

Curriculum Vitae

Anna Gitter, M.S., Ph.D.

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Education

Ph.D., Water Management and Hydrological Science, Texas A&M University, College Station, TX
(December 2021)

Dissertation: “Evaluating microbial risks in private wells and recreational waters”

Advisor: Dr. Terry Gentry

M.S., Water Management and Hydrological Science, Texas A&M University, College Station, TX
(December 2016)

Thesis: “Application of quantitative microbial risk assessment and bacterial source tracking to assess the associated human health risks from multiple fecal sources during recreational exposure in the Leon River”

Advisor: Dr. R. Karthikeyan

B.S., Environmental Science (specialization: Environmental Health), University of Michigan,
Ann Arbor, MI (May 2013)

Research Experience

Assistant Professor (tenure-track), The University of Texas Health Science Center (UTHealth)-Houston School of Public Health, El Paso, TX, July 2023-current

Postdoctoral Research Fellow, The University of Texas Health Science Center (UTHealth)-Houston School of Public Health, El Paso, TX, Feb. 2022-June 2023

Research Specialist I, Texas Water Resources Institute, Texas A&M AgriLife Research, College Station, TX, Sept. 2020-January 2022

Research Assistant, Texas Water Resources Institute, Texas A&M AgriLife Research, College Station, TX, Sept. 2018-Aug. 2020

Graduate Research Assistant, Texas Water Resources Institute, Texas A&M AgriLife Research, College Station, TX, Sept. 2014-2016; Sept. 2017-Aug. 2018

Edge-of-Field Water Quality Intern, Whatcom Conservation District, Lynden, WA, Aug. 2017-Dec. 2017

Research Interests

- Environmental public health
- Quantitative risk assessment
- Water resources management
- Environmental sustainability

Peer-Reviewed Journal Articles

1. Hu, J., Blazier, J., **Gitter, A.**, Gregory, L., Gentry, T. How Sequencing Technology Shapes Our Understanding of River Water Microbiomes and Resistomes: A Comparative Study. *Applied and Environmental Microbiology*. 0:e01723-25. <https://doi.org/10.1128/aem.01723-25>
2. Corbeil, K.A.[±], **Gitter, A.****, Ruvalcaba, V., Powers, N.C., Hossain, M.S., Bonaiti, G., Flores, L., Pinchback, J., Jantrania, A., Gentry, T. Marker-and Microbiome-Based Microbial Source Tracking and Evaluation of Bather Health Risk from Fecal Contamination in Galveston, Texas. *Water*. 17(15):2310.
**Denotes corresponding author.
[±]Denotes student.
3. **Gitter, A.**, Ruvalcaba, V., Clark, K., Tran, T., Wu, F., Hanson, B.M., Deegan, J., Balliew, J., Boerwinkle, E., Maresso, A., Mena, K.D. (2025). Turning Analysis into Action: Opportunities and Challenges in Implementing Wastewater Science for Public Health Decision-Making. *Frontiers in Public Health*. 13: 1562659. <https://doi.org/10.3389/fpubh.2025.1562659>
4. Powers, N.C., **Gitter, A.**, Bleth, N., Johnson, A., Nicolay, J., Ayers, R., Turner, J.W. Microbial source tracking in a coastal residential canal system. *Science of the Total Environment*. 983(25): 179676. <https://doi.org/10.1016/j.scitotenv.2025.179676>.
5. Phan, T., Brozak, S., Pell, B., Ciupe, S.M., Ribeiro, R.M., **Gitter, A.**, Mena, K.D., Perelson, A.S., Kuang, Y., Wu, F. Post-recovery SARS-CoV-2 shedding shapes wastewater-based epidemiological inferences. *Communications Medicine*. 5(193). <https://doi.org/10.1038/s43856-025-00908-5>.
6. Chen, X., Balliew, J., Bauer, C.X., Deegan, J., **Gitter, A.**, Hanson, B.M., Maresso, A.W., Tisza, M.J., Troisi, C.L., Rios, J., Mena, K.D., Boerwinkle, E. (2024). Revealing patterns of SARS-CoV-2 variant and evolution using RBD amplicon sequencing of wastewater. *Journal of Infection*. 89(5):106284. <https://doi.org/10.1016/j.jinf.2024.106284>.
7. **Gitter, A.**, Mena, K.D., Mendez, K.S., Wu, F., & Gerba, C.P. (2024). Eye Infection Risks from *Pseudomonas aeruginosa* via hand soap and eye drops. *Applied and Environmental Microbiology*. 90(4), e02119-23. doi: 10.1128/aem.02119-23.
8. **Gitter, A.**, Boellstorff, D.E., Gholson, D. M., Pieper, K.J., Mena, K.D., Mendez, K.S. & Gentry, T.J. (2023). Texas well user stewardship practices three years after Hurricane Harvey. *Water*. 15(22), 3943. <https://doi.org/10.3390/w15223943>.
9. Oghuan, J., Chavarria, C., Vanderwal, S.C., **Gitter, A.**, Ojaruega, A.A., Monserrat, C., Bauer, C.X., Brown, E.L., Cregeen, S.J., Deegan, J., Hanson, B.M., Tisza, M., Ocaranza, H.I., Balliew, J., Maresso, A.W., Rios, J., Boerwinkle, E., Mena, K.D., Wu, F. (2023). Wastewater analysis of Mpox virus in a city with low prevalence of Mpox disease: an environmental surveillance study. *The Lancet Regional Health-Americas*. 28(100639). doi: 10.1016/j.lana.2023.100639.
10. **Gitter, A.**, Gidley, M., Mena, K.D., Ferguson, A., Sinigalliano, C., Bonacolta, A. & Solo-Gabriele, H. (2023). Integrating Microbial Source Tracking with Quantitative Microbial Risk Assessment to Evaluate Site Specific Risk Based Thresholds at Two South Florida Beaches. *Frontiers in Microbiology*. 14: 1210192. <https://doi.org/10.3389/fmicb.2023.1210192>.

11. **Gitter, A.**, Mena, K.D., Lisle, J.T. Informing ASR Treatment Practices in a Florida Aquifer through a Human Health Risk Approach. (2023). *International Journal of Environmental Research and Public Health*. 20(19): 6833. <https://doi.org/10.3390/ijerph20196833>.
12. Tisza, M., Javornik Creegen, S., Avadhanula, V., Zhang, P., Ayvaz, T., Feliz, K., Hoffman, K.L., Clark, J.R., Terwilliger, A., Ross, M.C., Cormier, J., Henke, D., Troisi, C., Wu, F., Rios, J., Deegan, J., Hansen, B., Balliew, J., **Gitter, A.**, Zhang, K., Li, R., Bauer, C.X., Mena, K.D., Piedra, P.A., Petrosino, J.F., Boerwinkle, E., Maresso, A. Comprehensive Wastewater Sequencing Reveals Community and Variant Dynamics of the Collective Human Virome. *Nature Communications*. 14(6878). <https://doi.org/10.1038/s41467-023-42064-1>.
13. Phan, T., Brozak, S., Pell, B., Oghuan, J., **Gitter, A.**, Hu, T., Ribeiro, R.M., Ke, R., Mena, K.D., Perelson, A.S., Kuang, Y., Wu, F. (2023). Making waves: Integrating wastewater surveillance with dynamic modeling to track and predict viral outbreaks. *Water Research*. 243: 120372.
14. **Gitter, A.**, Boellstorff, D.E., Mena, K. D., Gholson, D.M., Pieper, K.J., Chavarria, C.A., & Gentry, T.J. (2023). Quantitative microbial risk assessment for wells in flood-impacted areas. *Water*. 15(3):469. <https://doi.org/10.3390/w15030469>.
15. **Gitter, A.**, Bauer, C., Wu, F., Ramphul, R., Chavarria, C., Zhang, K., Petrosino, J., Mezzari, M., Gallegos, G., Terwilliger, A., Clark, J., Feliz, K., Avadhanula, V., Piedra, T., Weesner, K., Maresso, A. & Mena, K.D. (2023). Assessment of a SARS-CoV-2 wastewater monitoring program in El Paso, Texas from November 2020 to June 2022. *International Journal of Environmental Health Research*, 1-11. <https://doi.org/10.1080/09603123.2022.2159017>.
16. **Gitter, A.***, Oghuan, J.*, Godbole, A.R. *, Chavarria, C.A., Monserrat, C., Hu, T., Wang, Y., Maresso, A.W., Hanson, B., Mena, K.D. & Wu, F. (2023). Not a waste: wastewater surveillance to enhance public health. *Frontiers in Chemical Engineering*. 4: 1112876. <https://doi.org/10.3389/fceng.2022.1112876>.
*These three authors contributed equally.
17. Wu, F., Oghuan, J., **Gitter, A.**, Mena, K.D. & Brown, E. (2023). Wide mismatches in the sequences of primers and probes for Monkeypox virus diagnostic assays. *Journal of Medical Virology*. 95(1): e28395.
18. Phan, T., Brozak, S., Pell, B., **Gitter, A.**, Mena, K.D., Kuang, Y. & Wu, F. (2023). A simple SEIR-V model to estimate infectious COVID-19 cases and predict viral transmission using wastewater-based surveillance data. *Science of the Total Environment*. 857(1): 159326. <https://doi.org/10.1016/j.scitotenv.2022.159326>.
19. Schramm, M., **Gitter, A.**, & Gregory, L. (2022). Total Maximum Daily Loads and *Escherichia coli* trends in Texas freshwater streams. *Journal of Contemporary Water Research and Education*. 176(1): 36-49.
20. **Gitter, A.**, Mena, K. D., Wagner, K. L., Boellstorff, D. E., Borel, K. E., Gregory, L. F., Gentry, T. J., & Karthikeyan, R. (2020). Human Health Risks Associated with Recreational Waters: Preliminary Approach of Integrating Quantitative Microbial Risk Assessment with Microbial Source Tracking. *Water*. 12(2): 327.
21. Gregory, L.F., **Gitter, A.**, Muela, S., & Wagner, K. L. (2019). Should Contact Recreation Water Quality Standards be Consistent across Hydrological Extremes?. *Journal of Contemporary Water Research & Education*. 166: 12-23.
22. Anderson, J., **Gitter, A.**, Lacey, R., & Karthikeyan, R. (2018). Transport, fate, and toxicity of selected public health insecticides in waterways. *Toxicological & Environmental Chemistry*. 100(1): 32-46.

23. Hamilton, K. A., Chen, A., Johnson, E. D. G., **Gitter, A.**, Kozak, S., Niquice, C., Zimmer-Faust, A. G., Weir, M. H., Mitchell, J., & Gurian, P. L. (2018). Salmonella risks due to consumption of aquaculture-produced shrimp. *Microbial Risk Analysis*. 9: 22-32.

In development/Under Review

24. Phan, T., Brozak, S., Pell, B., Ciupe, S.M., Ke, R., Ribeiro, R.M., **Gitter, A.**, Mena, K.D., Perelson, A.S., Kuang, Y., Wu, F. Prolonged viral shedding from noninfectious individuals confounds wastewater-based epidemiology. (Under Revision and Resubmission).
25. Chen, X., Phan, T., Lee, W.L., Rhode, S.F., Brozak, S., Pell, B., Palden, T., **Gitter, A.**, Kuang, Y., Wuertz, S., Thompson, J., Mena, K.D., Alm, E.J. & Wu, F. Global circulation of SARS-CoV-2 Omicron variant preceding the first case report revealed by wastewater surveillance. (Under review in *Water Research*).
26. **Gitter, A.**, Powers, N., Postma, S., Pinchback, J., Gregory, L. Evaluating human health risks in Little Bay. (Manuscript under development).
27. Idris, M.A., Deemer, E., **Gitter, A.**, Gao, J. Hydration Break Access and Occupational Health Outcomes Among USA Construction Workers: Evidence from National Surveys. (Manuscript submitted to *Frontiers in Public Health-Occupational Health Section*).
28. Hu, J., **Gitter, A.**, Ruvalcaba, V., Gregory, L.F., Gentry, T.J. Integrating Microbial Source Tracking and Quantitative Microbial Risk Assessment to Characterize Fecal Pollution in a Rural Mixed-Use Watershed in Texas, USA. (Manuscript under development).

Peer-Reviewed Reports/Letters

1. **Gitter, A.**, Powers, N., Postma, S., Gregory, L. 2025. *Evaluating Human Health Risks in Little Bay Final Report*. Texas Water Resources Institute, TR-557.
2. Tisza, M.J., Hanson, B.M., Wang, L., Payne, K., Clark, J.R., Ross, M.C., Mena, K.D., **Gitter, A.**, Javornik-Cregeen, S.J., Wu, F., Rios, J., Deegan, J., Piedra, P.A., Petrosino, J.F., Boerwinkle, E., Maresso, A.W. Sequencing-Based Detection of Avian Influenza A (H5N1) in Wastewater in Ten Cities. *The New England Journal of Medicine*. doi:10.1056/NEJMc2405937
3. Gregory, L.F., Tague, A., Hu, J., Gentry, T., Hux, B., **Gitter, A.**, Monserrat, C., Ruvalcaba, V., Bare, R., Kinsfather, C., Wetz, M., Frasca, A., Sengupta, D. 2024. *Texas Bacterial Source Tracking Program (FY22-23)*. Texas Water Resources Institute, TR-XX.
4. Gregory, L.F., Hux, B., Gentry, T.J., **Gitter, A.**, Monserrat, C., Casarez, E., Mena, K. 2022. *Texas Bacterial Source Tracking Program (FY20-FY21)*. Texas Water Resources Institute, TR-542.
5. Yang, L., **Gitter, A.**, Jain, S., Gregory, L. 2022. Watershed Characterization of the Angelina River above Sam Rayburn Reservoir Watershed. Texas Water Resources Institute, TR-539.
6. Schramm, M., **Gitter, A.**, Rambo, J., DeVilleneuve, S., Rhodes, E., Gregory, L. 2021. *Comparison of Daily Streamflow Estimation Methods in the Thompsons Creek Watershed*. Texas Water Resources Institute, TR-535.
7. **Gitter, A.** Gregory, L., Hux, B., Boswell, J., Gentry, T., Monserrat, C., Casarez, E., K. Mena. 2020. *Expansion and Evaluation of the Texas Bacterial Source Tracking Program (FY18-FY19)*. Texas Water Resources Institute, TR-530.
8. **Gitter, A.** Nayal, M., Rambo, J., Yang, L., L. Gregory. 2020. *Watershed Characterization of the Thompsons Creek Watershed*. Texas Water Resources Institute, TR-526.

9. **Gitter, A.**, Yang, L., L. Gregory. 2019. *Watershed Characterization of the Tributaries of the Neches River below Lake Palestine: Cedar, Hurricane, Biloxi and Jack Creeks*. Texas Water Resources Institute, TR-518.
10. Gregory, L., K. Lazar, **A. Gitter**. 2017. *Navasota River Below Lake Limestone Watershed Protection Plan*. Texas Water Resources Institute, TR-497.
11. Gregory, L., B. Jonescu, J. Murray, C. Schulz, **A. Gitter**, K. Wagner. 2016. *Carters Creek Total Maximum Daily Load Implementation Project Final Report*. Texas Water Resources Institute, TR-488.
12. Jonescu, B., L. Gregory, **A. Gitter**, K. Wagner. 2016. *Carters Creek Total Maximum Daily Load Implementation Project Routine, Reconnaissance and Stormwater Monitoring Report: Tasks 4 and 5*. Texas Water Resources Institute, TR-485.
13. Gregory, L. **A. Gitter**, K. Lazar. 2015. *Basin Approach to Address Bacterial Impairments in the Navasota River Watershed*. Texas Water Resources Institute, TR-476.

Grants

Current Funding

1. 2025-2026 “Integrating MST and QMRA to Improve Environmental Health in a Coastal Community,” Coastal Bends and Bays Estuaries Program, (Total Cost: \$83,109, Role: Principal Investigator)
2. 2025-2026 “Identification of Cattle-Associated Fecal Pollution and Its Impact on Human Health in Oyster Harvesting Waters,” Coastal Bends and Bays Estuaries Program, (Total Cost: \$55,488, Role: Subaward Principal Investigator)
3. 2022-2025 "Improving Community Health: MST and QMRA on the Texas Coast," Improving Community Health through Microbial Source Tracking (EPA-GM-2021-MST), Funder: U.S. EPA Gulf of Mexico, Effort: Year 1: 10.8%, Year 2: 11.87%, Year 3: 20%, Role: Subaward PI (Total Cost: \$494,348)
4. 2023-2024 “Texas Epidemic Public Health Institute (TEPHI),” Funder: State of Texas Office of the Governor, 10% FTE, Role: Researcher.
5. 2024-2026 “Texas Bacterial Source Tracking (FY25-26),” Funder: Texas State Soil and Water Conservation Board, 10% FTE, Role: Subaward PI (Total Cost: \$510,735)
6. 2025-2029 R01 ES036253 “PFAS and bone health in Latinos: emerging risk factors and underlying mechanisms,” NIH/NIEHS, 5% FTE, (Total Cost: \$1,128,195, Role: Subaward Co-Investigator, Contact PI: Chatzi, Subcontract PI: McCormick).
7. 2023-2025 Southwest Center for Occupational and Environmental Health, Program: NIOSH Education and Research Center (ERC) (T42OH008421), Funder: CDC National Institute for Occupational Safety and Health, 5% FTE, Role: Co-Investigator (ERC Director: Sarah Felknor).

8. 2024-2031 1UM1TR004906-01 “National Center for Clinical and Translational Sciences,” Program: National Center for Advancing Translational Sciences, Funder: National Institutes of Health, 10% FTE, (Total Cost: \$55,5000,000, Role: Co-Investigator)

Previously Funded

1. 2023-2025 Southwest Center for Occupational and Environmental Health, Program: NIOSH Education and Research Center (ERC) (T42OH008421), Funder: CDC National Institute for Occupational Safety and Health, 2% FTE, Role: Co-Investigator (ERC Director: Sarah Felknor).
2. 2024-2025 “Translating water quality data into human health risks for a Coastal Bend community” TAMUCC Office of Research Engagement. Role: Consultant. Total: \$4,107 (PI: Powers, TAMUCC).
3. 2022-2024 "Evaluating Source-Specific Health Risks of Fecal Pollution in Little Bay," Texas General Land Office Coastal Management Program, Funder: Texas General Land Office Coastal Management Program; National Oceanic and Atmospheric Association, 12% FTE, Role: Subaward PI (Total Direct Costs: \$87,633)
4. 2022-2024 “Children’s Healthy Learning Environments,” Funder: United States Environmental Protection Agency, 10% FTE, Role: Postdoctoral Researcher (PI: Kristina D. Mena), (Total Cost: \$199,959)
5. 2022-2024 "Texas Bacterial Source Tracking (FY23-24)", Funder: Texas State Soil and Water Conservation Board, 15% FTE, Role: Subaward PI (Total Cost: \$646,154)
6. 2020-2022 “Texas Bacterial Source Tracking (FY20-21)”, Texas State Soil and Water Conservation Board, (Total Cost: \$433,085, Role: Grant Writer, Project Manager and Research Assistant/Specialist; Co-PIs: Lucas Gregory and Terry Gentry; Co-I: Kristina Mena)
7. 2020-2021 “Approach to Address Indicator Bacteria Impairments in the Thompsons Creek Watershed (FY21)”, Texas Commission on Environmental Quality TMDL Program, (Total Cost: \$59,809, Role: Project Manager and Research Specialist; PI: Lucas Gregory)
8. 2020-2021 “Support for Total Maximum Daily Loads (TMDLs) to Address Bacteria Impairments in Cedar Creek, Hurricane Creek, Jack Creek, and Biloxi Creek (FY21)”, Texas Commission on Environmental Quality TMDL Program (Total Cost: \$67,134, Role: Project Manager and Research Specialist; PI: Lucas Gregory)
9. 2017-2021 “Water Quality and Pollutant Loading Assessment in the Angelina River above Sam Rayburn Watershed,” Texas State Soil and Water Conservation Board, (Total Cost: \$384,945, Role: Project Manager and Research Assistant, PI: Lucas Gregory)

10. 2019-2020 “Approach to Address Indicator Bacteria Impairments in the Thompsons Creek Watershed (FY20)”, Texas Commission on Environmental Quality TMDL Program, (Total Cost: \$85,298, Role: Project Manager and Research Assistant; PI: Lucas Gregory)
11. 2019-2020 “Support to Address Indicator Bacteria Impairments in Tributaries of the Neches River Below Lake Palestine (FY20)”, Texas Commission on Environmental Quality TMDL Program, (Total Cost: \$131,190, Role: Project Manager and Research Assistant; PI: Lucas Gregory)
12. 2018-2019 “Approach to Address Indicator Bacteria Impairments in Tributaries of the Neches River Below Lake Palestine (FY19)”, Texas Commission on Environmental Quality TMDL Program, (Total Cost: \$164,387, Role: Project Manager and Research Assistant; PI: Lucas Gregory)
13. 2018-2020 “Texas Bacterial Source Tracking Program (FY18-19)”, Texas State Soil and Water Conservation Board, (Total Cost: \$370,169, Role: Project Manager, Co-PIs: Lucas Gregory and Terry Gentry; Co-I: Kristina D. Mena)

Recently Submitted

1. 2025-2028 “Wastewater-Based Monitoring for Measles: Detection, Modeling, and Risk Assessment”, National Science Foundation, (Total Cost: \$550,206, Role: Co-Investigator)
2. 2026-2029, “Wastewater Analytics for Tracking Epidemiological risks for Cancer Awareness, Response and Detection (WATER-CARD)”, NCI/NIH, (Total Cost: \$1,852,192; Role: MPI)
3. 2027-2029, “Texas Bacterial Source Tracking Program (FY27-28)”, Texas State Soil and Water Conservation Board, (Total Cost: \$957,410 , Role: Subaward PI)

Not Funded

1. 2021-2023 “Demonstration of Next Generation Sequencing of Pathogens to Identify Waterborne Pollutant Sources and Associated Human Health Risks”, Texas State Soil and Water Conservation Board, (Requested Amount: \$184,164, Role: Grant Writer and Project Manager; Co-PIs: Lucas Gregory and Terry Gentry)
2. 2023-2025 “Community, Wastewater, and Public Health: Bridging Gaps for Outbreak Preparedness,” The Water Research Foundation, (Total Funds Requested: \$216,276, Role: Principal Investigator, Co-PI: Kristina D. Mena)
3. 2023-2024 “Water, Health, and Climate: A conference to advance water to address climate change and public health challenges in the Paso del Norte Region”, Burroughs Wellcome Fund Climate Change and Human Health Seed Grants, (Total Funds Requested: \$49,546, Role: Principal Investigator, Co-I: Kristina D. Mena)
4. 2023-2025 “Advancing Water Reuse Technologies for Workforce Development,” National Science Foundation Regional Innovation Engines, (Total Funds Requested: \$709,150, Role: Postdoctoral Researcher; Co-Is: Fuqing Wu and Kayo Fujimoto; PI: Kristina D. Mena).
5. 2024-2033 “Diversifying the Economics of Water,” National Science Foundation Regional Innovation Engines, (Total Funds Request: \$10,263,094, Role: Co-I/Postdoctoral Researcher; Co-I: Fuqing Wu; PI: Kristina D. Mena).

6. 2024-2025 “Food Safety for Mars: Assessing and Mitigating Microbial Contamination of Packaged Foods for Prolonged Spaceflight using QMRA,” National Aeronautical Space Administration, (Total Funds Requested: \$149,005, Role: Principal Investigator; Co-Is: Kristina D. Mena and Cici Bauer).
7. 2024-2026 “Enhancing the Multi-Cultural Water Workforce for Regional Success,” The Water Research Foundation, (Total Funds Requested: \$125,293, Role: Principal Investigator, Co-PI: Kristina D. Mena)
8. 2025-2027 “Integrating MST and QMRA to Improve Environmental Health on the Texas Coast,” Texas General Land Office Coastal Management Program and the National Oceanic and Atmospheric Association, (Total Cost: \$251,827, Role: Principal Investigator, Co-PIs: Lucas Gregory and Nicole Powers)
9. 2025-2028 “Building a Healthier, Resilient, and More Prosperous South Central El Paso,” United States Environmental Protection Agency, (Total Cost: \$17,571,990, Role: Co-Investigator)
10. 2025-2030 “Resilience Revolution: Community-Powered Climate Solutions for the Texas Gulf Coast,” National Academy of Sciences, Engineering, and Medicine (NASEM), (Total Cost: 18,647,954, Role: Co-Investigator)
11. 2025-2027 “BST State of the Science Conference,” Texas State Soil and Water Conservation Board, (Total Subaward Cost: \$24,709, Role: Subaward PI)
12. 2025-2026 “Characterizing experiences of water insecurity in the Acres Homes community,” U54 Acres Homes Cancer Prevention Collaboration Pilot Projects, (Total Cost: \$67,048, Role: Principal Investigator)
13. 2025-2026 “Assessing consumption and perceptions of drinking water in the Acres Homes community,” U54 Acres Homes Cancer Prevention Collaboration Pilot Projects, (Total Cost: \$46,638, Role: Principal Investigator)
14. 2025-2028 “Upstream: A Collaborative Approach to Reducing Pollution in the Gulf of Mexico,” U.S. Environmental Protection Agency, (Total Cost: \$643,742, Role: Co-Principal Investigator)
15. 2025-2028 “Comprehensive assessment of De Facto Water Reuse in the Rio Grande: multi-indicator analysis, risk evaluation, and decision support tool development,” United States Environmental Protection Agency, (Total Cost: \$2,188,742, Role: Principal Investigator, Co-PI: Fuqing Wu). Notified that due to changing Administration priorities, the issuance of an award was cancelled.
16. 2025-2026 “Pocket Ark H2O,” Gulf Coast Center for Precision Environmental Health (GC-CPEH), LOI Submission (Role: Co-I).
17. 2025-2027 “Safe Drinking Water? Investigating Public Health Risks in Private Wells along the Texas Gulf Coast,” Texas One Gulf Consortium, (Total Cost: \$350,682, Role: Subaward Principal Investigator). Ranked as Good.
18. 2026-2029 “Wastewater Analytics for Tracking Epidemiological risks for Cancer Awareness, Response and Detection (WATER-CARD),” CPRIT, (Role: Co-I)
19. 2025-2027 R21 “Hidden Disparities: Advancing wastewater surveillance to address environmental health disparities in a U.S.-Mexico border city,” NIH/NIEHS, (Total Cost: \$427,656, Role: Principal Investigator). Impact Factor: 45, Percentile: 39
20. 2025-2026, “Climate Resilience and Human Health: Investigating Private Well Vulnerabilities along the Texas Gulf Coast,” Burroughs Wellcome Fund Climate Change and Human Health Seed Grants, (Total Cost: \$50,000, Role: Subaward PI)

21. 2025-2026, “Characterizing Experiences of Household Water Use in a U.S.-Mexico Border Community,” UTHealth Houston School of Public Health PRIME Award Funding Mechanism, (Total Cost: \$23,758, Role: Principal Investigator)

Teaching

- Co-Instructor (10%): PHM 2135/PHD 2135L: *Risk Analysis-Principles and Practice* (Spring 2023)
- Instructor (100%): PHW2205: *Health & Safety Program Management & Leadership* (Spring 2024, 2025)
- Instructor (100%): PHW2110: *Public Health Ecology and the Human Environment* (Spring 2024 (2 sections) Summer 2024 (20%), Spring 2025, Fall 2025)
- Co-Instructor (100%): PHWD2106: *Introduction to Doctoral Research Methods in Environmental and Occupational Health Sciences* (Fall 2024, 2025)

Guest Lectures

- UTHealth Houston SPH PH5610 Global Health Overview Class, *The Wicked Challenges Facing Water: Public Health Needs in Light of Climate Change* (October 25, 2023)
- UTHealth Houston SPH PH5610 Global Health Overview Class, *The Wicked Challenges Facing Water: Public Health Needs in a Changing World* (October 23, 2024)
- UTHealth Houston SPH PH 2362L Environmental Epidemiology, *Public Health Considerations when Assessing Contact Recreation: Integrating MST-QMRA* (February 28, 2025)

Fellowships

- Postdoctoral Research Fellowship, UTHealth Houston School of Public Health (2022-2023)
- OGAPS Dissertation Fellowship, Texas A&M University (2020) (*declined due to employment conflict)

Honors/Awards

- Texas Water Foundation Texas Water Leader (2025)
- UCOWR Ph.D. Dissertation Award in Water Policy & Socioeconomics (2023)
- UCOWR 2022 *Journal of Contemporary Water Research and Education (JCWRE)* Paper of the Year Award (2023): Schramm, M., **Gitter, A.**, & Gregory, L. (2022). Total Maximum Daily Loads and *Escherichia coli* Trends in Texas freshwater streams. *Journal of Contemporary Water Research and Education*, 176(1), 36-49.
- UTHealth Houston Postdoctoral Travel Award (2022)
- UCOWR/NIWR Annual Water Resources Conference-2nd place Graduate Student Oral Presentation (2021)
- Editor’s Choice Award (June 1, 2020): **Gitter, A.**, K.D. Mena, K.L. Wagner, D.E. Boellstorff, K.E. Borel, L.F. Gregory, T.J. Gentry and R. Karthikeyan. (2020). Human health risks associated with recreational waters: preliminary approach of integrating quantitative microbial risk assessment with microbial source tracking. *Water* 12(2):327. <https://doi.org/10.3390/w12020327>.
- Mills Scholarship, Texas Water Resources Institute Mills Scholars Program (2019)
- Water Daze Poster Competition-2nd Place Award, Water Management and Hydrological Sciences Program, Texas A&M University (2018)

Invited Presentations/Seminars/Panels/Stakeholder Meetings

1. Invited Panel Participant, Texas Watershed Roundtable Meeting, Texas A&M AgriLife/Texas Water Resources Institute, College Station, TX, May 2025.
2. Evaluating Source-Specific Health Risks in Texas Recreational Waters. (**Gitter, A.**). Invited presentation given at the Texas Watershed Roundtable Meeting, Texas A&M AgriLife/Texas Water Resources Institute, College Station, TX, May 2025.
3. Evaluating Public Health Applications for Water Resource Management. (**Gitter, A.**) Invited presentation given at the UCOWR National Water Seminar, Virtual, April 2025.
4. Water Reuse, Clinical Practice & Public Health. (**Gitter, A.**, Mena, Kristina D., Rodriguez, Ruben) Presentation given to 2nd year Medical Students at the Texas Tech University Health Sciences Center at El Paso, El Paso, TX, In-Person, January 2025.
5. Public Health Considerations when Assessing Contact Recreation: Integrating MST-QMRA (**Gitter, A.**), Bacteria Implementation Group 2024 Workshop, Houston-Galveston Area Council, Houston, TX, In-Person, November 2024.
6. Water Quality and Human Health: City-By-The-Sea (Powers, N.C., **Gitter, A.**, Bleth, N., Turner, J.W.), City-By-The-Sea Property Owners Association Annual Meeting, Rockport, TX, In-Person, August 2024.
7. The Wonders and Woes of Water: Improving School Water Environments to Promote Healthy Learning (Ruvalcaba, V.*, **Gitter, A.**, Vasquez, D., Griffin, C., Mena K.D.), Healthy Learning Environmental Conference, Texas Tech University Health Sciences in El Paso/Southwest Center for Pediatric Environmental Health, El Paso, TX, In-Person, July 2024.
8. Follow-Up Little Bay Stakeholder Meeting. (**Gitter, A.**, Powers, N., Gregory, L., Postma, S.) Follow-up presentation given to local stakeholders in Rockport, TX. In-Person, May 2024.
9. Invited Speaker, Innovating Water Resources Management through a Public Health Lens, Translational Research Seminar Series (TRSS), UTHealth Houston School of Public Health Brownsville Campus, Brownsville, TX. In-Person, April 2024.
10. Invited Panel Participant, “*The Role of Community Partners and Academic Institutions in Regional Health Engagement and Collaboration*” 2nd Annual West Texas Health Disparities Research Symposium, Texas Tech University Health Sciences, Lubbock, TX, In-Person, March 2024.
11. Water Reuse in El Paso. (Trejo, G., **Gitter, A.**, Balliew, J.) Presentation given to 2nd year Medical Students at the Texas Tech University Health Sciences Center at El Paso, El Paso, TX, In-Person, January 2024.
12. Wisdom from wastewater: Utilizing pathogen-based wastewater monitoring for public health preparedness. (**Gitter, A.**) Texas Association of Clean Water Agencies, El Paso, TX, In-Person, January 2024.
13. Assessing Community Risks: Translating Environmental Data to Advance Public Health. (**Gitter, A.**) Environmental and Occupational Health Sciences Research Seminar, Houston/Online, TX, Hybrid, January 2024.
14. Little Bay Stakeholder Meeting. (**Gitter, A.**, Powers, N., Gregory, L., Postma, S.) Presentation given to local stakeholders in Rockport, TX. In-Person, December 2023.
15. Wisdom from wastewater: lessons learned from a SARS-CoV-2 wastewater monitoring program. (**Gitter, A.**, Bauer, C., Wu, F., Chavarria, C., Mena, K.D.) Mississippi Water Resources Conference, Starkville, MS, In-Person, March 2023.

*Graduate student presenting

Conference Presentations

1. Wisdom from Wastewater: Considerations in How We Use Wastewater Monitoring to Address Public Health Challenges. (**Gitter, A.**) Universities Council on Water Resources/National Institutes of Water Resources, Minneapolis, MN, June 2025.
2. Beneath the Surface: Understanding Human Health Risks for Safe Recreational Waters in a Texas Coastal Community. (Ruvalcaba, V*, **Gitter, A.**, Powers, N., Postma, S., Gregory, L.) Universities Council on Water Resources/National Institutes of Water Resources, Minneapolis, MN, June 2025.
3. There's What in the Water? Why bacterial source tracking and risk assessment can improve recreational water quality. (**Gitter, A.**, Powers, N., Gregory, L.F., Postma, S.) Universities Council on Water Resources/National Institutes of Water Resources/American Water Resources Association Annual Conference, St. Louis, MO, October 2024.
4. Flood Management for Private Wells: Utilizing QMRA and Survey Approaches to Understand Well User Health Risks and Practices after Hurricane Harvey. (**Gitter, A.**, Boellstorff, D.E., Mena, K.D., Gholson, D.M., Pieper, K.J., Chavarria, C.A., Gentry, T. J.). Universities Council on Water Resources/National Institutes of Water Resources Conference, Fort Collins, CO, June 2023.
5. Quantitative microbial risk assessment of recreational beaches impacted by human, dog, and gull fecal sources. (**Gitter, A.**, Gidley, M., Sinigalliano, C., Solo-Gabriele, H., Mena, K. D.). Universities Council on Water Resources/National Institutes of Water Resources Conference, Greenville, SC, June 2022.
6. Risk Characterization of Private Wells Impacted by Hurricane Harvey Flooding. (**Gitter, A.**, Gentry, T., Mena, K.D., Boellstorff, D.E., Peterson, J., Gregory, L., and D. Gholson) Universities Council on Water Resources/National Institutes of Water Resources Conference, Virtual, June 2021.
7. Understanding Health Risks Associated with Flooding and Wells after Hurricane Harvey. (**Gitter, A.**, Gentry, T., Mena, K.D., Boellstorff, D.E., Peterson, J., Gregory, L., and D. Gholson) National Monitoring Conference, Virtual, April 2021.
8. Quantitative microbial risk assessment of contaminated private wells impacted by Hurricane Harvey flooding. (**Gitter, A.**, Gentry, T., Mena, K.D., Boellstorff, D.E., Gregory, L. and D. Gholson) Water and Health Conference, Chapel Hill, NC, October 2019.
9. Human health risks associated with microbial contamination of private wells impacted by floodwater from Hurricane Harvey. (**Gitter, A.**, Gentry, T., Mena, K.D., Boellstorff, D.E., Gregory, L. and D. Gholson) Southern Region Water Conference, College Station, TX, July 2019.
10. Identifying Data Gaps in Understanding Feasibility of Reuse of Nanoparticles-containing Wastewater and Un-Disinfected Biologically Stabilized Wastewater in Aquaculture. (Anandan, A., Arlene Chen, A., de-Graft Johnson, E., **Gitter, A.**, Gurian, P.L., Hamilton, K., Kumar, A., Kozak, S., Mitchell, J., Niquice, C., Singh, D., Baranidharan, S., and A. Zimmer-Faust) American Chemical Society, Philadelphia, PA, August 2016.

*Student presentation

Conference Sessions Organized

- “Ensuring Safe Water for All: Challenges and Innovations in Water Resource Management”, 2025 Universities Council on Water Resources/National Institutes of Water Resources Annual Conference, Minneapolis, MN (June 2025).
- “Protecting Human Health through Water Resources Management”, 2022 Universities Council on Water Resources/National Institutes of Water Resources Annual Conference, Greenville, SC (June 2022).
- “Understanding and Managing Water Resources Related to Human Health” 2021 Virtual Universities Council on Water Resources/National Institutes of Water Resources Annual Conference, Virtual, (June 2021).

Roundtables

- “Water and Public Health” Roundtable, Universities Council on Water Resources/National Institutes of Water Resources Annual Conference, Minneapolis, MN (June 2025)
- Executive Roundtable for “El Paso Water’s Future,” El Paso Water, El Paso, TX (November 2024)
- “Fecal Indicator Organisms...What are they good for?” Universities Council on Water Resources 2021 Virtual Roundtable (February 2021).

Media

1. Provided technical information regarding water filtration for *Everyday Health*, “The 8 Best Expert-Recommended Water Filters for Your Home,” (May 29, 2025)
2. Provided technical information/interviewed for story on lake water quality for recreation with KLBK-TV (Lubbock, TX) (May 6, 2025)
3. Recorded interview “What goes into providing safe, drinkable water,” KTSM-El Paso Local News (August 24, 2024)
4. Social Media Videos for EPWater, “Water Talks with Dr. Gitter,” 4-part series, August 2024
5. Interviewed and quoted for the article, “El Paso’s drinking water has small amounts of lithium. What does that mean,” *El Paso Matters* (July 13, 2024)
6. Provided technical information regarding micro and nanoplastics in tap water to reporter with *Verywell Health* (March 5, 2024)
7. Recorded interview regarding nanoplastics in plastic bottled drinking water, KHOU 11 Houston Local News (January 11, 2024)
8. Live interview regarding nanoplastics in plastic bottled drinking water, FOX26 Houston Local News (January 11, 2024)
9. Provided technical information regarding CERCLA and remediation to reporter with the *Houston Landing* (September 21, 2023)
10. Interviewed and quoted for the article, “El Paso Water, local law enforcement warn about scheme to sell costly water filters; say city’s water is safe to drink,” *El Paso Matters* (September 24, 2023)
11. “Meet a scientist: Anna Gitter,” Texas Water Resources Institute, Texas A&M AgriLife (2019): (<https://twri.tamu.edu/news/2019/august/meet-a-scientist-anna-gitter/>)

Professional and Volunteer Service

- Steering Committee Member, NSF Well Water RCN 2025-current
- Lead Delegate, Universities Council on Water Resources 2025-current
- Paper of the Year Reviewer, *Journal of Contemporary Water Research and Education* 2025

- Vice-Chair, El Paso Water Public Service Board 2025-current
- Education/Communication Board Member, El Paso Water Public Service Board 2024-current
- Run El Paso Board Member 2024-current
- Academic Editor, *PLOS ONE* Journal 2025-current
- Vida Water Technical Advisory Group 2024
- Associate Editor, *Journal of Contemporary Water Research and Education* 2023-current
- EOHS Admissions Committee 2024-current
- EOHS Scholarship Committee 2024-current
- EOHS Public Health Engineer Faculty Search Committee 2024
- Practice Council, UTHealth Houston SPH 2023-2025
 - El Paso Campus Representative
- Faculty Council, UTHealth Houston SPH 2023-2025
 - EOHS Representative Alternate
- El Paso Campus Scholarship Committee 2023-current
- El Paso Campus Social Events Committee 2022-current
- TEPHI TEXWeb Consortium Committee 2022-current
- TEPHI Wastewater Action Plan WG Committee 2022-current
- Brazos Runners Club Board Member 2018-2021

Professional Experience

Reviewer

November 2021-current

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| ○ <i>Journal of Water and Health</i> | ○ <i>International Journal of</i> |
| ○ <i>Human and Ecological Risk</i> | ○ <i>Environmental Research and</i> |
| ○ <i>Assessment: An International</i> | ○ <i>Public Health</i> |
| ○ <i>Journal</i> | ○ <i>Societies</i> |
| ○ <i>Environmental Science and</i> | ○ <i>Sustainability</i> |
| ○ <i>Pollution Research</i> | ○ <i>Water</i> |
| ○ <i>South Carolina Journal of Water</i> | ○ <i>Pollutants</i> |
| ○ <i>Resources</i> | ○ <i>Journal of Environmental</i> |
| ○ <i>Water and Environment</i> | ○ <i>Science & Health, Part A</i> |
| ○ <i>Rapid Reviews Infectious</i> | ○ <i>Health Science Reports</i> |
| ○ <i>Diseases</i> | ○ <i>Journal of Environmental</i> |
| ○ <i>Microbial Ecology</i> | ○ <i>Management</i> |
| ○ <i>Discover Water</i> | ○ <i>Environmental Monitoring &</i> |
| ○ <i>Science of the Total Environment</i> | ○ <i>Assessment</i> |

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| Reviewer , 2026-28 Wisconsin Sea Grant College Program | May 2025 |
| Reviewer , NSF Review Panel ITE Division | 2025 |
| Reviewer , EOHS Preliminary Exam | January 2025 |
| Reviewer , NIOSH Pilot Projects Research Training Program | December 2023, 2024 |
| Reviewer , UTHealth Houston Postdoctoral Travel Awards-Cycle 1 | December 2022 |
| Reviewer , TWRI Mills Scholarship Program | December 2020 |
| Reviewer , USGS Graduate Research Program | December 2020 |

Participant, Quantitative Microbial Risk Assessment Interdisciplinary
Instructional Institute (QMRA III)
Michigan State University, East Lansing, MI

July 2016

Participant, International Perspectives on QMRA
Drexel University, Philadelphia, PA

June 2015

Professional Memberships

- American Water Works Association member (2021-2022)
- National Science Foundation Private Well Research Coordination Network (2024-current)
- Universities Council on Water Resources Member Institution (2025-current)

Student Advising

Student Name	Degree	Role	Institution
Lucy Lee	PhD (2025-ongoing)	PhD Academic Advisor	UTHealth H SPH
Catherine Turlington	PhD (2025-ongoing)	PhD Academic Advisor	UTHealth H SPH
Charles Varghese	MPH (2025-ongoing)	MPH Advisor	UTHealth H SPH
Carlos Monserrat	MPH (2025-ongoing)	MPH Advisor	UTHealth H SPH
Allan Stockton	MPH (2024-ongoing)	MPH Advisor	UTHealth H SPH
Aashka Jain	MPH (2024-ongoing)	MPH Advisor	UTHealth H SPH
John Huguley	MPH (2024-ongoing)	MPH Advisor	UTHealth H SPH
Adrian Garcia	MPH (2023-ongoing)	MPH Advisor	UTHealth H SPH
Valeria Ruvalcaba	PhD (2024-ongoing)	PhD Academic and Dissertation Advisor	UTHealth H SPH
Linette Leadon	PhD (2024-ongoing)	PhD Academic Advisor	UTHealth H SPH
Dionibe Some	Ph.D. (2023-ongoing)	PhD Dissertation Advisor	UTHealth H SPH
Mahmoud Diallo	PhD (2024-2025)	PhD Academic Advisor	UTHealth H SPH
Jo Ann Monroy	DrPH (2024)	PhD Academic Advisor	UTHealth H SPH
Lynne Heilbrun	Ph.D. (2023-2024)	PhD Academic Advisor	UTHealth H SPH
Carlos Chavarria	MPH/Ph.D. (2022-2023)	Mentor	UTHealth H SPH
Karla Mendez	Ph.D. (2022)	Mentor	UTHealth H SPH
Taylor Jordan	Ph.D. (2021)	Professional Mentor	Texas A&M University
Luna Yang	Ph.D. (2020-2021)	Professional Mentor	Texas A&M University