

Stanford



Alexandria Boehm

Professor of Civil and Environmental Engineering and Senior Fellow at the Woods Institute for the Environment

CONTACT INFORMATION

- **Administrator**

Jia Nocon - Administrative Associate

Email jnocon@stanford.edu

Tel (650) 725-2383

Bio

BIO

My primary research area is coastal water quality, and recently I have expanded my research to include activities on sanitation more broadly. The work on coastal water quality is focused on understanding the sources, transformation, transport, and ecology of biocolloids - specifically fecal indicator organisms, pathogens, and phytoplankton, as well as sources and fate of nitrogen and phosphorus. This knowledge is crucial to directing new policies, and management and engineering practices that protect human and ecosystem health along the coastal margin. The work on sanitation aims to develop microbial risk assessment models to gain a better understanding of how pathogens are transmitted to humans through their contact with water, feces, and contaminated surfaces. Research is focused on key problems in developed and developing countries. The goal is to design and test effective interventions and technologies for reducing the burden of infectious disease.

ACADEMIC APPOINTMENTS

- Professor, Civil and Environmental Engineering
- Senior Fellow, Stanford Woods Institute for the Environment
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Affiliate, Stanford Woods Institute for the Environment

ADMINISTRATIVE APPOINTMENTS

- Faculty Fellow, Center for Innovation in Global Health, (2015- present)

HONORS AND AWARDS

- Huber Prize, ASCE (2016)
- Participant in National Academy of Engineers' Frontiers of Engineering Symposium, National Academy of Engineers (2008)
- CAREER Award, National Science Foundation (2007)
- Visiting Scholar, Pacific Rim Center for Oceans and Human Health (2007)
- Excellence in Teaching Award, UC Irvine (2001)
- Faculty Fellow Award, UC Irvine (2000-2002)

- Chair of West Coast Panel on Ocean Acidification and Hypoxia, States of California, Oregon, Washington, Province of British Columbia (2013-2016)

PROFESSIONAL EDUCATION

- BS, California Institute of Technology , Engineering & Applied Science (1996)
- MS, UC Irvine , Environmental Engineering (1997)
- PhD, UC Irvine (2000)

COMMUNITY AND INTERNATIONAL WORK

- Pathogen contamination in household environments, Bangladesh

LINKS

- <http://www.stanford.edu/~aboehm>: <http://www.stanford.edu/~aboehm>

Research & Scholarship

PROJECTS

- Microbial Source Tracking in Developing Countries - Stanford University
- Coastal Water Quality - Citizen science

Teaching

COURSES

2018-19

- Coastal Contaminants: CEE 272 (Win)
- Urban Water: OSPSANTG 76 (Spr)
- Urban Water Conflicts: CEE 374Z (Aut)

2017-18

- Advanced Topics in Coastal Pollution: CEE 374T (Aut, Win, Spr, Sum)
- Advanced Topics in Microbial Pollution: CEE 374S (Win, Spr, Sum)
- Advanced Topics in Microbial Source Tracking: CEE 374V (Aut, Win, Spr, Sum)
- Advanced Topics in Submarine Groundwater Discharge: CEE 374U (Aut, Win, Spr, Sum)
- California Coast: Science, Policy and Law: LAW 2510 (Spr)
- California Coast: Science, Policy, and Law: CEE 175A, CEE 275A (Spr)
- Coastal Contaminants: CEE 272 (Win)

2016-17

- Advanced Topics in Coastal Pollution: CEE 374T (Aut, Win, Spr, Sum)
- Advanced Topics in Microbial Pollution: CEE 374S (Win, Spr, Sum)
- Advanced Topics in Microbial Source Tracking: CEE 374V (Aut, Win, Spr, Sum)
- Advanced Topics in Submarine Groundwater Discharge: CEE 374U (Aut, Win, Spr, Sum)
- Coastal Contaminants: CEE 272 (Aut)
- Environmental Health Microbiology Lab: CEE 274P (Spr)
- Water, Climate, and Health: CEE 375A (Spr)

2015-16

- Advanced Topics in Coastal Pollution: CEE 374T (Aut, Win, Spr, Sum)
- Advanced Topics in Microbial Pollution: CEE 374S (Win, Spr, Sum)
- Advanced Topics in Microbial Source Tracking: CEE 374V (Aut, Win, Spr, Sum)
- Advanced Topics in Submarine Groundwater Discharge: CEE 374U (Aut, Win, Spr, Sum)
- California Coast: Science, Policy and Law: LAW 514 (Spr)
- California Coast: Science, Policy, and Law: CEE 175A, CEE 275A, EARTHSYS 175, EARTHSYS 275 (Spr)
- Coastal Contaminants: CEE 272 (Aut)
- Transport Phenomena: Momentum, heat and mass transport: CEE 271M, CEE 371M (Win)

Publications

PUBLICATIONS

- **Photoinactivation of uncultured, indigenous enterococci.** *Environmental science. Processes & impacts*
McClary, J. S., Ramos, N. A., Boehm, A. B.
2018
- **Role of microbial cell properties on bacterial pathogen and coliphage removal in biochar-modified stormwater biofilters** *ENVIRONMENTAL SCIENCE-WATER RESEARCH & TECHNOLOGY*
Afrooz, A., Pitol, A. K., Kitt, D., Boehm, A. B.
2018; 4 (12): 2160–69
- **Transfer of Enteric Viruses Adenovirus and Cocksackievirus and Bacteriophage MS2 from Liquid to Human Skin** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Pitol, A. K., Bischel, H. N., Boehm, A. B., Kohn, T., Julian, T. R.
2018; 84 (22)
- **Implementation of an automated beach water quality nowcast system at ten California oceanic beaches** *JOURNAL OF ENVIRONMENTAL MANAGEMENT*
Searcy, R. T., Taggart, M., Gold, M., Boehm, A. B.
2018; 223: 633–43
- **Can We Swim Yet? Systematic Review, Meta-Analysis, and Risk Assessment of Aging Sewage in Surface Waters.** *Environmental science & technology*
Boehm, A. B., Graham, K. E., Jennings, W. C.
2018
- **Sunlight-mediated inactivation of health-relevant microorganisms in water: a review of mechanisms and modeling approaches** *ENVIRONMENTAL SCIENCE-PROCESSES & IMPACTS*
Nelson, K. L., Boehm, A. B., Davies-Colley, R. J., Dodd, M. C., Kohn, T., Linden, K. G., Liu, Y., Maraccini, P. A., McNeill, K., Mitch, W. A., Nguyen, T. H., Parker, K. M., Rodriguez, et al
2018; 20 (8): 1089–1122
- **Sewage loading and microbial risk in urban waters of the Great Lakes** *ELEMENTA-SCIENCE OF THE ANTHROPOCENE*
McLellan, S. L., Sauer, E. P., Corsi, S. R., Bootsma, M. J., Boehm, A. B., Spencer, S. K., Borchardt, M. A.
2018; 6
- **Multiple Pathways to Bacterial Load Reduction by Stormwater Best Management Practices: Trade-Offs in Performance, Volume, and Treated Area** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Wolfand, J. M., Bell, C. D., Boehm, A. B., Hogue, T. S., Luthy, R. G.
2018; 52 (11): 6370–79
- **Microbial community structure of sea spray aerosols at three California beaches.** *FEMS microbiology ecology*
Graham, K. E., Prussin, A. J., Marr, L. C., Sassoubre, L. M., Boehm, A. B.
2018; 94 (3)
- **Frequent detection of a human fecal indicator in the urban ocean: environmental drivers and covariation with enterococci** *ENVIRONMENTAL SCIENCE-PROCESSES & IMPACTS*
Jennings, W. C., Chern, E. C., O'Donohue, D., Kellogg, M. G., Boehm, A. B.

2018; 20 (3): 480–92

- **Transcriptional Response of *Staphylococcus aureus* to Sunlight in Oxidic and Anoxic Conditions** *FRONTIERS IN MICROBIOLOGY*
McClary, J. S., Boehm, A. B.
2018; 9: 249
- **A human fecal contamination score for ranking recreational sites using the HF183/BacR287 quantitative real-time PCR method** *WATER RESEARCH*
Cao, Y., Sivaganesan, M., Kelty, C. A., Wang, D., Boehm, A. B., Griffith, J. F., Weisberg, S. B., Shanks, O. C.
2018; 128: 148–56
- **Fecal Contamination on Produce from Wholesale and Retail Food Markets in Dhaka, Bangladesh** *AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE*
Harris, A. R., Islam, M., Unicomb, L., Boehm, A. B., Luby, S., Davis, J., Pickering, A. J.
2018; 98 (1): 287–94
- **Estimating the probability of illness due to swimming in recreational water with a mixture of human- and gull-associated microbial source tracking markers** *ENVIRONMENTAL SCIENCE-PROCESSES & IMPACTS*
Brown, K. I., Graham, K. E., Soller, J. A., Boehm, A. B.
2017; 19 (12): 1528–41
- **Persistence of marine fish environmental DNA and the influence of sunlight** *PLOS ONE*
Andruszkiewicz, E. A., Sassoubre, L. M., Boehm, A. B.
2017; 12 (9): e0185043
- ***Staphylococcus aureus* Strain Newman Photoinactivation and Cellular Response to Sunlight Exposure** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
McClary, J. S., Sassoubre, L. M., Boehm, A. B.
2017; 83 (17)
- **Environmental spread of NDM-1-producing multi-drug resistant bacteria in Dhaka, Bangladesh.** *Applied and environmental microbiology*
Islam, M. A., Islam, M., Hasan, R., Hossain, M. I., Nabi, A., Rahman, M., Goessens, W. H., Endtz, H. P., Boehm, A. B., Faruque, S. M.
2017
- **Effects of submerged zone, media aging, and antecedent dry period on the performance of biochar-amended biofilters in removing fecal indicators and nutrients from natural stormwater** *ECOLOGICAL ENGINEERING*
Afrooz, A. R., Boehm, A. B.
2017; 102: 320-330
- **Biomonitoring of marine vertebrates in Monterey Bay using eDNA metabarcoding** *PLOS ONE*
Andruszkiewicz, E. A., Starks, H. A., Chavez, F. P., Sassoubre, L. M., Block, B. A., Boehm, A. B.
2017; 12 (4)
- **Detecting and enumerating soil-transmitted helminth eggs in soil: New method development and results from field testing in Kenya and Bangladesh.** *PLoS neglected tropical diseases*
Steinbaum, L., Kwong, L. H., Ercumen, A., Negash, M. S., Lovely, A. J., Njenga, S. M., Boehm, A. B., Pickering, A. J., Nelson, K. L.
2017; 11 (4)
- **Occurrence of norovirus in raw sewage - A systematic literature review and meta-analysis.** *Water research*
Eftim, S. E., Hong, T., Soller, J., Boehm, A., Warren, I., Ichida, A., Nappier, S. P.
2017; 111: 366-374
- **Risk-Based Threshold of Gull-Associated Fecal Marker Concentrations for Recreational Water** *ENVIRONMENTAL SCIENCE & TECHNOLOGY LETTERS*
Brown, K. I., Graham, K. E., Boehm, A. B.
2017; 4 (2): 44-48
- **Oceans in Peril: Grand Challenges in Applied Water Quality Research for the 21st Century** *ENVIRONMENTAL ENGINEERING SCIENCE*
Boehm, A. B., Ismail, N. S., Sassoubre, L. M., Andruszkiewicz, E. A.
2017; 34 (1): 3-15
- **Evaluation of filtration and DNA extraction methods for environmental DNA biodiversity assessments across multiple trophic levels** *FRONTIERS IN MARINE SCIENCE*

- Djurhuus, A., Port, J., Closek, C. J., Yamahara, K. M., Romero-Maraccini, O., Walz, K. R., Goldsmith, D. B., Michisaki, R., Boehm, A. B., Breitbart, M., Chavez, F. P.
2017; 314
- **Decay of sewage-sourced microbial source tracking markers and fecal indicator bacteria in marine waters** *WATER RESEARCH*
Mattioli, M. C., Sassoubre, L. M., Russell, T. L., Boehm, A. B.
2017; 108: 106-114
 - **Transport of Fecal Indicators from Beach Sand to the Surf Zone by Recirculating Seawater: Laboratory Experiments and Numerical Modeling** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Brown, K. I., Boehm, A. B.
2016; 50 (23): 12840-12847
 - **Rapid water disinfection using vertically aligned MoS₂ nanofilms and visible light** *NATURE NANOTECHNOLOGY*
Liu, C., Kong, D., Hsu, P., Yuan, H., Lee, H., Liu, Y., Wang, H., Wang, S., Yan, K., Lin, D., Maraccini, P. A., Parker, K. M., Boehm, et al
2016; 11 (12): 1098-1104
 - **Escherichia coli Removal in Biochar-Modified Biofilters: Effects of Biofilm** *PLOS ONE*
Afrooz, A. R., Boehm, A. B.
2016; 11 (12)
 - **Occurrence of Host-Associated Fecal Markers on Child Hands, Household Soil, and Drinking Water in Rural Bangladeshi Households** *ENVIRONMENTAL SCIENCE & TECHNOLOGY LETTERS*
Boehm, A. B., Wang, D., Ercumen, A., Shea, M., Harris, A. R., Shanks, O. C., Kelyt, C., Ahmed, A., Mahmud, Z. H., Arnold, B. F., Chase, C., Kullmann, C., Colford, et al
2016; 3 (11): 393-398
 - **Escherichia coli Reduction by Bivalves in an Impaired River Impacted by Agricultural Land Use.** *Environmental science & technology*
Ismail, N. S., Tommerdahl, J. P., Boehm, A. B., Luthy, R. G.
2016; 50 (20): 11025-11033
 - **Quantification of Environmental DNA (eDNA) Shedding and Decay Rates for Three Marine Fish** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Sassoubre, L. M., Yamahara, K. M., Gardner, L. D., Block, B. A., Boehm, A. B.
2016; 50 (19): 10456-10464
 - **Rapid water disinfection using vertically aligned MoS₂ nanofilms and visible light.** *Nature nanotechnology*
Liu, C., Kong, D., Hsu, P., Yuan, H., Lee, H., Liu, Y., Wang, H., Wang, S., Yan, K., Lin, D., Maraccini, P. A., Parker, K. M., Boehm, et al
2016
 - **Exogenous indirect photoinactivation of bacterial pathogens and indicators in water with natural and synthetic photosensitizers in simulated sunlight with reduced UVB.** *Journal of applied microbiology*
Maraccini, P. A., Wenk, J., Boehm, A. B.
2016; 121 (2): 587-597
 - **Soil-Transmitted Helminth Eggs Are Present in Soil at Multiple Locations within Households in Rural Kenya** *PLOS ONE*
Steinbaum, L., Njenga, S. M., Kihara, J., Boehm, A. B., Davis, J., Null, C., Pickering, A. J.
2016; 11 (6)
 - **Water quality criteria for an acidifying ocean: Challenges and opportunities for improvement** *OCEAN & COASTAL MANAGEMENT*
Weisberg, S. B., Bednarsek, N., Feely, R. A., Chan, F., Boehm, A. B., Sutula, M., Ruesink, J. L., Hales, B., Largier, J. L., Newton, J. A.
2016; 126: 31-41
 - **Photoinactivation of Eight Health-Relevant Bacterial Species: Determining the Importance of the Exogenous Indirect Mechanism** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Maraccini, P. A., Wenk, J., Boehm, A. B.
2016; 50 (10): 5050-5059
 - **Solar Inactivation of Enterococci and Escherichia coli in Natural Waters: Effects of Water Absorbance and Depth** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Maraccini, P. A., Mattioli, M. C., Sassoubre, L. M., Cao, Y., Griffith, J. F., Ervin, J. S., Van De Werfhorst, L. C., Boehm, A. B.
2016; 50 (10): 5068-5076

- **Ruminants Contribute Fecal Contamination to the Urban Household Environment in Dhaka, Bangladesh** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Harris, A. R., Pickering, A. J., Harris, M., Doza, S., Islam, M. S., Unicomb, L., Luby, S., Davis, J., Boehm, A. B.
2016; 50 (9): 4642-4649
- **Absolute Quantification of Enterococcal 23S rRNA Gene Using Digital PCR** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Wang, D., Yamahara, K. M., Cao, Y., Boehm, A. B.
2016; 50 (7): 3399-3408
- **Transport of enterococci and F+ coliphage through the saturated zone of the beach aquifer.** *Journal of water and health*
de Sieyes, N. R., Russell, T. L., Brown, K. I., Mohanty, S. K., Boehm, A. B.
2016; 14 (1): 26-38
- **Effect of weathering on mobilization of biochar particles and bacterial removal in a stormwater biofilter.** *Water research*
Mohanty, S. K., Boehm, A. B.
2015; 85: 208-215
- **Sunlight inactivation of fecal indicator bacteria in open-water unit process treatment wetlands: Modeling endogenous and exogenous inactivation rates** *WATER RESEARCH*
Nguyen, M. T., Jasper, J. T., Boehm, A. B., Nelson, K. L.
2015; 83: 282-292
- **Comparative decay of *Catelicoccus marimalium* and enterococci in beach sand and seawater** *WATER RESEARCH*
Brown, K. I., Boehm, A. B.
2015; 83: 377-384
- **Sunlight inactivation of fecal indicator bacteria in open-water unit process treatment wetlands: Modeling endogenous and exogenous inactivation rates.** *Water research*
Nguyen, M. T., Jasper, J. T., Boehm, A. B., Nelson, K. L.
2015; 83: 282-292
- **Human-Associated Fecal Quantitative Polymerase Chain Reaction Measurements and Simulated Risk of Gastrointestinal Illness in Recreational Waters Contaminated with Raw Sewage** *ENVIRONMENTAL SCIENCE & TECHNOLOGY LETTERS*
Boehm, A. B., Soller, J. A., Shanks, O. C.
2015; 2 (10): 270-275
- **Quantification of Human Norovirus GII on Hands of Mothers with Children Under the Age of Five Years in Bagamoyo, Tanzania.** *The American journal of tropical medicine and hygiene*
Mattioli, M. C., Davis, J., Mrisho, M., Boehm, A. B.
2015; 93 (3): 478-484
- **Simultaneous monitoring of faecal indicators and harmful algae using an in-situ autonomous sensor.** *Letters in applied microbiology*
Yamahara, K. M., Demir-Hilton, E., Preston, C. M., Marin, R., Pargett, D., Roman, B., JENSEN, S., Birch, J. M., Boehm, A. B., Scholin, C. A.
2015; 61 (2): 130-138
- **Ocean Acidification Science Needs for Natural Resource Managers of the North American West Coast** *OCEANOGRAPHY*
Boehm, A. B., Jacobson, M. Z., O'Donnell, M. J., Sutula, M., Wakefield, W. W., Weisberg, S. B., Whiteman, E.
2015; 28 (2): 170-181
- **Growth-dependent photoinactivation kinetics of *Enterococcus faecalis*** *JOURNAL OF APPLIED MICROBIOLOGY*
Maraccini, P. A., Wang, D., McClary, J. S., Boehm, A. B.
2015; 118 (5): 1226-1237
- **Temporal stability of the microbial community in sewage-polluted seawater exposed to natural sunlight cycles and marine microbiota.** *Applied and environmental microbiology*
Sassoubre, L. M., Yamahara, K. M., Boehm, A. B.
2015; 81 (6): 2107-2116
- **Improvement of Urban Lake Water Quality by Removal of *Escherichia coli* through the Action of the Bivalve *Anodonta californiensis*.** *Environmental science & technology*
Ismail, N. S., Dodd, H., Sassoubre, L. M., Horne, A. J., Boehm, A. B., Luthy, R. G.

2015; 49 (3): 1664-1672

- **Hand-to-Mouth Contacts Result in Greater Ingestion of Feces than Dietary Water Consumption in Tanzania: A Quantitative Fecal Exposure Assessment Model.** *Environmental science & technology*
Mattioli, M. C., Davis, J., Boehm, A. B.
2015; 49 (3): 1912-1920
- **Sunny with a chance of gastroenteritis: predicting swimmer risk at california beaches.** *Environmental science & technology*
Thoe, W., Gold, M., Griesbach, A., Grimmer, M., Taggart, M. L., Boehm, A. B.
2015; 49 (1): 423-431
- **Mobilization of Microspheres from a Fractured Soil during Intermittent Infiltration Events** *VADOSE ZONE JOURNAL*
Mohanty, S. K., Bulicek, M. C., Metge, D. W., Harvey, R. W., Ryan, J. N., Boehm, A. B.
2015; 14 (1)
- **Predicting water quality at Santa Monica Beach: Evaluation of five different models for public notification of unsafe swimming conditions** *WATER RESEARCH*
Thoe, W., Gold, M., Griesbach, A., Grimmer, M., Taggart, M. L., Boehm, A. B.
2014; 67: 105-117
- **Human health risk implications of multiple sources of faecal indicator bacteria in a recreational waterbody** *WATER RESEARCH*
Soller, J. A., Schoen, M. E., Varghese, A., Ichida, A. M., Boehm, A. B., Eftim, S., Ashbolt, N. J., Ravenscroft, J. E.
2014; 66: 254-264
- **Escherichia coli Removal in Biochar-Augmented Biofilter: Effect of Infiltration Rate, Initial Bacterial Concentration, Biochar Particle Size, and Presence of Compost** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Mohanty, S. K., Boehm, A. B.
2014; 48 (19): 11535-11542
- **Escherichia coli removal in biochar-augmented biofilter: effect of infiltration rate, initial bacterial concentration, biochar particle size, and presence of compost.** *Environmental science & technology*
Mohanty, S. K., Boehm, A. B.
2014; 48 (19): 11535-11542
- **Static Electricity Powered Copper Oxide Nanowire Microbicidal Electroporation for Water Disinfection** *NANO LETTERS*
Liu, C., Xie, X., Zhao, W., Yao, J., Kong, D., Boehm, A. B., Cui, Y.
2014; 14 (10): 5603-5608
- **Efficacy of biochar to remove Escherichia coli from stormwater under steady and intermittent flow.** *Water research*
Mohanty, S. K., Cantrell, K. B., Nelson, K. L., Boehm, A. B.
2014; 61: 288-296
- **Effect of submarine groundwater discharge on bacterial indicators and swimmer health at Avalon Beach, CA, USA.** *Water research*
Yau, V. M., Schiff, K. C., Arnold, B. F., Griffith, J. F., Gruber, J. S., Wright, C. C., Wade, T. J., Burns, S., Hayes, J. M., Mcgee, C., Gold, M., Cao, Y., Boehm, et al
2014; 59: 23-36
- **Diversity and Transport of Microorganisms in Intertidal Sands of the California Coast** *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*
Boehm, A. B., Yamahara, K. M., Sassoubre, L. M.
2014; 80 (13): 3943-3951
- **Diversity and transport of microorganisms in intertidal sands of the California coast.** *Applied and environmental microbiology*
Boehm, A. B., Yamahara, K. M., Sassoubre, L. M.
2014; 80 (13): 3943-3951
- **Hand bacterial communities vary across two different human populations.** *Microbiology (Reading, England)*
Hospodsky, D., Pickering, A. J., Julian, T. R., Miller, D., Gorthala, S., Boehm, A. B., Peccia, J.
2014; 160: 1144-1152
- **Mechanisms for Photoinactivation of Enterococcus faecalis in Seawater.** *Applied and environmental microbiology*
Sassoubre, L. M., Nelson, K. L., Boehm, A. B.
2014; 80 (9): 2964-?

- **Detection limits and cost comparisons of human- and gull-associated conventional and quantitative PCR assays in artificial and environmental waters.** *Journal of environmental management*
Riedel, T. E., Zimmer-Faust, A. G., Thulsiraj, V., Madi, T., Hanley, K. T., Ebentier, D. L., Byappanahalli, M., Layton, B., Raith, M., Boehm, A. B., Griffith, J. F., Holden, P. A., Shanks, et al
2014; 136: 112-120
- **Impacts of Beach Wrack Removal via Grooming on Surf Zone Water Quality.** *Environmental science & technology*
Russell, T. L., Sassoubre, L. M., Zhou, C., French-Owen, D., Hassaballah, A., Boehm, A. B.
2014; 48 (4): 2203-2211
- **Transcriptional response of *Enterococcus faecalis* to sunlight.** *Journal of photochemistry and photobiology. B, Biology*
Sassoubre, L. M., Ramsey, M. M., Gilmore, M. S., Boehm, A. B.
2014; 130: 349-356
- **Enteric Pathogens in Stored Drinking Water and on Caregiver's Hands in Tanzanian Households with and without Reported Cases of Child Diarrhea** *PLOS ONE*
Mattioli, M. C., Boehm, A. B., Davis, J., Harris, A. R., Mrisho, M., Pickering, A. J.
2014; 9 (1)
- **Enteric pathogens in stored drinking water and on caregiver's hands in Tanzanian households with and without reported cases of child diarrhea.** *PLoS One*
Mattioli, M. C., Boehm, A. B., Davis, J., Harris, A. R., Mrisho, M., Pickering, A. J.
2014; 9: e84939
- **Enteric pathogens in stored drinking water and on caregiver's hands in Tanzanian households with and without reported cases of child diarrhea.** *PLoS one*
Mattioli, M. C., Boehm, A. B., Davis, J., Harris, A. R., Mrisho, M., Pickering, A. J.
2014; 9 (1)
- **New Performance Metrics for Quantitative Polymerase Chain Reaction-Based Microbial Source Tracking Methods** *ENVIRONMENTAL SCIENCE & TECHNOLOGY LETTERS*
Wang, D., Green, H. C., Shanks, O. C., Boehm, A. B.
2014; 1 (1): 20-25
- **New performance metrics for quantitative PCR microbial source tracking methods.** *Environmental Science & Technology Letters*
Wang, D., Green, H., Shanks, O., Boehm, A., B.
2014; 1: 20-25
- **Performance of forty-one microbial source tracking methods: A twenty-seven lab evaluation study.** *Water research*
Boehm, A. B., Van De Werfhorst, L. C., Griffith, J. F., Holden, P. A., Jay, J. A., Shanks, O. C., Wang, D., Weisberg, S. B.
2013; 47 (18): 6812-6828
- **Evaluation of the repeatability and reproducibility of a suite of qPCR-based microbial source tracking methods** *WATER RESEARCH*
Ebentier, D. L., Hanley, K. T., Cao, Y., Badgley, B. D., Boehm, A. B., Ervin, J. S., Goodwin, K. D., Gourmelon, M., Griffith, J. F., Holden, P. A., Kelty, C. A., Lozach, S., Mcgee, et al
2013; 47 (18): 6839-6848
- **Performance of viruses and bacteriophages for fecal source determination in a multi-laboratory, comparative study** *WATER RESEARCH*
Harwood, V. J., Boehm, A. B., Sassoubre, L. M., Vijayavel, K., Stewart, J. R., Fong, T., Caprais, M., Converse, R. R., Diston, D., Ebdon, J., Fuhrman, J. A., Gourmelon, M., Gentry-Shields, et al
2013; 47 (18): 6929-6943
- **Comparison of PCR and quantitative real-time PCR methods for the characterization of ruminant and cattle fecal pollution sources** *WATER RESEARCH*
Raith, M. R., Kelty, C. A., Griffith, J. F., Schriewer, A., Wuertz, S., Mieszkin, S., Gourmelon, M., Reischer, G. H., Farnleitner, A. H., Ervin, J. S., Holden, P. A., Ebentier, D. L., Jay, et al
2013; 47 (18): 6921-6928
- **Multi-laboratory evaluations of the performance of *Catelliboccus marimammalium* PCR assays developed to target gull fecal sources** *WATER RESEARCH*
Sinigalliano, C. D., Ervin, J. S., Van De Werfhorst, L. C., Badgley, B. D., Balleste, E., Bartkowiak, J., Boehm, A. B., Byappanahalli, M., Goodwin, K. D., Gourmelon, M., Griffith, J., Holden, P. A., Jay, et al
2013; 47 (18): 6883-6896

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