9/1/2020-8/31/2025. \$82,601. Food science undergraduate experiential learning (FUEL) scholars program: a yearlong REEU. USDA NIFA REEU. Ongoing.

#### **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-Now 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

**Teaching Experience in Higher Education:**

- Instructor: FOOD-SCI 391C Junior Year Writing. Spring and fall 2019 semesters. 3 credits.
- Instructor: FOOD-SCI 797V Special Topics in Biosensors and Pathogen Detection. Spring 2019. 1 credit.
- Invited Lectures: FS 405/505 Food Microbiology. Fall 2016. Lead Instructor: Dr. Sophia Kathariou.
- Teaching Assistant: FS 406/506 Food Microbiology Lab. Spring 2012 and Spring 2013. Lead Instructor: Dr. Lee-Ann Jaykus.
- Relevant Coursework: North Carolina State University Summer Teaching Institute; Cornell University EDUC 2400 (The Art of Teaching).

**Proceedings:**

1. 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.
2. 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.
3. 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.
4. 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.
5. **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.
6. 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.
7. **Moore MD**. Human Norovirus: Basics, Challenges, and Recent Developments. Invited Lecture. *New Jersey Association for Food Protection Fall Meeting*, October 2016.
8. **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.
9. **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.
10. 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.
11. 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.
12. 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.
13. **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.
14. **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.
15. \***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.

16. \*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.
17. 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.
18. 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.
19. \*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.
20. 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.
21. **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.
22. **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.
23. Mertens BS, **Moore MD**, Jaykus L-A, Velev OD. Characterization and Control of Norovirus Interactions. Poster. *Schoenborn Graduate Research Symposium*, January 2015.
24. **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.
25. **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.
26. 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.
27. **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.
28. \***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.
29. **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.
30. **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.



31. \*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.
32. \*Mertens BS, **Moore MD**, Jaykus L-A, Velev OD. Characterization and Control of Surfactant and Copper-Mediated Norovirus Interactions. Poster. *ECI- Biological and Pharmaceutical Complex Fluids II Meeting*, August 2014. \*B. Mertens won Poster Competition.
33. 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.
34. Mertens BS, **Moore MD**, Jaykus L-A, Velev OD. Characterization and Control of Surfactant-Mediated Norovirus Interactions. Poster. *Triangle Soft Matter Workshop*, May 2014.
35. \*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.
36. 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.
37. **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.
38. 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.
39. **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.

#### **Independent Course Work and Training:**

- Graduate Student Summer Teaching Institute, North Carolina State University, June 2011
- Transmission Electron Microscopy Short Course, North Carolina State University Analytical Instrumentation Facility, May 2014
- Introduction to Bioinformatics, North Carolina State University, sat in on class

#### **Mentorship Activities:**

University of Massachusetts, Principal Investigator,

- Currently supervise lab for 10 students: 4 Ph.D., 1 M.Sc., and 5 B.Sc. students
- Currently academic advisor for 7 undergraduates

#### **International Students and International Visiting Scholars Disclosure:**

A. Soorneedi, India, PhD Student  
 M. Kim, South Korea, PhD Student  
 P. Kamarasu, India, PhD Student

North Carolina State University, Research Assistant

- Worked closely with undergraduate student on disinfection project

Cornell University College of Agriculture and Life Sciences Undergraduate Tutor

-Tutored four students, courses included Introduction to Chemistry and Organic Chemistry courses (3 years)

**Affiliations:**

Professional: Institute of Food Technologists (12 years); International Association for Food Protection (11 years); American Society for Microbiology (3 years); American Society for Virology (2 years); World Society for Virology (2 years); National Center for Faculty Development and Diversity (3 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, 10 years); Phi Kappa Phi (North Carolina State University Honor Society); Ho-Nun-Dee-Kah (Cornell University Agriculture College Honor Society).