

MARC PAUL VERHOUGSTRAETE

CURRICULUM VITAE

The University of Arizona, Mel and Enid Zuckerman College of Public Health
1295 N. Martin Avenue, Drachman Hall, Tucson, Arizona 85724
(520) 621-0254 mverhougstraete@email.arizona.edu

CHRONOLOGY OF EDUCATION

- 2001-2005 Lansing Community College, Lansing, MI, Associates Degree: Natural Science – Magnum Cum Laude
- 2005-2007 Michigan State University, East Lansing, MI, College of Natural Science, Department of Zoology: B.S.: Environmental Biology and Zoology
- 2007-2012 Michigan State University, East Lansing, MI, College of Agriculture and Natural Resources, Department of Fisheries and Wildlife: Ph.D.
Advisor: Joan B. Rose
Dissertation title: Measuring microbial water quality responses to land and climate using fecal indicator bacteria and molecular source tracking in rivers and near-shore surface waters of Michigan.

CHRONOLOGY OF EMPLOYMENT

- 2005- 2010 Professional Assistant: State of Michigan, Department of Environmental Quality. Water Bureau, P.O. Box 30273, Lansing, Michigan 48909
- 2007- 2012 Research Assistant: Michigan State University, Department of Fisheries and Wildlife. 480 Wilson Road, East Lansing, MI 48824
- 2012- 2013 Post-doctoral Research Associate: University of North Carolina at Chapel Hill, Institute of Marine Sciences. 3431 Arendell Street, Morehead City, NC 28557
- 2013-2015 Post-doctoral Research Associate: The University of Arizona, College of Public Health. 1295 N. Martin, Tucson, AZ 85724
- 2015-2016 Assistant Professor – Career Track: The University of Arizona, College of Public Health. 1295 N. Martin, Tucson, AZ 85724
- 2018-2022 Visiting scientist: Southern California Coastal Water Research Project. 3535 Harbor Blvd., Suite 110, Costa Mesa, CA 92626
- 2016-2023 Assistant Professor – Tenure Track: The University of Arizona, College of Public Health. 1295 N. Martin, Tucson, AZ 85724
- 2017-Present Co-Director – Environment, Exposure Science, and Risk Assessment Center (ESRAC)
- 2020-Present Director – Rural Health Profession Program, College of Public Health

2023-Present Associate Professor with Tenure: The University of Arizona, College of Public Health. 1295 N. Martin, Tucson, AZ 85724

HONORS AND AWARDS

2010 International travel award (Michigan State University)
2012 Travel grants (Montana Rural Drinking Water)
2014 University of Arizona Open Access Publishing Award
2021 Excellence in Teaching award –Zuckerman College of Public Health

SERVICE/OUTREACH

Local/State/National Outreach

2016-2018 Water Resources Research Center annual meeting **student poster judge**.
2018-2019 University of North Carolina Water Microbiology meeting. **Advisory board**
2019 TenWest. Breaking down scientific silos: Using one health to address the world's wicked problems. **Scientific panel member**
2014-present Park-Euclid/7th Street & Arizona Avenue Water Quality Assurance Revolving Fund Site Community Advisory Board. Arizona Department of Environmental Quality. **Committee Chair** (2014-2020)
2016-2020 CONSERVE (COordinating Nontraditional Sustainable watER use in Variable climatEs), A Center of Excellence at the Nexus of Sustainable Water Reuse, Food, and Health. **Extension Advisory Committee member**
2018-present Arizona Health Education Association (AHEC) Scholar program. **Faculty mentor and lead program mentor**
2020-2021 MK Reactors. **Scientific advisor**
2021-2022 Goldasich, Vick & Fulk Attorneys at Law. **Expert witness**

National/International

Manuscript Reviewer

Water Science and Technology: 2012, 2017
North Pacific Research Board: 2013
Encyclopedia of Agricultural, Food, and Biological Engineering: 2013
Journal of Great Lakes Research: 2012, 2013, 2014, 2015, 2016, 2017
Environmental Science and Technology: 2012, 2013, 2015, 2016, 2017
Journal of Water and Health: 2012, 2016, 2018
Environmental Monitoring and Assessment: 2012, 2016
International Journal of Environmental Research and Public Health: 2015, 2016, 2017
Current Environmental Engineering: 2016
Critical Reviews in Environmental Science and Technology: 2016
US Environmental Protection Agency – manuscript technical reviewer: 2017
Journal of Environmental Management: 2018
Water Research: 2018

Proposal Reviewer

National Science Foundation: 2014
USDA Critical Agricultural Research and Extension (CARE) grant program: 2017
Rose Fellowship: 2017

Maryland Sea Grant Graduate Research Fellowship: 2018
 Research, Discovery, and Innovation (RDI), Faculty seed grants, University of Arizona: 2017, 2018, 2021
 Southern California Coastal Water Research Program annual grant program: 2021, 2022

Departmental Committees

Peer review committee: 2016
 Sabbatical review committee (2 associate professors): 2016
 Graduate student admissions review: 2016-present

College Committees

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| 2009-2012 | Michigan State University, Department of Fisheries and Wildlife seminar committee |
| 2014 | Mel and Enid Zuckerman College of Public Health Graduate Research Poster Forum Judge |
| 2016 | Faculty mentoring development |
| 2016-2017 | Mel and Enid Zuckerman College of Public Health Research Advisory Council. Member |
| 2016-2019 | Mel and Enid Zuckerman College of Public Health Poster Forum committee. Faculty advisor |
| 2016-2020 | Mel and Enid Zuckerman College of Public Health Faculty Mentoring evaluation committee. Member |
| 2019-Present | Mel and Enid Zuckerman College of Public Health Faculty search committee. Member |
| 2019-2020 | Mel and Enid Zuckerman College of Public Health communications director search committee. Member |

University Committees and Services

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| 2014-Present | University of Arizona - Environment, Exposure Science, and Risk Assessment Center, Co-Director |
| 2017-2019 | University of Arizona – Research Development Services Faculty seed grant program, reviewer |
| 2020-Present | University of Arizona - Rural Health Professions Program, Director |
| 2020-Present | University of Arizona - Undergraduate Research Opportunities Consortium faculty mentor: Maximizing Access to Research Careers (MARC) Program, mentor |
| 2020-Present | University of Arizona - Undergraduate Research Opportunities Consortium faculty mentor: Access, Wellness, and Relational Determinants of Student Success (AWARDSS), mentor |
| 2022-Present | University of Arizona – Arizona Institute for Resilient Environments and Societies advisory board, member |

Professional Memberships

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| 2008-2010 | International Association of Great Lakes Research, member |
| 2004-2011 | Blue Lake-Cold Springs Lake Civic Association, Michigan, member |
| 2007-2012 | Michigan Branch of the American Society for Microbiology, member |
| 2008-2012 | Grand Traverse Watershed Beach Monitoring Stakeholders group |

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| 2008-2012 | Michigan State University Fisheries and Wildlife Graduate Student Organization, seminar leader |
| 2007-2017 | American Society for Microbiology, member |
| 2009-Present | International Water Association, member |
| 2009-Present | Health Related Water Microbiology, member |
| 2007-Present | Great Lakes Beach Association, member |
| 2013-Present | University of Arizona Food Safety Consortium, member |
| 2014-Present | University of Arizona One Health Consortium, member |
| 2016-Present | American Association for the Advancement of Science, member |
| 2016-Present | University of Arizona Center for Rural Health, member |
| 2017-Present | University of Arizona Public Safety Institute, member |
| 2019-2020 | American Water Works Association, member |
| 2020-Present | American Gastroenterological Association, member |
| 2021-Present | University of Arizona's BIO5 institute, member |
| 2021-Present | Mountain West Regional Chapter of the Society of Toxicology, member |

Symposia participation

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| 2007 | Center for Advancing Microbial Risk Assessment Institute, East Lansing, Michigan, US |
| 2008 | Beach Health Steering Committee-USGS, Portage, Indiana, USA |
| 2009 | Multiple Stressors in Saginaw Bay: Navigating the Issues, Ann Arbor, Michigan, USA |
| 2010 | International Joint Commission experts meeting, Milwaukee, Wisconsin, USA |
| 2013 | Quantitative Microbial Risk Assessment Innovation Institute, Sao Paulo, Brazil |
| 2016 | Cochise County public health emergency preparedness infectious disease workshop, Sierra Vista, Arizona, USA |
| 2016 | Water Resources Research Center annual meeting, Tucson, Arizona, USA |
| 2017 | Water Resources Research Center annual meeting, Tucson, Arizona, USA |

Symposia speaker

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| 2008 | Saginaw Bay Coastal Initiative Speaker Series |
| 2009 | Huron County Water Quality Forum |
| 2009 | Ottawa County Water Quality Forum |
| 2012 | Saginaw Bay Watershed Conference |
| 2018-2022 | Quantitative Microbial Risk Assessment annual workshop |
| 2018 | National Organization of State Offices of Rural Health, Little Rock, Arkansas, USA |

PUBLICATIONS/CREATIVE ACTIVITY

Chapters in Scholarly Books and Monographs

Verhoughstraete, M.P., J. Sexton, and K. Reynolds. (2015). Recreational Water Exposure. In. J. Bartrum. (Ed.). *Handbook for Water and Health*. EarthScan.

Refereed Journal Articles (accepted) - Citations: 293; h-index: 8

1. ***Verhougstraete, M.P.**, M.N. Byappanahalli, R.L. Whitman, and J.B. Rose. (2010). *Cladophora* in the Great Lakes: Impacts on beach water quality and human health. *Water Sci. and Tech.* 62: 68-76.
<https://iwaponline.com/wst/article-abstract/62/1/68/14669/Cladophora-in-the-Great-Lakes-impacts-on-beach?redirectedFrom=fulltext>
Altmetric Attention Score: NA Citations: 47
2. ***Verhougstraete, M.P.** And J. Rose. (2014). Microbial investigations of water, sediment, and algae mats the mixed use watershed of Saginaw Bay, Michigan. *Journal of Great Lakes Research* 40: 75-82.
<http://www.sciencedirect.com/science/article/pii/S0380133013001718>
Altmetric Attention Score: NA Citations: 10
3. **Verhougstraete, M.P.**, S. Brothers, W. Litaker, and R. Noble. (2015). Lessons learned from implementing a wet laboratory molecular training workshop for beach water quality monitoring. *PLOS ONE*. DOI: 10.1371/journal.pone.0121214
<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0121214>
Altmetric Attention Score: 1 Citations: 3
4. Lothrop, N., S. Wilkinson, **M.P. Verhougstraete**, A. Sugeng, M. Loh, W. Klimecki, and P. Beamer (2015). Home Water Treatment Habits and Effectiveness in a Rural Arizona Community. *Water. Multidisciplinary Digital Publishing Institute*. DOI:10.3390/w7031217
<http://www.mdpi.com/2073-4441/7/3/1217/html>
Altmetric Attention Score: 3 Citations: 29
5. ***Verhougstraete, M.**, S. Martin, A. Kendall, D. Hyndman, and J. Rose. (2015). Microbial responses to land, physical, chemical, environmental, and hydrological factors. *PNAS* 112(33): 10419-10424.
<http://www.pnas.org/content/112/33/10419.full>
Altmetric Attention Score: 117 Citations: 85
6. Lamparelli, C.C., K. Pogreba-Brown, **M. Verhougstraete**, M.I.Z. Sato, T. Wade, and J.N.S. Eisenberg. (2015). Are fecal indicator bacteria appropriate measures of recreational water risks in the tropics: a cohort study of beach goers in Brazil? *Water Research* 87: 59-68.
<http://www.sciencedirect.com/science/article/pii/S004313541530213X>
Altmetric Attention Score: NA Citations: 48
7. **Verhougstraete, M.** and K. Reynolds. (2016). Use of a portable air disinfecting system to remove seeded coliphage in hospital rooms. *American Journal of Infection Control* 44 (6) 714-715.
<https://www.sciencedirect.com/science/article/pii/S0196655316000031?via%3Dihub>
Altmetric Attention Score: NA Citations: 7

8. Lothrop N, Bright KR, Sexton J, Pearce-Walker J, Reynolds KA, **Verhougstraete M.P.** (2018). Optimal strategies for monitoring irrigation water quality. *Agriculture Water Management*. 2018;199:86-92. doi:10.1016/j.agwat.2017.12.018
<https://www.sciencedirect.com/science/article/pii/S0378377417304109>
 Altmetric Attention Score: NA Citations: 26
9. Jean Pierre Nshimiyimana, J.P., S.L. Martin, M. Flood, **M.P. Verhougstraete**, D.W. Hyndman, J.B. Rose. (2018). Regional Variations of Bovine and Porcine Fecal Pollution as a Function of Landscape, Nutrient, and Hydrological Factors. *Journal of Environmental Quality*. doi:10.2134/jeq2017.11.0438
<https://acsess.onlinelibrary.wiley.com/doi/full/10.2134/jeq2017.11.0438>
 Altmetric Attention Score: 1 Citations: 6
10. Canales, R.A., A.M. Wilson, J.I. Pearce-Walker, **M.P. Verhougstraete**, K.A. Reynolds. (2018). Methods for Handling Left-Censored Data in Quantitative Microbial Risk Assessment. *Appl. Environ. Microbiol., AEM*. 01203-18.
<https://aem.asm.org/content/84/20/e01203-18.long>
 Altmetric Attention Score: NA Citations: 28
11. Alshammari, M., Reynolds, K.A., **M.P. Verhougstraete**, M.K O'Rourke. (2018). Comparison of Perceived and Observed Hand Hygiene Compliance in Healthcare Workers in MERS-CoV Endemic Regions. *Healthcare* 6, 122.
<https://www.mdpi.com/2227-9032/6/4/122>
 Altmetric Attention Score: 15 Citations: 28
12. Munoz-Gutierrez, K., R.A. Canales, K.A. Reynolds, **M.P. Verhougstraete**. (2019). Floor and environmental contamination during glove disposal. *Journal of Hospital Infections*. 101 (3), 347-353.
<https://www.sciencedirect.com/science/article/pii/S0195670118305528>
 Altmetric Attention Score: NA Citations: 9
13. **Verhougstraete, M.P.**, J.K. Gerald, C.P. Gerba, K.A. Reynolds. (2019). Cost-benefit of point-of-use devices for lead reduction. *Environ. Res.* 171, 260–265.
<https://www.sciencedirect.com/science/article/pii/S0013935119300180>
 Altmetric Attention Score: NA Citations: 5
14. Wilson, A.M., R.A. Canales, **M.P. Verhougstraete**, K.A. Reynolds. (2019). Validation of a Stochastic Discrete Event Model Predicting Virus Concentration on Nurse Hands. *Risk Analysis*. 39(8), 1812-1824.
<https://onlinelibrary.wiley.com/doi/full/10.1111/risa.13281>
 Altmetric Attention Score: 4 Citations: 11
15. V. Madera-Garcia, M. Weir, P. Beamer, J. Werner, **M.P. Verhougstraete**. (2019). *Legionella pneumophila* as a Health Hazard to Miners: A Pilot Study of Water Quality and QMRA. *MDPI Water* 11(8), 1528.
<https://www.mdpi.com/2073-4441/11/8/1528>
 Altmetric Attention Score: 2 Citations: 1

16. **Verhougstraete, M.P.**, K. Progreba-Brown, C.C. Lamparelli, M.I.Z. Sato, T. Wade, and J.N.S. Eisenberg (2019). A critical analysis of recreational water guidelines developed from temperate climate data and applied to the tropics. *Water Research* 159, 135-144.
<https://www.sciencedirect.com/science/article/pii/S0043135419310681>
 Altmetric Attention Score: NA Citations: 7

17. Pearce-Walker, J. D.J. Troup, R. Ives, L.A. Ikner, J.B. Rose, M.A. Kennedy, **M.P. Verhougstraete** (2020). Investigation of the effects of an ultraviolet germicidal irradiation system on concentrations of aerosolized surrogates for common veterinary pathogens. *American Journal of Veterinarian Research* 81, 506-513.
<https://avmajournals.avma.org/doi/full/10.2460/ajvr.81.6.506>
 Altmetric Attention Score: 2 Citations: 2

18. Pearce-Walker, J., K. Bright, R. Canales, A. Wilson, **M.P. Verhougstraete** (2020). Managing leafy green safety from adenoviruses and enteroviruses in irrigation water. *Agriculture Water Management* 240, 106272.
<https://www.sciencedirect.com/science/article/pii/S0378377419319705>
 Altmetric Attention Score: NA Citations: 4

19. Wilson, A., **M.P. Verhougstraete**, P. Beamer, MF. King, K. Reynolds, and C. Gerba (2020). Frequency of hand-to-head, -mouth, -eyes, and -nose contacts for adults and children during eating and non-eating macro-activities. *Journal of Exposure Science and Environmental Epidemiology*, 1-11.
<https://www.nature.com/articles/s41370-020-0249-8>
 Altmetric Attention Score: 10 Citations: 11

20. Wilson, A., **M. Verhougstraete**, C. Donskey, and K. Reynolds (2020). An agent-based modeling approach to estimate pathogen exposure risks from wheelchairs. *American Journal of Infection Control*. 49 (2), 206-214
<https://www.sciencedirect.com/science/article/abs/pii/S0196655320305861>
 Altmetric Attention Score: NA Citations: 0

21. **Verhougstraete, M.P.**, K. Reynolds, J. Pearce-Walker, C. Gerba (2020). Cost benefits of point-of-use devices to reduce waterborne diseases. *Journal of Water and Health*. 18(6) 968-982.
<https://iwaponline.com/jwh/article-abstract/doi/10.2166/wh.2020.111/77653/Cost-benefit-analysis-of-point-of-use-devices-for>
 Altmetric Attention Score: NA Citations: 2

22. Wilson, A., C. Donskey, **M. Verhougstraete**, and K. Reynolds (2020). Estimating the Contribution of a Contaminated Wheelchair to Pathogen Spread With an Agent-Based Model. *Infection Control & Hospital Epidemiology* 41 (S1), s474-s474.
<https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/estimating-the-contribution-of-a-contaminated-wheelchair-to-pathogen-spread-with-an-agentbased-model/B6936DEBAAEC35139FE75241521BE47E>
 Altmetric Attention Score: NA Citations: 0

23. Hamilton, K., A. Kuppravalli, A. Heida, S. Joshi, C. Haas, **M. Verhougstraete**, D. Gerrity (2021). Legionnaires' disease in dental offices: quantifying aerosol risks to dental workers and patients. *Journal of Occupational & Environmental Hygiene* 18 (8), 378-393.
<https://www.tandfonline.com/doi/abs/10.1080/15459624.2021.1939878?journalCode=ueh20>
 Altmetric Attention Score: 11 Citations: 1

24. Hermanski, A., J. McClelland, J. Pearce-Walker, J. Ruiz, and **M. Verhougstraete** (2022). Blue space exposure effects on mental health. *Place and Health*.
 DOI: 10.1080/00207411.2021.1910173
<https://www.tandfonline.com/doi/full/10.1080/00207411.2021.1910173>
 Altmetric Attention Score: 2 Citations: 1

25. Reynolds, K., M. Verhougstraete, K. Mena, S. Sattar, E. Scott, and C. Gerba (2022). Quantifying pathogen infection risks from household laundry practices. *Journal of Applied Microbiology* 132 (2), 1435-1448.
<https://sfamjournals.onlinelibrary.wiley.com/doi/10.1111/jam.15273>
 Altmetric Attention Score: 4 Citations: 1

26. Lee, S., A. Wilson, E. Cooksey, D. Boccelli, **M. Verhougstraete** (2022). Exploring vulnerable nodes, impactful viral intrusion sites, and viral infection risk reductions offered by chlorine boosters in municipal drinking water networks. *Journal of Water Resources Planning and Management*

27. Wilson, A., **M.P. Verhougstraete**, S.L. Martin, A.D. Kendall, J.B. Rose, M.L. Bell, D.W. Hyndman (2022). Explaining *Bacteroides thetaiotaomicron* and *Escherichia coli* concentrations in Michigan watersheds with adaptive LASSO linear regression models. *Science of the Total Environment*.

28. Cooksey, E., **M. Verhougstraete**, S. Sneed, C. Joseph, J. Blohem, M. Paukgana, L. Joshweseoma, G. Sehongva, S. Hadeed, R. Harris, M. O'Rourke (2023). Drinking water and health assessment in a Northern Arizona community. *Science of the Total Environment*

29. Diner, R., A. Zimmer-Faust, E. Cooksey, S. Allard, S. Koder, E. Kunselman Y. Garodia, **M. Verhougstraete**, A. Allen, J. Griffith, and J. Gilbert. (2023). Host and Water Microbiota Are Differentially Linked to Potential Human Pathogen Accumulation in Oysters. *Applied and Environmental Microbiology*. 89.7: e00318-23

30. Gandhi, P., **Verhougstraete, M.**, von Hippel, F., Rodriguez, S. (2023). Microbiological assessment of drinking water around Lake Atitlan, Guatemala. *Population Medicine*, 5(Supplement), A969. <https://doi.org/10.18332/popmed/164451>

31. Jordan, R., J. Schmidt, **M. Verhougstraete**, F. von Hippel (Accepted). Formerly used defense sites on Unalaska Island, Alaska: Mapping a legacy of environmental pollution. *Integrated Environmental Assessment and Management*.

32. **Verhougstraete, M.P.**, E. Cooksey, J. Pearce-Walker, A.M. Wilson, M. Lewis, A. Yoder, M.H. Weir. (Accepted). Surface sampling before and after terminal cleaning in hospital

rooms previously occupied by patients with confirmed HAI associated pathogen infections. PLOS One.

33. Kahn, D., Chen, W., Linden, Y., Corbeil, K. A., Lowry, S., Higham, C. A., Mendez, K. S., Burch, P., DiFondi, T., **Verhougstraete, M.**, de Roos, A. J., Haas, C. N., Gerba, C., & Hamilton, K. A. (2024). A microbial risk assessor's guide to Valley Fever (*Coccidioides* spp.): Case study and review of risk factors. *Science of The Total Environment*, 917, 170141. <https://doi.org/10.1016/J.SCITOTENV.2024.170141>

* Indicates manuscript substantially based on work done as a graduate student

Industry Trade Articles

Verhougstraete, M. (2016). On Tap: Water Issues: Global Concerns and Global Issues. *Water Conditioning & Purification International*. Trade journal article peer reviewed by a technical advisory committee.

<http://www.wcponline.com/2016/01/15/on-tap-water-issues-global-concerns-and-global-issues/>

Reynolds, KA, **Verhougstraete, M.** (2018). On Tap: Developing predicative models to quantify future POU needs and benefits. *Water Conditioning & Purification International*. Trade journal article peer reviewed by a technical advisory committee:

<http://www.wcponline.com/2018/10/15/developing-predictive-models-quantify-future-pou-needs-benefits/>

Pearce-Walker, J., E. Kurgat, A. Norman, D. Quintanar, **M. Verhougstraete** (2020). A novel approach to quantify climate change effects on drinking water quality. *The Kachina news – Arizona Water Association*. Q3, 35-39.

<https://www.kelmanonline.com/httpdocs/files/AZWater/kachinanews3-2020/index.html#>

Technical Reports

1. Michigan Department of Environmental Quality. 2005. Acute toxicity assessment of Houghton City landfill seep 1 sample. #MI/DEQ/WB-05/108
2. Singh, S., **M.P. Verhougstraete**, and J.B. Rose. 2007. Investigation of water quality and sediment quality associated with the Muskegon County Wastewater Management System.
3. Rose, J.B., **M.P. Verhougstraete**, S. Singh, and T. Shibata. 2007. Study of Silver Lake Water Quality.
4. **M.P. Verhougstraete** and J.B. Rose. 2008. A new toolbox for testing Michigan waters.
5. **M.P. Verhougstraete**, S. Srinivasan, R. Ives, and J.B. Rose. 2008. Preliminary report for Pigeon River fish kill.
6. **M.P. Verhougstraete** and J.B. Rose. 2008. Investigation of water quality and sources associated with the Buck Creek Watershed.

7. **M.P. Verhoughstraete** and J.B. Rose. 2008. Barberry Drain at West Lake Preliminary Water Quality Testing. For West Lake Improvement Association.
8. **M.P. Verhoughstraete**, S. Singh, and J.B. Rose. 2008. Investigation of water quality in the Coldwater River Watershed.
9. **M.P. Verhoughstraete**, T. Shibata, and J.B. Rose. 2009. Background levels of viable bacteria and fungi in the indoor air and on surfaces in Ingham Regional Medical Center “before and after” the UVGI-HVAC installation. For Ingham Regional Medical Center.
10. **M.P. Verhoughstraete**, A. Aslan-Yilmaz, and J.B. Rose. 2009. Upper Peninsula Groundwater Sampling Menominee County, Michigan. For the Public Health Delta-Menominee Counties.
11. **M.P. Verhoughstraete**, E.A. Dreelin, and J.B. Rose. 2009. Investigation of Water Quality and Source Tracking at Whites Beach Arenac County, Michigan. For the Central Michigan District Health Department and the Michigan Department of Environmental Quality.
12. **M.P. Verhoughstraete**, E.A. Dreelin, and J.B. Rose. 2009. Investigation of Water Quality and Source Tracking at Bay City State Recreation Area Beach Bay County, Michigan. For the Bay County Health Department and the Michigan Department of Environmental Quality.
13. **M.P. Verhoughstraete**, E.A. Dreelin, and J.B. Rose. 2009. Investigation of Water Quality and Source Tracking at Port Crescent State Park day use Beach Huron County, Michigan. For the Huron County Health Department and the Michigan Department of Environmental Quality.
14. **M.P. Verhoughstraete**, E.A. Dreelin, and J.B. Rose. 2009. Investigation of Water Quality and Source Tracking at Caseville County Park Beach Huron County, Michigan. For the Huron County Health Department and the Michigan Department of Environmental Quality.
15. **M.P. Verhoughstraete** and J.B. Rose. 2009. Investigation of Water Quality and Source Tracking in Gull Lake Watershed, Michigan. For the Four Township Water Resources.
16. **M.P. Verhoughstraete** and J.B. Rose. 2010. Investigation of Water Quality and Source Tracking at Grand Traverse Bay and Mitchell Creek Grand Traverse County, Michigan. For The Watershed Center Grand Traverse Bay and Sarah U’Ren.
17. **M.P. Verhoughstraete** and K. Reynolds. 2014. Hospital Field Study of T1 Air Disinfectant Recirculator Efficacy Against Viral Tracers. For Aerobiotix, Inc. and Brent Lloyd and David Kirschman.
18. Lothrop, N., K. Bright, J. Sexton, K. Reynolds, **M.P. Verhoughstraete**. 2016. Optimal strategies for monitoring irrigation water quality and the development of guidelines for the irrigation of food crops. For Center for Produce Safety.

19. **Verhougstraete, M.P.**, K., Reynolds, A. Tamimi, and C. Gerba. 2016. Cost benefit of point-of-use devices in reduction of health risks from drinking water. For Water Quality Research Foundation.
20. Pogreba-Brown, K., S. Barnes, K. Bright, and **M. Verhougstraete**. 2017 Produce safety risk assessment data gaps. For Arizona Department of Agriculture.
21. Pearce-Walker, J., **M. Verhougstraete**, and K. Bright. 2017. Enteric viruses as new indicators of human and cattle fecal contamination of irrigation waters. For The Center for Produce Safety.
22. Pearce-Walker, J., D. Troup, **M. Verhougstraete**. 2018. Ultraviolet Air Disinfection of Zoonotic and Enzoitic Pathogens. For PetAirapy, LLC.
23. J. Pearce-Walker, **M. Verhougstraete**, A. Nematollahi, M. Pountain, and P. Beamer. 2019. Environmental Toxic Substance Assessment: Per- and Polyfluoroalkyl Substances (PFAS) in Pima County Water. For Pima County, Arizona.
24. J. Pearce-Walker, J., A. Yoder, M.H. Weir, and **M. Verhougstraete**. 2019. Combined Surface Sampling and Quantitative Microbial Risk Assessment Modeling To Optimize Surface Cleaning For Targeted HAI Reduction. For Center for Disease Control and Prevention.
25. E. Cooksey, E. Rutin, M. White, L. Picton, O-S. Kuku, D. Joshi, S. Field, S. Sneed, T. Hopkins, V. Olsen, M. Sammons, A. Zimmer-Faust, **M. Verhougstraete**. 2021. Comparison of four E. coli culture-based methods in irrigation water. For Neogen Corporation.
26. E. Dotherow, T. Simmons, M. Verhougstraete. 2022. Safe Drinking Water Act Compliance with or without POU/POE Devices. For Water Quality Research Foundation (WQRF).
27. T. Simmons, K. Reynolds, M. Verhougstraete. 2023. Aquifer Water Quality Standards (AWQS) assessment for arsenic, uranium, DBPs, uranium, and pathogens. For Arizona Department of Environmental Quality and Matrix New World Engineering.

MEDIA

Nature, Mixed reviews for US Clean Water Act, 14 November 2012: <http://www.nature.com/news/mixed-reviews-for-us-clean-water-act-1.11809>

North Carolina Science Now- UNC-TV, Rapid Water Test, September 2013: <http://science.uncvtv.org/content/rapid-water-test>

Michigan State University, Septic tanks aren't keeping poo out of rivers and lakes, 3 August 2015: <http://msutoday.msu.edu/news/2015/septic-tanks-arent-keeping-poo-out-of-rivers-and-lakes/>

Water Online, Septic Tanks Aren't Keeping Poo Out Of Rivers And Lakes, 3 August 2015: <http://www.wateronline.com/doc/septic-tanks-aren-tkeeping-poo-rivers-lakes-0001>

Science Daily, Septic tanks aren't keeping feces out of rivers, lakes, 3 August 2015: <http://www.sciencedaily.com/releases/2015/08/150803154850.htm>

Laboratory Equipment, Septic Tanks Don't Help Rivers, Lakes Stay Clean, 4 August 2015: <http://www.laboratoryequipment.com/news/2015/08/septic-tanks-dont-help-rivers-lakes-stay-clean>

Infection Control Today, Septic Tanks Aren't Keeping Human Sewage Out of Rivers and Lakes, 5 August 2015: <http://www.infectioncontroltoday.com/news/2015/08/septic-tanks-arent-keeping-human-sewage-out-of-rivers-and-lakes.aspx>

University of Arizona, UA Public Health Researchers Work to Keep U.S. Food Crops Safe, 26 August 2015: <http://uahs.arizona.edu/news/ua-public-health-researchers-work-keep-us-food-crops-safe>

KNST Tucson, University of Arizona researchers help keep food safe, 09 September 2015

KJZZ Tucson, University of Arizona Study Will Help Produce Farmers Reduce *E. coli*, 10 September 2015: <http://science.kjzz.org/content/189765/university-arizona-study-will-help-produce-farmers-reduce-e-coli>

Great Lakes Echo, Septic tanks flush water quality down the tubes, 24 September 2015: <http://greatlakesecho.org/2015/09/24/septic-tanks-are-flushing-water-quality-down-the-tubes/>

Use of portable air disinfecting system to remove seeded coliphage in hospital rooms, 13 April 2016, Association of Schools & Programs of Public Health.

Irrigation Water – Keeping it Clean. 17 February 2017. Vegetable Growers News

UA researcher focuses on preventing health-care-associated infections. 16 October 2019. News Medical Life Sciences: <https://www.news-medical.net/news/20191016/UA-researcher-focuses-on-preventing-health-care-associated-infections.aspx>

Preventing health-care-associated infections focus of UA health sciences researcher. 16 October 2019. AAAS EurekaAlert: https://www.eurekalert.org/pub_releases/2019-10/uoah-phi101619.php

WQA Radio podcast #138 Cost benefit study. October 2019: <https://soundcloud.com/user-141188699/wqa-radio-138-cost-benefit-study>

Digging deeper – PPE debris. June 2020. KVOA Tucson News: <https://kvoa.com/news/2020/06/01/digging-deeper-ppe-debris/>

7 Daily Habits That Help Fight Off Viruses. September 17, 2020. AARP media: <https://www.aarp.org/health/healthy-living/info-2020/daily-virus-prevention-tips.html>

CONFERENCE PRESENTATIONS

Colloquia Invited

1. **Verhougstraete, M.P.** and R.T. Noble. Ambient water quality in the Southeastern US: Trends and advancements in water quality management. November 12, 2012. 33rd Annual Society of Environmental Toxicology and Chemistry meeting, Long Beach, California, USA.
2. Martin, S., E. Luszcz, **M. Verhougstraete**, A. Kendall, and D. Hyndman. Estimating statewide septic system locations and linkages to pathogens. March 21, 2013. Michigan Environmental Health Association annual education conference, Rochester, Michigan, USA.
3. **M. Verhougstraete**, S. Martin, A. Kendall, D. Hyndman, and J. Rose. Microbial tipping points of *Escherichia coli* and human specific bacteria in Great Lakes river systems. May 19, 2014. Joint Aquatic Sciences Meeting, Portland, Oregon, USA.
4. **M. Verhougstraete**, K. Bright, K. Reynolds, C. Rock. Optimal strategies for monitoring irrigation water quality and the development of guidelines for the irrigation of food crops. June 23, 2015. Center for Produce Safety annual meeting, Atlanta, Georgia, USA.
5. **M. Verhougstraete**, S. Martin, A. Kendall, D. Hyndman, and J. Rose. Linking fecal bacteria in rivers to landscape, geochemical, and hydrologic factors and sources at the basin scale. November 30, 2015. Michigan Department of Environmental Quality. Lansing, Michigan, USA.
6. **M. Verhougstraete**, S. Martin, A. Kendall, D. Hyndman, and J. Rose. Linking fecal bacteria in rivers to landscape, geochemical, and hydrologic factors and sources at the basin scale. February 4, 2016. Arizona Department of Environmental Quality. Maricopa, Arizona, USA
7. **M. Verhougstraete**. Optimal strategies for monitoring irrigation water quality and the development of guidelines for the irrigation of food crops. June 30, 2016. Center For Produce Safety annual meeting, Seattle, Washington, USA.
8. **M. Verhougstraete**. Practical tips for effective water sampling. December 6, 2016. Washington State Fruit Tree Association annual meeting. Wenatchee, Washington, USA.
9. **M. Verhougstraete**. Irrigation water knowledge gaps. December 13, 2017. Center for Produce Safety, Yuma, Arizona, USA
10. **M. Verhougstraete**. Environmental Health and Justice. June 27, 2018. National Organization of State Office of Rural Health. Little Rock, Arkansas, USA

11. **M. Verhougstraete.** Environmental Health and Justice in Arizona. July 26, 2018. Arizona State Office of Rural Health. Flagstaff, Arizona, USA
12. **M. Verhougstraete.** Costs associated with POU's and thinking outside the box. May 24, 2018. University of North Carolina Water Microbiology. Chapel Hill, North Carolina, USA.
13. **M. Verhougstraete.** Agriculture water concerns in the southwest United States. December 4, 2018. University of California Irvine agriculture extensions – Arid desert agriculture summit. Imperial, California, USA.
14. **M. Verhougstraete.** There's we in water. 22 April 2019. Georgia Southern Environmental Health Graduate seminar. Statesboro, Georgia, USA.
15. **M. Verhougstraete,** J. Pearce-Walker, A. Nematollahi, M. Pountain, K. Tham, and P. Beamer. PFAS report update. 24 April 2019. Pima Board of Health. Tucson, Arizona, USA.
16. **M. Verhougstraete,** J. Gerald, K. Reynolds, and C. Gerba. Cost-Benefit of Point of Use Devices for Lead Reductions. 12 June 2019. American Water Works Association ACE 2019. Denver, Colorado, USA.
17. Wilson, M-F King, M. Weir, **M. Verhougstraete,** P. Beamer, K. Reynolds. COVID-19 Infection Risk: Are there differences between eating and non-eating behaviors? 21 September 2020. International Society of Exposure Science. Virtual
18. E. Cooksey, A. Zimmer-Faust, R. Diner, J. Steel, J. Griffith, and **M. Verhougstraete.** Prevalence of potentially pathogenic *V. Parahaemolyticus* and *V. Vulnificus* in oysters harvested in Newport Bay, California. 19 February 2020. AGU/ Association for the Sciences of Limnology and Oceanography – Ocean Sciences Meeting. San Diego, California, USA
19. E. Cooksey, A. Zimmer-Faust, R. Diner, J. Steel, J. Griffith, B. Froelich, D. Blackwood, R. Noble, and **M. Verhougstraete.** Prevalence and persistence of potentially pathogenic *V. parahaemolyticus* and *V. vulnificus* in oysters harvested in Newport Bay, California. October 7 2020. Pacific Coast Shellfish Growers Association – National Shellfisheries Association Annual Meeting. Virtual
20. S. Field and **M. Verhougstraete.** Gastrointestinal Epithelial Cell Response to Inorganic Arsenic Consumption. 9 November 2020. Annual Biomedical Research Conference for Minority Students (ABRCMS) 2020. Virtual
21. **M. Verhougstraete** and M. Weir. Establishing Exposure Thresholds for Breathing Zones. 20 May 2021. CrisiScience Collaborative seminar series. Virtual
22. **M. Verhougstraete,** E. Dotherow, A. Zimmer-Faust, A. Aslan. Case Studies of Point-of-Use or Point-of-Entry (POU/POE) for Safe Drinking Water Act Compliance. August 30-

September 2, 2021. 18th Annual EPA Drinking Water Workshop: Small Systems Challenges and Solutions. Virtual

23. S. Field, J. Chakrabarti, Y. Zavros, **M. Verhoughstraete**. Implications of *Helicobacter pylori* Infectivity Following Exposures to Arsenic. 9 November 2021. Annual Biomedical Research Conference for Minority Students (ABRCMS) 2020. Virtual *outstanding poster award
24. **M. Verhoughstraete**. Re-aerosolization of viruses from indoor surfaces. 30 August 2022. Fomite and virus workshop with the CDC. Virtual
25. **M. Verhoughstraete** and F. von Hippel. Combined methods for relating human health with contaminant mixtures in water. 5 May 2023. One Health Symposium. Tucson, Arizona, USA.
26. **M. Verhoughstraete**., G. Elizondo-Craig, T. Simmons, and C. Balser. Session lead - Health Justice Gaps in Rural Communities: Two Case Studies in the Southwest. Arizona Rural Health Conference. 7 June 2023. Flagstaff, Arizona, USA.
27. **M. Verhoughstraete**. Perspectives and Solutions – A Public Health View. Arizona Water Deep Dive event. 27 June 2023. Washington DC., USA
28. **M. Verhoughstraete**. Safeguarding Health from Climate Related Stress in Arid Lands. Climate Change and Health symposium. 16 October 2023. Washington DC, USA
29. M. Verhoughstraete. Risk Factors of for Gastric Cancer Among Underserved Communities in Southern Arizona. University of Arizona Environmental Sciences Seminar. 23 October 2023. Tucson, Arizona, USA.
30. **M. Verhoughstraete**, T. Simmons, and E. Dotherow. Case Studies of SDWA Compliance. Water Quality Research Foundation webinar. 7 December 2023. Virtual
31. **M. Verhoughstraete**. Water and Health Resiliency. Arizona Institute for Resilience. 7 February 2024. Tucson, Arizona, USA.

Colloquia Submitted

1. Shibata T., **M. Verhoughstraete**, and J. Rose. Background Levels of Viable Bacteria and Fungi in the Indoor Air and on Surfaces in a Hospital before a UVGI-HVAC Installation. *October 13, 2007*. Michigan Branch of the American Society for Microbiology fall meeting. Traverse City, Michigan, USA
2. Srinivasan, S., **M.P. Verhoughstraete**, and J.B. Rose. *S. Bacteroides*, a new alternative indicator. *April 12, 2008*. Michigan Branch of the American Society for Microbiology spring Meeting. Mt. Pleasant, Michigan, USA
3. McNinch, R.M, **Verhoughstraete, M.P.**, and J.B. Rose. Using Fecal Indicator, Source Tracking, and GIS Tools to Assess Fecal Contamination in Michigan's Waters. *May 20*,

2008. International Association of Great Lakes Research 51st Annual Conference on Great Lakes Research. Peterborough, Ontario, Canada

4. **Verhougstraete, M.P.** and J.B. Rose. Saginaw Bay and *Escherichia Coli*. *September 5, 2008*. Saginaw Bay Coastal Initiative Speaker Series. Bay City, Michigan, USA
5. **Verhougstraete, M.P.** and J.B. Rose. Using a toolbox approach to investigate Cladophora, muck, sediment, and water around Saginaw Bay. *September 6, 2008*. Great Lakes Beach Association Annual meeting. Portage, Indiana, USA
6. **Verhougstraete, M.P.** and J.B. Rose. Water Quality and Pollution Characterization of Saginaw Bay. Michigan. *February 13, 2009*. Michigan State University Department of Fisheries and Wildlife Graduate Student Symposium. East Lansing, Michigan, USA
7. **Verhougstraete, M.P.** and J.B. Rose. Water Quality of Saginaw Bay. *March 12, 2009*. Huron County Water Quality Forum. Port Austin, Michigan, USA
8. **Verhougstraete, M.**, S. Martin, A. Kendall, D. Hyndman, and J. Rose. A Biological Survey: Understanding Water Quality Using a Process Based Approach. *September 19, 2011*. 16th International Symposium on Health-Related Water Microbiology-International Water Association. Rotorua, New Zealand
9. **Verhougstraete, M.P.** and J.B. Rose. Water Quality and Fecal Contamination of Saginaw Bay, Michigan. *March 19, 2009*. Michigan Environmental Health Association. Traverse City, MI, USA
10. **Verhougstraete, M.P.** and J.B. Rose. Recreational water quality assessment of Saginaw Bay beaches using fecal indicator bacteria and source tracking methods on samples from shallow and deep waters, sediment, and muck. *May 19, 2009*. International Association of Great Lakes Research 52nd Annual Conference on Great Lakes Research. Toledo, Ohio, USA
11. **Verhougstraete, M.P.** and J.B. Rose. Using Fecal Indicator Bacteria And Source Tracking Markers During Spatial And Temporal Sampling Of Sediments, Swash Zone, Swimming Water, And Muck To Assess Saginaw Bay, Michigan, United States. *June 1, 2009*. 15th International Symposium on Health-Related Water Microbiology-International Water Association. Naxos, Greece
12. **Verhougstraete, M.P.** and J.B. Rose. The Muck and Human Health. *July 1, 2009*. Michigan Farm Bureau Regional Policy Development Meeting. Frankenmuth, Michigan, USA
13. **Verhougstraete, M.P.**, J.B. Rose, and S. U'Ren. Healthy Beaches Program Grand Traverse Bay Region. *September 30, 2009*. 9th Annual Great Lakes Beach Association Joint Conference. Milwaukee, Wisconsin, USA

14. J.B. Rose and **M.P. Verhougstraete**. Source Tracking in the Saginaw Bay and Great Lakes Application. *October 26, 2009*. Fourth Annual Ottawa County Water Quality Forum. Grand Rapids, Michigan, USA
15. **Verhougstraete, M.P.** and J.B. Rose. Microbial and Molecular Survey of Grand Traverse Bay Watershed. *April 6, 2010*. Michigan Branch of the American Society for Microbiology spring meeting. Kalamazoo, Michigan, USA
16. Aslan, A. and **M. Verhougstraete**. Climate Change and Water Quality. *April 26, 2010*. Bioeconomy and Global Climate Change, Climate Change Vulnerabilities and Opportunities: Michigan and Beyond Symposium. East Lansing, Michigan, USA.
17. **Verhougstraete, M.P.** and J.B. Rose. A Water Quality Comparison between Grand Traverse Bay and Saginaw Bay, Michigan, United States. *September 20, 2010*. International Water Association World Water Congress and Exhibition. Montreal, Quebec, Canada
18. **Verhougstraete, M.P.** and J.B. Rose. A Water Quality Comparison between Grand Traverse Bay and Saginaw Bay, Michigan, United States. *October 9, 2010*. Michigan Branch of the American Society for Microbiology fall meeting. East Lansing, Michigan, USA
19. **Verhougstraete, M.P.** and J.B. Rose. A Water Quality Comparison between Grand Traverse Bay and Saginaw Bay, Michigan, United States. *October 20, 2010*. 10th Annual Great Lakes Beach Association Conference. Presque Isle, Pennsylvania, USA
20. **Verhougstraete, M.P.**, Y. Huang, and J.B. Rose. Public Health Tipping Points for Water Quality. *April, 19, 2011*. NOAA and EPA Tipping Point Project meeting. Chicago, IL, USA
21. **Verhougstraete, M.P.** Public Health Issues of the 21st Century Workshop. *February 22, 2012*. 33rd Annual Montana Rural Water Systems, Great Falls, Montana, USA
22. **Verhougstraete, M.P.** and J.B. Rose. Saginaw Bay ‘muck’: Current understanding, research, and protective measures. *March 16, 2012*. 2012. Saginaw Bay Watershed Conference, Bay City, MI, USA
23. **Verhougstraete, M.P.** and J.B. Rose. Microbial responses to land, physical, chemical, environmental, and hydrological factors. *October 18, 2012*. 12th Annual Great Lakes Beach Association Conference. Mackinac Island, MI, USA
24. Froelich, D., R. Gonzalez, D. Blackwood, M. Greene, R. Guajardo, S. Brothers, **M. Verhougstraete**, R. Luettich, H. Paerl, J. Oliver, and R. Noble. Pathogenic Vibrio species in the Neuse River Estuary. *October 25, 2012*. Research Coordination Networks symposium, Oregon, USA.
25. B.A. Froelich, R.A. Gonzalez, A.D. Blackwood, R.P. Boyles, A.H. Snedecker, **M.P.**

Verhougstraete, and R.T. Noble. Multi-year changes in *Vibrio* populations in the Neuse River Estuary of North Carolina, USA. *April 1, 2014*. Vibrio 2014 Conference, Edinburgh, Scotland.

26. D. Blackwood, S. Brothers, **M. Verhougstraete**, W. Litaker, and R. Noble. Training the Next Generation of Water Quality Professionals: Lessons Learned from Workshops on Rapid, qPCR-based Methods. *May 5, 2014*. 2014 Water Microbiology Conference, Raleigh, North Carolina, USA.
27. K. Lauer, **M. Verhougstraete**, D. Blackwood, and R. Noble. Quantitative analysis of fecal contamination in stormwater conveyance systems in Wrightsville Beach, NC. *May 5, 2014*. 2014 Water Microbiology Conference, Raleigh, North Carolina, USA.
28. **M. Verhougstraete**, K. Pogreba-Brown, C.C. Lamparelli, and J.N.S. Eisenberg. A prospective cohort study of risks associated with beaches in Brazil. *May 5, 2014*. 2014 Water Microbiology Conference, Raleigh, North Carolina, USA.
29. J. Viswasam, **M. Verhougstraete**, R. Canales, A. Kendall, J. Rose. Investigating the links between precipitation, water quality, and GI illness. *August 12, 2014*. The University of Arizona Minority Health Disparities Program, Tucson, Arizona, USA.
30. J. Eisenberg, C. Lamparelli, M. Zanoli-Sato, K. Pogreba Brown, **M. Verhougstraete**, and T. Wade. Recreational water risks in the tropics: A prospective cohort study of risks associated with beaches in Brazil. *October 13, 2014*. Water and Health Conference, Raleigh, North Carolina, USA.
31. **M. Verhougstraete**, N. Lothrop, J. Pearce-Walker, J. Sexton, K. Reynolds, K. Bright. Optimal strategies for monitoring irrigation water quality and the development of guidelines for the irrigation of food crops. *May 18, 2016*. University of North Carolina Water Microbiology conference, Chapel Hill, North Carolina, USA.
32. D. Troup, K. Reynolds, **M. Verhougstraete**. Bioaerosol Reduction with a Passive Air Treatment System in a Controlled Chamber. *April 2017*, Mel and Enid Zuckerman College of Public Health Research Poster forum. Tucson, Arizona, USA
33. **M. Verhougstraete**, M. Weir, J. Miller. International Risk Consortium side event. *May 2017*. University of North Carolina Water Microbiology conference, Chapel Hill, North Carolina, USA.
34. **M. Verhougstraete**. Suitability of *Escherichia coli* as an Indicator of Human Pathogens in Irrigation Water. *June 2018*, International Food Safety Conference.
35. Jean Pierre Nshimiyimana, J.P., S.L. Martin, M. Flood, **M.P. Verhougstraete**, D.W. Hyndman, J.B. Rose. Regional Variations of Bovine and Porcine Fecal Pollution as a Function of Landscape, Nutrient, and Hydrological Factors. *June 2018*. International Association of Great Lakes Research, Toronto, CA

36. V. Madera-Garcia, P. Beamer, J. Werner, **M. Verhougstraete**. Legionella is a Miner issue. May 20, 2018. University of North Carolina Water Microbiology conference, Chapel Hill, North Carolina, USA.
37. **M. Verhougstraete**, K. Reynolds, C. Gerba. Cost benefits of point-of-use devices to reduce waterborne diseases. May 19, 2018. University of North Carolina Water Microbiology conference, Chapel Hill, North Carolina, USA.
38. **M. Verhougstraete**. Suitability of *Escherichia coli* as an Indicator of Human Pathogens in Irrigation Water. May 18, 2018. University of North Carolina Water Microbiology conference, Chapel Hill, North Carolina, USA
39. Pearce-Walker, J., **M. Verhougstraete**, J. Sexton, R. Canales, A. Wilson, C. Gerba, and K. Bright. Assessment of viral pathogens, their indicators, and the applicability of quantitative microbial risk assessment in irrigation waters. October 9, 2018. International Society for Food and Environmental Virology. Phoenix, Arizona, USA.
40. M. White, J. Pearce-Walker, A. Zimmer-Faust, **M. Verhougstraete**. Assessing the Efficacy of Antimicrobial Ear Drops for Microbial Reductions. 16 April 2019. University of Arizona Public Health Poster Forum. Tucson, Arizona, USA.
41. **M. Verhougstraete** and A. Zimmer-Faust. Young professionals workshop. 14 May 2019. University of North Carolina Water Microbiology conference, Chapel Hill, North Carolina, USA.
42. J. Pearce-Walker, A. Wilson, R. Canales, K. Bright, C. Gerba, and **Marc P. Verhougstraete***. Adenovirus infection risk from irrigated leafy green consumption. 15 May 2019. University of North Carolina Water Microbiology conference, Chapel Hill, North Carolina, USA.
43. R. Wagoner and **M. Verhougstraete**. Addressing Water Quality Alongside Community Health Workers in a Farm Worker Community. 18 August 2019. International Society Of Exposure Science and International Society Of Indoor Air Quality And Climate 2019. Kaunas, Lithuania.
44. Cooksey, E., A. Zimmer-Faust, J. Griffith, and **M. Verhougstraete**. Prevalence of pathogenic *V. parahaemolyticus* and *V. vulnificus* in oysters harvested in Newport Bay California. February 17, 2020, American Geophysical Union (AGU), the Association for the Sciences of Limnology and Oceanography (ASLO), and The Oceanography Society (TOS) - Ocean Sciences Meeting 2020. San Diego, California, USA.
45. Wilson, A., C. Donskey, **M. Verhougstraete**, and K. Reynolds. Estimating the contribution of a contaminated wheelchair to pathogen spread with an agent-based model. March 27, 2020. The Society For Healthcare Epidemiology Of America Decennial 6th International Conference on Healthcare Associated Infections. Atlanta, Georgia, USA.

46. Rutin, E., **M. Verhougstraete**, L. Ikner. Trapping and inactivation of viruses associated with treated HVAC filter material. 1 April 2022. University of Arizona's Public Health Poster Forum annual meeting. Tucson, Arizona, USA.
47. J. Mirabito and **M. Verhougstraete**. A review of urinary bladder cancer arsenic exposure risk factors in Arizona Counties. 1 April 2022. University of Arizona's Public Health Poster Forum annual meeting. Tucson, Arizona, USA.
48. Preet Gandhi, P., **M. Verhougstraete**, F. von Hippel, S. Rodriguez. Microbiological assessment of drinking water around Lake Atitlan, Guatemala. 17th World Congress on Public Health. Rome, Italy.
49. T. Islam, Y. Chen, M. Almalki, **M. Verhougstraete**, Y.J. Son. Hierarchical Agent-based Models to Quantify Methicillin-Resistant *Staphylococcus Aureus* (MRSA) Transmission Dynamics and Evaluate Intervention Policies in University Settings. Institute of Industrial and Systems Engineers. 21-24 May 2022. Seattle, Washington, USA.
50. M. Verhougstraete. Measuring health outcomes from *H. pylori* and arsenic mixture exposures using human gastric organoids. Health Related Water Microbiology. 6 June 2023. Darwin, Australia.
51. D. Kahn, W.Chen, Y. Linden, K. Corbeil, S. Lowry, C. Higham, K. Mendez, P. Burch, T. DiFondi, **M. Verhougstraete**, A. De Roos, C. Haas, C. Gerba, K. Hamilton. Review of Fungal Pathogens and Quantitative Microbial Risk Assessment of Inhalation Exposure to *Coccidioides* Spp. Association of Environmental Engineering and Science Professors. 22 June 2023. Boston, Massachusetts, USA.
52. D. Seong, **M. Verhougstraete**, S. Hoque, J. Mirabito, K. Ijaz, C. Gerba. User-friendly model for predicting optimal dose of aerosolized disinfectants against indoor pathogens. Association of Environmental Engineering and Science Professors. 22 June 2023. Boston, Massachusetts, USA.
53. T. Simmons, E. Dotherow. **M. Verhougstraete**. Safe Drinking Water Act Compliance with or without POU/POE Devices. UNC Water and Health conference. 23 October 2023. Chapel Hill, North Carolina, USA.
54. T. Stump, D. Demaree, H. Brosky, G. Rao, A. Zhou, **M. Verhougstraete**, and J. Eisenberg. Human Health Risk of Cohabiting with Livestock: A Case Study. Society for Risk Analysis. 10 December 2023. Washington DC, USA.

Courses instructed

Instructor. CPH 599. Independent Study – Jeannie Pearce-Walker. Summer 2016

Co-Instructor. CPH 597D. Rural Health Service Learning Institute. Summer 2016. 15 enrolled students

Instructor. CPH 491. Preceptorship – Gabriel Manicellis

Instructor. CPH 900. Research independent Study – Siyi Lei. Fall 2016

Instructor. CPH 375. Introduction to Environmental and Occupational Health. Fall 2016. 130 enrolled students.

Co-Instructor. CPH 696. Environmental and Occupational Health seminar. Fall 2016.

Instructor. CPH 597D. Rural Health Service Learning Institute. Summer 2017. 15 enrolled students

Co-Instructor. CPH 696. Environmental and Occupational Health seminar. Spring 2017.

Instructor. CPH 696. Environmental and Occupational Health seminar. Fall 2017.

Instructor. CPH 375. Introduction to Environmental and Occupational Health. Fall 2017. 160 enrolled students.

Instructor. CPH 375. Introduction to Environmental and Occupational Health. Fall 2018. 120 enrolled students.

Instructor. CPH 375. Introduction to Environmental and Occupational Health. Spring 2019. 92 enrolled students.

Instructor. CPH 696. Environmental and Occupational Health seminar. Spring 2018.

Instructor. CPH 597D. Rural Health Service Learning Institute. Summer 2019. 5 enrolled students.

Co-Instructor. CPH 696. Environmental and Occupational Health seminar. Fall 2019. 25 enrolled students.

Instructor. EHS 375. Introduction to Environmental and Occupational Health. Spring 2020. 110 enrolled students.

Instructor. CPH 696. Environmental and Occupational Health seminar. Spring 2020. 13 enrolled students.

Instructor. CPH 597D. Rural Health Service Learning Institute. Spring 2020. 10 enrolled students.

Instructor. EHS 375. Introduction to Environmental and Occupational Health. Spring 2021. 96 enrolled students

Instructor. CPH 597D. Rural Health Service Learning Institute. Spring 2021. 12 enrolled students

Developer and instructor. EHS 195. One Health In Action. Spring 2021. 2 enrolled students

Instructor. EHS 375. Introduction to Environmental and Occupational Health. Spring 2022.
70 enrolled students

Instructor. CPH 597D. Rural Health Service Learning Institute. Spring 2022. 6 enrolled
students

Instructor. EHS 100. One Health In Action. Spring 2022. 28 enrolled students

Instructor. EHS 375. Introduction to Environmental and Occupational Health. Spring 2023.
65 enrolled students

Instructor. CPH 597D. Rural Health Service Learning Institute. Spring 2023. 6 enrolled
students

Instructor. EHS 100. One Health In Action. Spring 2023. 30 enrolled students

Instructor. EHS 375. Introduction to Environmental and Occupational Health. Spring 2024.
57 enrolled students

Instructor. CPH 597D. Rural Health Service Learning Institute. Spring 2024. 4 enrolled
students

Instructor. EHS 100. One Health In Action. Spring 2024. 80 enrolled students

Guest Lectures

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|-----------|---|
| 2014 | CPH 459 (Principles of Infectious Disease Epidemiology) |
| 2014 | CPH 609 (Evaluating Public Health Literature) |
| 2014 | CPH 585 (Fundamentals of Industrial and Environmental Health) |
| 2014 | CPH 603 (Applied Analysis of Environmental Data) |
| 2015 | EPID 479 (Infectious Disease Epidemiology) |
| 2015 | CPH 375 (Introduction to Environmental and Occupational Health) |
| 2016 | EPID 479 (Infectious Disease Epidemiology) |
| 2016 | CPH 575 (Environmental and Occupational Health) |
| 2016 | EPID 660 (Infectious Disease Epidemiology) |
| 2016 | CPH 400 (Contemporary Community Health Problems) |
| 2017 | PH 700D (Seminar in Public Health: Environmental Health, San Diego State University) |
| 2017 | EHS 696R (Environmental and Occupational Health seminar) |
| 2017-2018 | CPH 575 (Environmental and Occupational Health) |
| 2018 | HPS 559 (Special topics in public health) |
| 2020 | CPH 585 (Fundamentals of Industrial and Environmental Health) |
| 2020 | EHS 575 (Environmental and Occupational Health) |

Student advising (Primary research or program advisor)

The University of Arizona

Post-doctoral

2022-2023 Dahae Seong

2022-2023 Edward Dotherow

PhD (current employer)

2014-2015 Steven Hadeed (Battelle)
2016-2017 Valerie Madera-Garcia (University of Arizona)
2017-2018 Modhi Alshammari (University of Arizona)
2017-2018 Daniel Troup (Stanford Children's Hospital)
2016-2019 Elkana Kurgat (Veterans Affairs)
2018-2021 Emily Cooksey (Air Force Research Laboratory)
2021-present Munthir Almoslem
2023-present Priscilla Valenzuela

Masters of Science (MS) (current employer)

2015 Kyle Brown (University of Arizona)
2015-2016 Modhi Alshammari (University of Arizona)
2016-2017 Amanda Wilson (University of Arizona)
2016-2017 Daniel Troup (Stanford Children's Hospital)
2016-2018 Kimberley Munoz (Gilead Sciences)
2017-present Jordan Siena (Arizona Department of Occupational Safety and Health)
2020-2021 Mandie White
2021-2022 Mansour Almalki
2022-present Gabriela Elizondo-Craig
2022-present Taylor Simmonds

Masters of Public Health (MPH)

2016-2017 Dametreea Carr
2016-2017 Siyi Lei
2017-2018 Claudia Diaz-Combs
2017-2018 David Contreras
2017-2018 Fernanda Garavito
2017-2018 Erik Ornelas
2018-2020 Kylie Boyd
2018-2020 Sarah Gruzo (US Environmental Protection Agency)
2018-2020 Andrew Hermanski
2018-2020 Tun Nef
2020-2022 Emma Rutin
2021-2023 Mary Spitzer
2021-2023 Lane Starret

Independent studies/Interns

2016 Jennie Pearce-Walker
2020 Emma Rutin
2020 Emmanuel Gonzalez
2020 Steven Hadeed
2020 Ari Robles

Undergraduate students

2014 Jonathan Viswasam

| | |
|--------------|--|
| 2017 | Aaron Bai (BLASIER program) |
| 2018 | Payton De La Cruz |
| 2018-2019 | Mandie White |
| 2019 | Kelsey Camps (Honors College thesis) |
| 2018-2019 | Arielle De La Cruz |
| 2020-2021 | Sam Sneed (KEYS program) |
| 2020-2021 | Sydney Field (MARC program) |
| 2020-2021 | Theresa Hopkins |
| 2020-2021 | Bekkah Lerman |
| 2021-2022 | Joe Mirabito (Honors College thesis) |
| 2021-2022 | Emily Forysiak (Honors College thesis) |
| 2023-present | Brooke McKalip |
| 2023-2024 | Nicole Duran |
| 2023 | Eric Morris (BYU) |

The University of North Carolina-Chapel Hill

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|------|----------------------------|
| 2012 | Sara Posey (Undergraduate) |
| 2013 | Kellen Lauer (Masters) |

Michigan State University

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| 2008-2009 | Benjamin Schmidt (Masters) |
| 2008-2010 | Mustafa Mazher (Masters) |
| 2008, 2009, 2011 | Christian Beato Melendez (Undergraduate) |

Seminar Invited

K. Pogreba-Brown and **M. Verhoughstraete**. Large cohort study of illness associated with beach exposure in Brazil. *February 6, 2014*. The University of Arizona, College of Public Health, Epidemiological Seminar Series, Tucson, Arizona, USA.

M. Verhoughstraete. Microbial water quality in the Great Lakes. *September 3, 2014*. The University of Arizona, College of Public Health, Environmental Health Sciences seminar series, Tucson, Arizona, USA.

M. Verhoughstraete. Students for Sustainability Environmental Health Panel. November 1, 2016. The University of Arizona, Students for Sustainability, Tucson, Arizona, USA.

M. Verhoughstraete. Current state of microbial research for produce safety. October 17, 2016. The University of Arizona, School of Animal Comparative Biomedical Sciences (ACBS), Tucson, Arizona, USA.

M. Verhoughstraete. Environmental Health Panel. November 21, 2016. The University of Arizona, Students for Sustainability, Tucson, Arizona, USA

M. Verhoughstraete. Science Café: Health risks of flooding and natural disasters. December 4, 2017. The University of Arizona, Southwest Environmental Health Sciences Center, Tucson, Arizona, USA.

Symposia organization

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| 2007 | Center for Water Sciences: Waterborne Pathogens Workshop Series |
| 2009 | Center for Water Sciences: Stormy Weather and Stormwater Impacts workshop series |
| 2008, 2009, 2011 | CAMRA (Center for Advancing Microbial Risk Assessment) Summer Institute |
| 2011-2012 | NOAA Sea Grant climate change workshop |
| 2012 | Montana Rural Water Systems annual conference: Our water; Our health |
| November 2013 | Molecular Training Facility Rapid Methods Assessment |
| March 2013 | Molecular Training Facility Rapid Methods Assessment |
| 2016-2018 | HITS (Healthcare Infection Transmission Systems). Founding member and Steering committee |
| 2018 | Arizona State Office of Rural Health. Planning committee |
| 2018-present | Quantitative Microbial Risk Assessment Interdisciplinary Innovative Institute |
| 2016-2022 | Public Health Risk Assessment Consortium. Founding member |
| 2018-2019 | University of North Carolina Water Microbiology meeting. Advisory board |

AWARDED GRANTS

Total value while at University of Arizona: \$4,162,777

Total value as PI/Co-PI while at University of Arizona: \$2,794,702

Federal

1. 2010-2012 Co-Principal Investigator. Land use change and agricultural lands indicators and tipping points. Funded by: NOAA and EPA. Total cost: \$119,748; 50% effort
2. 2012-2013 Co-Principal Investigator. Quantifying the impacts of projected climate changes on the Grand Traverse Bay region: An adaptive management framework. Funded by: NOAA Michigan Sea Grant. Total cost: \$106,613; 50% effort
3. 2008-2014 Contributing investigator. Collaborative Research: Linkage of Bacterial Pathogens to Human infectious Disease in an Estuary Subjected to Extreme Climatic Events. Funded by: National Science Foundation. Total cost: \$1,541,139; 50% effort
4. 2015-2016 Co-Principal Investigator. Responder Safety and Health. Funded by: Center for Disease Control and Prevention through the Arizona Department of Health Services under the Hospital Preparedness Program and Public Health Emergency Preparedness Cooperative Agreements. Total cost: \$240,000; 40% effort
5. 2017-2018 Principal investigator. A Water Quality Assessment in a Farm Worker Community. Funded by: NIOSH (2U54OH007550) - Western Center for Agricultural Health and Safety. Total cost: \$30,000; 1% FTE
6. 2018-2019 Co-Primary Investigator. Quantitative Microbial Risk Assessment: A Modeling Method to Optimize Healthcare Associated Infection Reduction Nationally. Funded by: Center for Disease Control and Prevention (CDC). Total cost: \$510,000; 20% FTE

7. 2018-2020 Investigator. Proyecto Agua Limpia. Funded by: Environmental Protection Agency - Environmental Justice Collaborative Problem-Solving Cooperative Agreement Program. Total cost: \$120,000. Student research support
8. 2020-2021 Principal investigator. Rural Health Professions Program renewal. Funded by: US Health Resources and Services Administration through Arizona Area Health Education Centers. Total cost: \$110,000; 10% effort
9. 2021-2022 Principal investigator. Rural Health Professions Program renewal. Funded by: US Health Resources and Services Administration through Arizona Area Health Education Centers. Total cost: \$168,678; 10% effort
10. 2022-2023 Principal investigator. Rural Health Professions Program renewal. Funded by: US Health Resources and Services Administration through Arizona Area Health Education Centers. Total cost: \$162,792; 10% effort
11. 2023-2024 Principal investigator. Rural Health Professions Program renewal. Funded by: US Health Resources and Services Administration through Arizona Area Health Education Centers. Total cost: \$144,727; 20% effort

State

1. 2008-2009 Lead investigator. Screening level source tracking of *E. coli* and phosphorus in the Saginaw Bay watershed. Funded by: Michigan Department of Environmental Quality. Total cost: \$23,913; 20% effort
2. 2009 Lead investigator. Beach monitoring in Grand Traverse Bay. Funded by: Michigan Department of Environmental Quality through the BEACH Act. Total cost: \$5,000; 10% effort
3. 2009-2011 Co-Principal Investigator/Lead investigator. Assessment of water quality and health risk in Grand Traverse Bay Watershed. Funded by: Michigan Department of Environmental Quality. Total cost: \$31,955; 50% effort
4. 2012-2013 Co-investigator. Training Workshops at Molecular Training Facility in Eastern North Carolina. Funded by: North Carolina Biotechnology Center, Presidential Initiative Award. Total cost: \$40,000; 50% effort
5. 2014-2015 Co-Principal Investigator. Spatial/Temporal Sampling of Irrigation Water. Funded by: Arizona Department of Agriculture – Specialty Crop Program. Total cost: \$60,000; 5% effort
6. 2015-2016 Co-Principal Investigator. Enteric viruses as new indicators of human and cattle fecal contamination of irrigation waters. Funded by: Center for Produce Safety, University of California Davis. Total cost: \$221,340; 5% effort
7. 2015-2016 Principal investigator. Optimal strategies for monitoring irrigation water quality and the development of guidelines for the irrigation of food crops. Funded by: Center for Produce Safety, University of California Davis. Total cost: \$117,201; 5% effort

8. 2015 Co-Principal Investigator. Equipment Grant Award. Funded by: University of Arizona, Water, Environment, and Energy Solutions at The University of Arizona. Total cost: \$16,407; 1% effort
9. 2015-2016 Principal investigator. Determining Data Gaps in Risk Assessment for use in Produce Safety. Funded by: Arizona Department of Agriculture. Total cost: \$50,000; 15% effort
10. 2016 Principal Investigator. HydroSphere enhancement for improved water quality monitoring. Funded by: Water, Environment, Energy Sustainability (WEES). Total cost: \$6,000; 0% effort
11. 2015-2017 Principal investigator. Determining Data Gaps in Risk Assessment for use in Produce Safety. Funded by: Arizona Department of Agriculture. Total cost: \$50,000; 13% effort
12. 2016-2017 Principal Investigator. Identifying new surrogates for irrigation water. Funded by: Arizona Department of Agriculture. Total cost: \$65,441; 10% effort
13. 2016-2017 Co-Principal Investigator. Pathogen Transport to Produce via Irrigation. Funded by: Arizona Department of Agriculture. Total cost: \$60,000. 10% effort
14. 2016-2017 Principal Investigator. A novel approach to quantify climate changes effects on drinking water quality. Funded by: University of Arizona. Total cost: \$8,955; 5% effort
15. 2018-2019 Co-Investigator. Investigation into PFAS occurrence in water and health outcomes. Funded by: Pima County, AZ. Total cost: \$30,000; 5% FTE
16. 2019-2020 Co-Principal investigator. A mathematical modeling approach to address drinking water quality disparities between rural and urban communities in Arizona. Funded by: Arizona Area Health Education Centers. Total cost: \$4,762; 1% FTE
17. 2020 Co-Investigator. Ensuring water, food safety, and public health using the compact Illumina iSeq100 System. Submitted to RII Equipment Enhancement Fund FY20. Total cost: \$28,000
18. 2020-2021 Co-Investigator. COVID-19 reopening strategy for older adults on UArizona campus. Funded by: University of Arizona RII Reentry Fund FY20. Total cost: \$50,000
19. 2020-2021 Co-Investigator. Harvesting water in the desert: risks and mitigation of pathogen invasion in soils in water-saving retention and reuse applications. Funded by: University of Arizona's 2020 Research Advancement Grants - Accelerate for Success. Total cost: \$50,000
20. 2020-2021 Principal Investigator. Implications of mixed exposures to arsenic and *H. pylori*. Funded by: University of Arizona's 2020 Faculty Seed Grants. Total cost: \$15,000

21. 2021 Principal Investigator. Equipment grant. Funded by: TRIF/WEES. Total cost: \$100,000; 0% effort
22. 2021-2022 Principal Investigator. Pandemic Resiliency in our built environments. Funded by: University of Arizona's Arizona Institute for Resilient Environments and Societies (AIRES). Total cost: \$100,000. 10% effort
23. 2022 Principal Investigator. Equipment grant. Funded by: TRIF/WEES. Total cost: \$20,000; 0% effort
24. 2022-2023 Co-Principal Investigator. Convergent Research to Advance National Environmental Equity & Safety (CRANEES). Total cost: \$200,000; 0% effort – 100% post-doctoral effort supported
25. 2022-2023 Investigator. High Fidelity Patient Simulator CO₂ Studies in CAMO-Treated Masks. Funded by: Arizona Commerce Authority. Total cost: 499,909; 10% effort
26. 2022-2023 Investigator. Human Subjects Cognitive Studies & CO₂ Mask Accumulation in "CAMO"-treated Masks. Funded by: Arizona Commerce Authority. Total cost: 499,020; 5% effort
27. 2023-2024 Principal Investigator. Assessing risk factors of gastric cancers in souther Arizona Hispanic communities. Funded by: Southwest Environmental Health Sciences Center through NIEHS award P30 ES006694. Total cost: \$60,000; 0% effort
28. 2021-2024 Principal Investigator. Healthcare Navigator Program. Funded by: Arizona Alliance for Community Health Centers (AACHC). Total cost: \$721,750; 10% effort

Industry

1. 2014 Co-Principal Investigator. Hospital Field Study of T1 Air Disinfectant Recirculator Efficacy Against Viral Tracers. Funded by: Aerobiotix Inc. Total cost: \$23,427; 20% effort
2. 2016 Co-Principal Investigator. Controlled Laboratory Chamber Study of Antimicrobial Efficacy over Long-term Use. Funded by: Knowles Foundation. Total cost: \$33,911; 25% effort
3. 2016 Co-Principal Investigator. Impact of Safeguard on fecal bacterial load on humans and household fomites. Funded by: Procter & Gamble Co. Total cost: \$80,000; 20% effort
4. 2016 Co-Principal Investigator. Cost benefits of point of use devices in reduction of health risks from drinking water. Funded by: Water Quality Association (WQA). Total cost: \$60,000; 15% effort
5. 2017-2018 Principal investigator. Controlled Laboratory Chamber Study of Antimicrobial Efficacy. Funded by: PetAirapy LLC. Total cost: \$33,000; 10% effort

6. 2017-2019 Co-Investigator. Household POU Filters: Tools for Long-Term, Large Volume Monitoring of Tap Water Quality and Human Health Risks. Funded by: Water Quality Research Foundation. Total cost: \$50,000; 3% effort
7. 2019-2020 Principal investigator. Method comparison for enumeration of *E. coli* in agriculture water systems. Funded by: Neogen Corporation. Total cost: \$30,000, 2% effort
8. 2020-2021 Principal investigator. CAMO testing on air filter materials. Funded by: Steel Jupiter. Total cost: \$178,347; 10% effort
9. 2022 Lead investigator. Aerosolized disinfectant assessment using computational fluid dynamics. Funded by: Reckitt Benckiser. Total cost: \$51,3300; 10% effort

Private Foundation

1. 2007-2008 Lead investigator. Investigation of water quality in the Coldwater River Watershed. Funded by: Coldwater River Watershed Council. Total cost: \$3840; 5% effort
2. 2008 Lead investigator. West Lake Improvement Association Barberry Drain at West Lake preliminary water quality testing. Funded by: West Lake Improvement Association. Total cost: \$1000; 5% effort
3. 2008 Lead investigator. Investigation of water quality and sources associated with the Buck Creek Watershed. Funded by: City of Kentwood, Michigan. Total cost: \$4860; 10% effort
4. 2009 Lead investigator. Improving Grand Traverse Bay water quality through Healthy Beaches campaign. Funded by: The Watershed Center Grand Traverse Bay. Total cost: \$15,600; 10% effort
5. 2009-2010 Lead investigator. Investigation of water quality and source tracking in Gull Lake watershed, Kalamazoo County, Michigan. Funded by: Four Township Water Resources Council. Total cost: \$3790; 10% effort
6. 2021-2022 Principal investigator. Safe Drinking Water Act Compliance with or without POU/POE devices. Funded by: WQRF. Total cost: \$50,000, 5% effort

LIST OF COLLABORATORS (LAST 5 YEARS)

Grants and Publications

Almalki, A., The University of Arizona
 Arora, M., The University of Arizona
 Ashbolt, N., University of Alberta
 Aslan, A., University of Georgia Southern
 Bartholic, J., Michigan State University
 Bartram, J., University of North Carolina
 Bassett, J., John Bassett Consulting
 Beamer, P.I., The University of Arizona
 Bell, M., The University of Arizona

Briggs, S., State of Michigan Department of Environmental Quality
 Bright, K., The University of Arizona
 Bruni, A.C., Environmental Company of Sao Paulo State
 Buizer, J., The University of Arizona
 Byappanahalli, M.N., United State Geological Survey, Lake
 Canales, R., The University of Arizona
 Carlo, L., The University of Arizona
 Casanova, L., Georgia State University
 Chen, Y., The University of Arizona
 Chen, Z., The University of Arizona
 Cooksey, E., The University of Arizona
 Davey, A., University of Delaware
 Donskey, C., Case Western Reserve University School of Medicine
 Dotherow, J., University of Georgia Southern
 Dreelin, E.A., Michigan State University
 Edwards, M., Virginia Polytechnic and State University
 Eisenberg, J.N.S., The University of Michigan
 Froelich, B.A., University of North Carolina – Chapel Hill
 Gerald, J., The University of Arizona
 Gerba, C., The University of Arizona
 Gerrity, D., University of Nevada – Las Vegas
 Granillo, B., The University of Arizona
 Haas, C., Drexel University
 Hamilton, K., Arizona State University
 Hanrahan, I., Washington State Tree Fruit Associate
 Heida, A., Arizona State University
 Hoffmann, M., Food and Drug Administration
 Huang, Y., Michigan State University
 Hyndman, D., Michigan State University
 Islam, T., The University of Arizona
 Ives, R., Michigan State University
 Ikner, L., The University of Arizona
 Joshi, S., Arizona State University
 Kahn-Rivadeneira, P., The University of Arizona
 Kendall, A., Michigan State University
 Kennedy, M., University of Tennessee
 King, M., University of Leeds
 Klimecki, W., The University of Arizona
 Kuppravalli, A., Arizona State University
 Lamparelli, C.C., Environmental Company of Sao Paulo State
 Larson, Marilyn A., University of Nebraska Medical Center Department
 Lauer, K., University of North Carolina – Chapel Hill
 Litaker, W., National Oceanic and Atmospheric Administration
 Loh, M.M., Institute of Occupational Medicine
 Lopez-Galvez, N., The University of Arizona
 Lothrop, N., The University of Arizona
 Lutz, E., The University of Arizona
 Martin, S., Michigan State University

McClelland, J., The University of Arizona
Medema, G., Delft University of Technology
Meschke, J., University of Washington
Miller, J., NSF International
Mraz, A., Ohio State University
Munoz, K., The University of Arizona
Noble, R., University of North Carolina – Chapel Hill
Ozevin, D., University of Illinois at Chicago
Pearce-Walker, J., The University of Arizona
Pogreba-Brown, K., The University of Arizona
Pruden, A., Virginia Polytechnic and State University
Quintanar, D., Tucson Water
Ravishankar, S., The University of Arizona
Reynolds, K., The University of Arizona
Rivadeneira, P., The University of Arizona
Rock, C., The University of Arizona
Rose, J., Michigan State University
Ruiz, J., The University of Arizona
Sato, M.I.Z., Environmental Company of Sao Paulo State
Sexton, J., The University of Arizona
Snedeker, A.H., University of North Carolina – Chapel Hill
Son, J.J., The University of Arizona
Sugeng, A., The University of Arizona
Wade, T., United States Environmental Protection Agency
Wagoner, R., The University of Arizona
Weber, M., The University of Arizona
Weir, M., The University of Ohio
Werner, J., The University of Arizona
Whitman, R.L., United State Geological Survey
Wilkinson, S.T., The University of Arizona
Wilson, A., The University of Arizona
Zimmer-Faust, A., Southern California Coastal Water Research Project