Dr. John Griffith

Department Head
Microbiology Department
Southern California Coastal Water Research Project

Education

Ph.D., marine environmental biology, University of Southern California, 2006

B.S., biology, University of Southern California, 1995

B.S., environmental studies, University of Southern California, 1995

Professional Experience

Department Head, Southern California Coastal Water Research Project, Costa Mesa, CA. 2010-present

Microbiologist, Southern California Coastal Water Research Project. Westminster, CA. 2001-2010

Research Assistant, Marine Biology Research Section, University of Southern California. Los Angeles, CA. 2000-2001

Doctoral Fellow, NSF Integrative Graduate Education and Training, Environmental Studies, Policy and Engineering - Sustainable Cities Program, University of Southern California. Los Angeles, CA. 1999-2000

Teaching Assistant, University of Southern California. Los Angeles, CA. 1995-1999

Trainee, USC Sea Grant Program. Los Angeles, CA. 1995-2001

Laboratory Assistant, University of Southern California. Los Angeles CA. 1993-1995

Honors and Awards

US EPA Scientific and Technological Achievement Award 2014
National Science Foundation IGERT Doctoral Fellowship (1998-2000)
LAS Dean's Advisory Board, University of Southern California (1994-1997)
LAS Dean's List, University of Southern California (1994, 1995)
Phi Sigma National Biological Honor Society, Chapter President (1993-1994)
Dean's List, University of California, Irvine (1993)
President's Honor Roll, Fullerton College (1992)
Golden Key National Honor Society

Professional Societies and Certifications

American Society for Microbiology
Association for the Sciences of Limnology and Oceanography
The Oceanographic Society
International Water Association

Journal Articles

Grimm, S.L., J.A. Rothman, W.J. Bradshaw, K. Langlois, J.A. Steele, J.F. Griffith, J.T. Kaufman, K.L. Whiteson. 2026. Deep metatranscriptomic sequencing data of wastewater from Los Angeles, USA, 2023–2024. *Scientific Data* DOI:10.1038/s41597-025-06475-7.

Zhang, Y., Y. Kong, K. Osborn, E. Tsutakawa, C. Beale, E. Moreno, A. Muhammad, A. Sinacori, V. Tong, L. Tran, D. Velazquez, M.C. De Lucca, N. Bui, A. Casillas, M. Chang, A. Ding, S. Jun, J. Kuo, T. Lakhanpal, J. Lin, J. Vuong, Z. Asnani, R. Chowdhry, A. Espinoza, H. Hill, K. McMillan, M. Cheema, J.F. Griffith, J.A. Steele, C. Dickerson, L. Henning, N. Korir, J.A. Jay. 2026. Elevated Antibiotic Resistance in Escherichia coli from Surface Waters Impacted by Concentrated Animal Feeding Operations in California and Michigan. *Water* DOI:10.3390/w18020207.

Steele, J.A., A.G. Zimmer-Faust, T.J. Clerkin, A. Gonzalez-Fernandez, S.A. Lowry, A.D. Blackwood, K. Raygoza, K. Langlois, A.B. Boehm, R.T. Noble, J.F. Griffith, K.C. Schiff. 2025. Survey of pathogens and human fecal markers in stormwater across a highly populated urban region. *Environmental Science: Processes & Impacts* 27:1354-1367.

Lowry, S.A., J.A. Steele, J.F. Griffith, K.C. Schiff, A.B. Boehm. 2025. Simulated gastrointestinal risk from recreational exposure to Southern California stormwater and relationship to human-

associated Bacteroidales marker HF183. *Environmental Science: Processes & Impacts* DOI:10.1039/d4em00577e.

Jimenez, K., Y. Kong, Y. Zhang, D. Ferketic, S.K. Nagori, J. Yang, A.A. Yulo, B. Kramer, O.G. Prado, T. Cason, R. Chowdhry, A. Kemsley, L.M. Espinosa, J.A. Steele, J.F. Griffith, J.A. Jay. 2025. Evaluation of a modified IDEXX method for antimicrobial resistance monitoring of extended Beta-lactamases-producing Escherichia coli in impacted waters near the U.S.-Mexico border. *One Health* 20:100997.

Griffith, J.F., J.A. Steele, A. Gonzalez-Fernandez, K.C. Schiff. 2025. Towards quantifying exfiltration from in situ sanitary sewer pipes. *Frontiers in Environmental Science* DOI:10.3389/fenvs.2024.1458146.

Steele, J.A., A. Gonzalez-Fernandez, J.F. Griffith, D. Ebentier McCargar, S. Wallace, K.C. Schiff. 2025. Extrapolating empirical measurements of wastewater exfiltration from sanitary sewers to estimate watershed-scale fecal pollution loading in urban stormwater runoff. *Frontiers in Environmental Science* DOI:10.3389/fenvs.2024.1458153.

Schiff, K.C., A. Zimmer-Faust, D. Nguyen, J.F. Griffith, J.A. Steele, D.E. McCargar, S. Wallace. 2024. Using HF183 to Estimate Watershed-Wide Annual Loadings of Human Fecal Pollution from Onsite Wastewater Treatment Systems. *Sustainability* 16:9503.

McLellan, S.L., A. Chariton, A. Codello, J.S. McClary-Gutierrez, M.K. Schussman, E.M. Marzinelli, J.M. O'Neil, E.J. Schott, J.L. Bowen, J.H. Vineis, L. Maignien, C. Lemonnier, M. Perennou, K.S. Gibbs, G.J. Zhou, K.M.Y. Leung, M. Kirs, J.F. Griffith, J.A. Steele, S.E. Wearer, A.L. O'Brien, D. Song, S. Liang, J. Li, L. Airoldi, F.P. Mancuso, P.S. Salomon, A.W. Silva-Lima RC Pereira, A.B. Boehm, E.W.X. Lim, S. Wuertz, E. Fernandez, E. Teira, M.L. Liao, Y.W. Dong, P.D. Steinberg. 2024. Universal microbial indicators provide surveillance of sewage contamination in harbours worldwide. *Nature Water* DOI:10.1038/s44221-024-00315-5.

Rothman, J.A., A. Saghir, A.G. Zimmer-Faust, K. Langlois, K. Raygoza, J.A. Steele, J.F. Griffith, K.L. Whiteson. 2024. Longitudinal Sequencing and Variant Detection of SARS-CoV-2 across Southern California Wastewater. *Applied Microbiology* 4:635-649.

Hinds, J.B., T. Garg, S. Hutmacher, A. Nguyen, Z. Zheng, J.F. Griffith, J.A. Steele, A. Gonzalez Fernandez, K.C. Schiff. 2024. Assessing the defecation practices of unsheltered individuals and their contributions to microbial water quality in an arid, urban watershed. *Science of the Total Environment* 920:170708.

Kelly, R.P., D.M. Lodge, K.N. Lee, S. Theroux, A.J. Sepulveda, C.A. Scholin, J.M. Craine, E.A. Allan, K.M. Nichols, K.M. Parsons, K.D. Goodwin, Z. Gold, F.P. Chavez, R.T. Noble, C.L. Abbott, M.R. Baerwald, A.M. Naaum, P.M. Thielen, A.L. Simons, C.L. Jerde, J.J. Duda, M.E. Hunter, J.A. Hagan,

R.S. Meyer, J.A. Steele, M.Y. Stoeckle, H.M. Bik, C.P. Meyer, E.D. Stein, K.E. James, A.C. Thomas, E. Demir-Hilton, M.A. Timmers, J.F. Griffith, M.J. Weise, S.B. Weisberg. 2024. Toward a national eDNA strategy for the United States. *Environmental DNA* DOI:10.1002/edn3.432.

Rothman, J.A., A. Saghir, S. Chung, N. Boyajian, T. Dinh, J. Kim, J. Oval, V. Sharavanan, C. York, A.G. Zimmer-Faust, K. Langlois, J.A. Steele, J.F. Griffith, K.L. Whiteson. 2023. Longitudinal metatranscriptomic sequencing of Southern California wastewater representing 16 million people from August 2020–21 reveals widespread transcription of antibiotic resistance genes. *Journal of Water Research* 329:119421.

Zimmer-Faust, A.G., J.F. Griffith, J.A. Steele, B. Santos, Y. Cao, L. Asato, T. Chiem, S. Choi, A. Diaz, J. Guzman, D. Laak, M. Padilla, J. Quach-Cu, M. Woo, S.B. Weisberg. 2023. Relationship between coliphage and Enterococcus at southern California beaches and implications for beach water quality management. *Journal of Water Research* 230:119383.

Schiff, K.C., J.F. Griffith, J.A. Steele, A.G. Zimmer-Faust. 2023. Dry and Wet Weather Survey for Human Fecal Sources in the San Diego River Watershed. *Water* 15:2239.

Diner, R.E., A.G. Zimmer-Faust, E. Cooksey, S. Allard, S.M. Kodera, E. Kunselman, Y. Garodia, M.P. Verhougstraete, A.E. Allen, J.F. Griffith, J.A. Gilbert. 2023. Host and Water Microbiota Are Differentially Linked to Potential Human Pathogen Accumulation in Oysters. *Applied and Environmental Microbiology* DOI:10.1128/aem.00318-23.

Kim, S., L.C. Kennedy, M.K. Wolfe, C.S. Criddle, D.H. Duong, A. Topol, B.J. White, R.S. Kantor, K.L. Nelson, J.A. Steele, K. Langlois, J.F. Griffith, A.G. Zimmer-Faust, S.L. McLellan, M.K. Schussman, M. Ammerman, K.R. Wigginton, K.M. Bakker, A.B. Boehm. 2022. SARS-CoV-2 RNA is enriched by orders of magnitude in primary settled solids relative to liquid wastewater at publicly owned treatment works. *Environmental Science Water Research and Technology* 8:757-770.

Wade, T.J., B.F. Arnold, K.C. Schiff, J.M. Colford Jr, S.B. Weisberg, J.F. Griffith, A.P. Dufour. 2022. Health risks to children from exposure to fecally-contaminated recreational water. *PLOS One* DOI:10.1371/journal.pone.0266749.

Zimmer-Faust, A.G., J.F. Griffith, J.A. Steele, L. Asato, T. Chiem, S. Choi, A. Diaz, J. Guzman, M. Padilla, J. Quach-Cu, V. Ruiz, B. Santos, M. Woo, S.B. Weisberg. 2022. Assessing cross-laboratory performance for quantifying coliphage using EPA Method 1642. *Journal of Applied Microbiology* DOI:10.1111/jam.15523.

Ahmed, W., S.L. Simpson, P.M. Bertsch, K. Bibby, A. Bivins, L.L. Blackall, S. Bofill-Mas, A. Bosch, J. Brandão, P.M. Choi, M. Ciesielski, E. Donner, N. D'Souza, A.H. Farnleitner, D. Gerrity, R. Gonzalez, J.F. Griffith, P. Gyawali, C.N. Haas, K.A. Hamilton, H.C. Hapuarachchi, V.J. Harwood, R. Haque, G. Jackson, S.J. Khan, W. Khan, M. Kitajima, A. Korajkic, G. La Rosa, B.A. Layton, E. Lipp,

S.L. McLellan, B. McMinn, G. Medema, S. Metcalfe, W.G. Meijer, J.F. Mueller, H. Murphy, C.C. Naughton, R.T. Noble, S. Payyappat, S. Petterson, T. Pitkänen, V.B. Rajal, B. Reyneke, F.A. Roman Jr, J.B. Rose, M. Rusiñol, M.J. Sadowsky, L. Sala-Comorera, Y.X. Setoh, S.P. Sherchan, K. Sirikanchana, W. Smith, J.A. Steele, R. Sabburg, E.M. Symonds, P. Thai, K.V. Thomas, J. Tynan, S. Toze, J. Thompson, A.S. Whiteley, J.C. Wong, D. Sano, S. Wuertz, I. Xagoraraki, Q. Zhang, A.G. Zimmer-Faust, O.C. Shanks. 2022. Minimizing errors in RT-PCR detection and quantification of SARS-CoV-2 RNA for wastewater surveillance. *Science of the Total Environment* DOI:10.1016/j.scitotenv.2021.149877.

Rothman, J.A., T.B. Loveless, J. Kapcia III, E.D. Adams, J.A. Steele, A.G. Zimmer-Faust, D. Wanless, M.L. Griffith, L. Mao, J. Chokry, J.F. Griffith, K.L. Whiteson, K. Langlois. 2021. RNA Viromics of Southern California Wastewater and Detection of SARS-CoV-2 Single-Nucleotide Variants. *Applied and Environmental Microbiology* 87:e01448-21.

McClary-Gutierrez, J.S., M.C.M. Mattioli, P. Marcenac, A.I. Silverman, A.B. Boehm, K. Bibby, M. Balliet, F.L. de los Reyes III, D. Gerrity, J.F. Griffith, P.A. Holden, D. Katehis, G. Kester, N. LaCross, E.K. Lipp, J. Meiman, R.T. Noble, D. Brossard, S.L. McLellan. 2021. SARS-CoV-2 Wastewater Surveillance for Public Health Action. *Emerging Infectious Diseases* 27:e210753.

Zimmer-Faust, A.G., J.A. Steele, X. Xiong, C. Staley, M.L. Griffith, M.J. Sadowsky, M. Diaz, J.F. Griffith. 2021. A Combined Digital PCR and Next Generation DNA-Sequencing Based Approach for Tracking Nearshore Pollutant Dynamics Along the Southwest United States/Mexico Border. *Frontiers in Marine Science* DOI:10.3389/fmicb.2021.674214.

Diner, R.E., D. Kaul, A. Rabines, H. Zheng, J.A. Steele, J.F. Griffith, A.E. Allen. 2021. Pathogenic Vibrio Species Are Associated with Distinct Environmental Niches and Planktonic Taxa in Southern California (USA) Aquatic Microbiomes. *mSystems* DOI:10.1128/mSystems.00571-21.

Crain, C., K. Kezer, S. Steele, J. Owiti, S. Rao, M. Victorio, B. Austin, A. Volner, W. Draper, J.F. Griffith, J.A. Steele, M. Seifert. 2021. Application of ddPCR for detection of Enterococcus spp. in coastal water quality monitoring. *Journal of Microbiological Methods* DOI:10.1016/j.mimet.2021.106206.

Rothman, J.A., T.B. Loveless, M.L. Griffith, J.A. Steele, J.F. Griffith, K.L. Whiteson. 2020. Metagenomics of Wastewater Influent from Southern California Wastewater Treatment Facilities in the Era of COVID-19. *Microbiology Resource Announcements* 9:e00907-20.

Zimmer-Faust, A.G., J.A. Steele, J.F. Griffith, K.C. Schiff. 2020. The challenges of microbial source tracking at urban beaches for Quantitative Microbial Risk Assessment (QMRA). *Marine Pollution Bulletin* DOI:10.1016/j.marpolbul.2020.111546.

Gomez-Alvarez, V., N.J. Ashbolt, J.F. Griffith, J.S. Domingo, J. Lu. 2019. Whole-Genome Sequencing

of Four Campylobacter Strains Isolated from Gull Excreta Collected from Hobie Beach (Oxnard, CA, USA). *Microbiology Resource Announcements* 8:1-3.

Steele, J.A., A.D. Blackwood, J.F. Griffith, R.T. Noble, K.C. Schiff. 2018. Quantification of pathogens and markers of fecal contamination during storm events along popular surfing beaches in San Diego, California. *Water Research* 136:137-149.

Arnold, B.F., K.C. Schiff, A. Ercumen, J. Benjamin-Chung, J.A. Steele, J.F. Griffith, S.J. Steinberg, P.D. Smith, C.D. McGee, R. Wilson, C. Nelsen, S.B. Weisberg, J.M. Colford Jr. 2017. Acute Illness Among Surfers After Exposure to Seawater in Dry- and Wet-Weather Conditions. *American Journal of Epidemiology* 186:866-875.

Cao, Y., M.R. Raith, P.D. Smith, J.F. Griffith, S.B. Weisberg, A. Schriewer, A. Sheldon, C. Crompton, G.G. Amenu, J. Gregory, J. Guzman, K.D. Goodwin, L. Othman, M. Manasjan, S. Choi, S. Rapoport, S. Steele, T. Nguyen, X. Yu. 2017. Regional Assessment of Human Fecal Contamination in Southern California Coastal Drainages. *International Journal of Environmental Research and Public Health* 14:874.

Zimmer-Faust, A.G., V. Thulsiraj, C. Marambio-Jones, Y. Cao, J.F. Griffith, P.A. Holden, J.A. Jay. 2017. Effect of freshwater sediment characteristics on the persistence of fecal indicator bacteria and genetic markers within a Southern California watershed. *Water Research* 119:1-11.

Benjamin-Chung, J., B.F. Arnold, T.J. Wade, K.C. Schiff, J.F. Griffith, A.P. Dufour, S.B. Weisberg, J.M. Colford Jr. 2017. Coliphages and gastrointestinal illness in recreational waters: pooled analysis of six coastal beach cohorts. *Epidemiology* 28:644-652.

Soller, J.A., M. Schoen, J.A. Steele, J.F. Griffith, K.C. Schiff. 2017. Incidence of gastrointestinal illness following wet weather recreational exposures: Harmonization of quantitative microbial risk assessment with an epidemiologic investigation of surfers. *Water Research* 121:280-289.

Cao, Y., M. Sivaganesan, C.A. Kelty, D. Wang, A. Boehm, J.F. Griffith, S.B. Weisberg, O.C. Shanks. 2017. A human fecal contamination score for ranking recreational sites using the HF183/BacR287 quantitative real-time PCR method. *Water Research* 128:148-156.

Haugland, R.A., S. Siefring, M. Varma, K.H. Oshima, M. Sivaganesan, Y. Cao, M.R. Raith, J.F. Griffith, S.B. Weisberg, R.T. Noble, A.D. Blackwood, J. Kinzelman, T. Anan'eva, R.N. Bushon, E.A. Stelzer, V.J. Harwood, K.V. Gordon, C. Sinigalliano. 2016. Multi-laboratory survey of qPCR enterococci analysis method performance in U.S. coastal and inland surface waters. *Journal of Microbiological Methods* 123:114-125.

Maraccini, P.A., M.C.M. Mattioli, L.M. Sassoubre, Y. Cao, J.F. Griffith, J.S. Ervin, L.C. Van De Werfhorst, A.B. Boehm. 2016. Solar Inactivation of Enterococci and Escherichia coli in Natural

Waters: Effects of Water Absorbance and Depth. *Environmental Science and Technology* 50:5068-5076.

Cao, Y., M.R. Raith, J.F. Griffith. 2016. A Duplex Digital PCR Assay for Simultaneous Quantification of the Enterococcus spp. and the Human Fecal-associated HF183 Marker in Waters. *Journal of Visualized Experiments* 109:e53611.

Arnold, B.F., T.J. Wade, J. Benjamin-Chung, K.C. Schiff, J.F. Griffith, A.P. Dufour, S.B. Weisberg, J.M. Colford Jr. 2016. Acute Gastroenteritis and Recreational Water: Highest Burden Among Young US Children. *American Journal of Public Health* 9:1690-1697.

Griffith, J.F., S.B. Weisberg, B.F. Arnold, Y. Cao, K.C. Schiff, J.M. Colford Jr. 2016. Epidemiologic evaluation of multiple alternate microbial water quality monitoring indicators at three California beaches. *Water Research* 94:371-381.

Wu, J., Y. Cao, B. Young, Y. Yuen, S. Jiang, D. Melendez, J.F. Griffith, J.R. Stewart. 2016. Decay of Coliphages in Sewage-Contaminated Freshwater: Uncertainty and Seasonal Effects. *Environmental Science and Technology* 50:11593-11601.

Griffith, J.F. 2015. Looking Ahead: New Development in Beach Water Quality Monitoring and Bacterial Source Identification. *Urban Coast* 5:180-184.

Cao, Y., M.R. Raith, J.F. Griffith. 2015. Droplet digital PCR for simultaneous quantification of general and human-associated fecal indicators for water quality assessment. *Water Research* 70:337-349.

Yau, V.M., K.C. Schiff, B.F. Arnold, J.F. Griffith, J.S. Gruber, C.C. Wright, T.J. Wade, S. Burns, J.M. Hayes, C. McGee, M. Gold, Y. Cao, A.B. Boehm, S.B. Weisberg, J.M. Colford Jr. 2014. Effect of submarine groundwater discharge on bacterial indicators and swimmer health at Avalon Beach, CA, USA. *Water Research* 59:23-36.

Riedel, T.E., A.G. Zimmer-Faust, V. Thulsiraj, T. Madi, K.T. Hanley, D.L. Ebentier, M. Byappanahalli, B. Layton, M.R. Raith, A.B. Boehm, J.F. Griffith, P.A. Holden, O.C. Shanks, S.B. Weisberg, J.A. Jay. 2014. Detection limits and cost comparisons of human-and gull-associated conventional and quantitative PCR assays in artificial and environmental waters. *Journal of Environmental Management* 136:112-120.

Sinigalliano, C.D., J. Ervin, L.C. Van De Werfhorst, B.D. Badgley, E. Balleste, J. Bartkowiak, A.B. Boehm, M. Byappanahalli, K.D. Goodwin, M. Gourmelon, J.F. Griffith, P.A. Holden, J.A. Jay, B.A. Layton, C. Lee, J. Lee, W.G. Meijer, R. Noble, M.R. Raith, H. Ryu, M.J. Sadowsky, A. Schriewer, D. Wang, D. Wanless, R.L. Whitman, S. Wuertz, J.W. Santo Domingo. 2013. Multi-laboratory evaluations of the performance of Catellicoccus marimammalium PCR assays developed to target

gull fecal sources. *Water Research* 47:6883-6896.

Bourlat, S.J., A. Borja, J. Gilbert, M.I. Taylor, N. Davies, S.B. Weisberg, J.F. Griffith, T. Lettieri, D. Field, J. Benzie, F.O. Glockner, N. Rodriguez-Ezpeleta, D.P. Faith, T.P. Bean, M. Obst. 2013. Genomics in marine monitoring: New opportunities for assessing marine health status. *Marine Pollution Bulletin* 74:19-31.

Cao, Y., L.C. Van De Werfhorst, E.A. Scott, M.R. Raith, P.A. Holden, J.F. Griffith. 2013. Bacteroidales terminal restriction fragment length polymorphism (TRFLP) for fecal source differentiation in comparison to and in combination with universal bacteria TRFLP. *Water Research* 47:6944-6955.

Ferguson, D.M., J.F. Griffith, C.D. McGee, S.B. Weisberg, C. Hagedorn. 2013. Comparison of Enterococcus species diversity in marine water and wastewater using enterolert and EPA method 1600. *Journal of Environmental and Public Health* 2013:11-16.

Raith, M.R., C.A. Kelty, J.F. Griffith, A. Schriewer, S. Wuertz, S. Mieszkin, M. Gourmelon, G.H. Reischer, A.H. Farnleitner, J.S. Ervin, P.A. Holden, D.L. Ebentier, J.A. Jay, D. Wang, A.B. Boehm, T. Gim Aw, J.B. Rose, E. Balleste, W.G. Meijer, M. Sivaganesan, O.C. Shanks. 2013. Comparison of PCR and quantitative real-time PCR methods for the characterization of ruminant and cattle fecal pollution sources. *Water Research* 47:6921-6928.

Cao, Y., L.C. Van De Werfhorst, E.A. Dubinsky, B.D. Badgley, M.J. Sadowsky, G.L. Andersen, J.F. Griffith, P.A. Holden. 2013. Evaluation of molecular community analysis methods for discerning fecal sources and human waste. *Water Research* 47:6862-6872.

Harwood, V.J., A.B. Boehm, L.M. Sassoubre, K. Vijayavel, J.R. Stewart, T.-T. Fong, M.P. Caprais, R.R. Converse, D. Diston, J. Ebdon, J.A. Fuhrman, M. Gourmelon, J. Gentry-Shields, J.F. Griffith, D.R. Kashian, R.T. Noble, H. Taylor, M. Wicki. 2013. Performance of viruses and bacteriophages for fecal source determination in a multi-laboratory, comparative study. *Water Research* 47:6929-6943.

Ebentier, D.L., K.T. Hanley, Y. Cao, B.D. Badgley, A.B. Boehm, J.S. Ervin, K.D. Goodwin, M. Gourmelon, J.F. Griffith, P.A. Holden, C.A. Kelty, S. Lozach, C.M.c.G.e.e. , L.A. Peed, M.R. Raith, H. Ryu, M.J. Sadowsky, E.A. Scott, J.S. Domingo, A. Schriewer, C.D. Sinigalliano, O.C. Shanks, L.C. Van De Werfhorst, D. Wang, S. Wuertz, J.A. Jay. 2013. Evaluation of the repeatability and reproducibility of a suite of qPCR-based microbial source tracking methods. *Water Research* 47:6839-6848.

Layton, B.A., Y. Cao, D.L. Ebentier, K. Hanley, E. Balleste, J. Brandao, M. Byappanahalli, R. Converse, A. Farnleitner, J. Gentry-Shields, M.L. Gidley, M. Gourmelon, C. Soo Lee, J. Lee, S. Lozach, T. Madi, W.G. Meijer, R. Noble, L. Peed, G.H. Reischer, R. Rodrigues, J.B. Rose, A.

Schriewer, C. Sinigalliano, S. Srinivasan, J. Stewart, L.C. Van De Werfhorst, D. Wang, R. Whitman, S. Wuertz, J. Jay, P.A. Holden, A.B. Boehm, O. Shanks, J.F. Griffith. 2013. Performance of human fecal anaerobe-associated PCR-based assays in a multi-laboratory method evaluation study. *Water Research* 47:6897-6908.

Schriewer, A., K.D. Goodwin, C.D. Sinigalliano, A.M. Cox, D. Wanless, J. Bartkowiak, D.L. Ebentier, K.T. Hanley, J. Ervin, L.A. Deering, O.C. Shanks, L.A. Peed, W.G. Meijer, J.F. Griffith, J. SantoDomingo, J.A. Jay, P.A. Holden, S. Wuertz. 2013. Performance evaluation of canine-associated Bacteroidales assays in a multi-laboratory comparison study. *Water Research* 47:6909-6920.

Boehm, A.B., L.C. Van De Werfhorst, J.F. Griffith, P.A. Holden, J.A. Jay, O.C. Shanks, D. Wanga, S.B. Weisberg. 2013. Performance of forty-one microbial source tracking methods: A twenty-seven lab evaluation study. *Water Research* 47:6812-6828.

Stewart, J.R., A.B. Boehm, E.A. Dubinsky, T.-T. Fong, K.D. Goodwin, J.F. Griffith, R.T. Noble, O.C. Shanks, K. Vijayavel, S.B. Weisberg. 2013. Recommendations following a multi-laboratory comparison of microbial source tracking methods. *Water Research* 47:6829-6838.

Raith, M.R., D.L. Ebentier, Y. Cao, J.F. Griffith, S.B. Weisberg. 2013. Factors affecting the relationship between quantitative polymerase chain reaction (qPCR) and culture-based enumeration of Enterococcus in environmental waters. *Journal of Applied Microbiology* 116:737-746.

Cao, Y., C. Hagedorn, O.C. Shanks, D. Wang, J. Ervin, J.F. Griffith, B.A. Layton, C.D. McGee, T.E. Riedel, S.B. Weisberg. 2013. Towards establishing a human fecal contamination index in microbial source tracking. *International Journal of Chemical and Environmental Engineering Systems* 4:46-58.

Cao, Y., M. Sivaganesan, J. Kinzelman, A.D. Blackwood, R.T. Noble, R.A. Haugland, J.F. Griffith, S.B. Weisberg. 2013. Effect of platform, reference material, and quantification model on enumeration of Enterococcus by quantitative PCR methods. *Water Research* 47:233-241.

Arnold, B.F., K.C. Schiff, J.F. Griffith, J.S. Gruber, V. Yau, C.C. Wright, T.J. Wade, S. Burns, J.M. Hayes, C. McGee, M. Gold, Y. Cao, S.B. Weisberg, J.M. Colford Jr. 2013. Swimmer illness associated with marine water exposure and water quality indicators: Impact of widely used assumptions. *Epidemiology* 24:845-853.

Shanks, O.C., M. Sivaganesan, L. Peed, C.A. Kelty, A.D. Blackwood, M.R. Greene, R.T. Noble, R.N. Bushon, E.A. Stelzer, J. Kinzelman, T. Anan'eva, C. Sinigalliano, D. Wanless, J.F. Griffith, Y. Cao, S.B. Weisberg, V.J. Harwood, C. Staley, K.H. Oshima, M. Varma, R.A. Haugland. 2012. Interlaboratory comparison of real-time PCR protocols for quantification of general fecal indicator

bacteria. *Environmental Science and Technology* 46:945-953.

Colford Jr, J.M., K.C. Schiff, J.F. Griffith, V. Yau, B.F. Arnold, C.C. Wright, J.S. Gruber, T.J. Wade, S. Burns, J. Hayes, C. McGee, M. Gold, Y. Cao, R.T. Noble, R. Haugland, S.B. Weisberg. 2012. Using rapid indicators for Enterococcus to assess the risk of illness after exposure to urban runoff contaminated marine water. *Water Research* 46:2176-2186.

Ryu, H., J.F. Griffith, I.U.H. Khan, S. Hill, T.A. Edge, C. Toledo-Hernandez, J. Gonzalez-Nieves, J. Santo Domingo. 2012. Comparison of gull feces-specific assays targeting the 16S rRNA genes of Catellicoccus marimammalium and Streptococcus spp. *Applied and Environmental Microbiology* 78:1909-1916.

Goodwin, K.D., M. McNay, Y. Cao, D. Ebentier, M. Madison, J.F. Griffith. 2012. A multi-beach study of Staphylococcus aureus, MRSA, and enterococci in seawater and beach sand. *Water Research* 46:4195-4207.

McQuaig, S., J.F. Griffith, V.J. Harwood. 2012. Association of fecal indicator bacteria with human viruses and microbial source tracking markers at coastal beaches impacted by nonpoint source pollution. *Applied and Environmental Microbiology* 78:6423-6432.

Converse, R.R., J.F. Griffith, R.T. Noble, R.A. Haugland, K.C. Schiff, S.B. Weisberg. 2012. Correlation between quantitative polymerase chain reaction and culture-based methods for measuring Enterococcus over various temporal scales and three California marine beaches. *Applied and Environmental Microbiology* 78:1237-1242.

Cao, Y., J.F. Griffith, S. Dorevitch, S.B. Weisberg. 2012. Effectiveness of qPCR permutations, internal controls and dilution as means for minimizing the impact of inhibition while measuring Enterococcus in environmental waters. *Journal of Applied Microbiology* 113:66-75.

Lu, J., H. Ryu, J.W. Santo Domingo, J.F. Griffith, N. Ashbolt. 2011. Molecular detection of Campylobacter spp. in California gull (Larus californicus) excreta. *Applied and Environmental Microbiology* 77:5034-5039.

Gregory, J.B., L.F. Webster, J.F. Griffith, J.R. Stewart. 2011. Improved detection and quantitation of norovirus from water. *Journal of Virological Methods* 172:38-45.

Griffith, J.F., S.B. Weisberg. 2011. Challenges in implementing new technology for beach water quality monitoring: Lessons from a California demonstration project. *Marine Technology Society Journal* 45:65-73.

Cao, Y., C.D. McGee, J.F. Griffith, S.B. Weisberg. 2011. Method repeatability for measuring Enterococcus in southern California beach sands. *Letters in Applied Microbiology* 53:656-659.

Griffith, J.F., K.C. Schiff, G.S. Lyon, J.A. Fuhrman. 2010. Microbiological water quality at non-human influenced reference beaches in southern California during wet weather. *Marine Pollution Bulletin* 60:500-508.

Halliday, E., J.F. Griffith, R.J. Gast. 2010. Use of an exogenous plasmid standard and quantitative PCR to monitor spatial and temporal distribution of Enterococcus spp. in beach sands. *Limnology and Oceanography: Methods* 8:146-154.

Lee, C.M., J.F. Griffith, W. Kaiser, J.A. Jay. 2010. Covalently-linked immunomagnetic separation/adenosine triphosphate technique (Cov-IMS/ATP) enables rapid, in-field detection and quantification of Escherichia coli and Enterococcus spp. in freshwater and marine environments. *Journal of Applied Microbiology* 109:324-333.

Hamilton, M.J., A.Z. Hadi, J.F. Griffith, S. Ishii, M.J. Sadowsky. 2010. Large scale analysis of virulence genes in Escherichia coli strains isolated from Avalon Bay, CA. *Water Research* 44:5463-5473.

Johnston, C., J.A. Ufnar, J.F. Griffith, J.A. Gooch, J.R. Stewart. 2010. A real-time qPCR assay for the detection of the nifH gene of Methanobrevibater smithii, a potential indicator of sewage pollution. *Journal of Applied Microbiology* 109:1946-1956.

Noble, R.T., A.D. Blackwood, J.F. Griffith, C.D. McGee, S.B. Weisberg. 2010. Comparison of rapid quantitative PCR-based and conventional culture-based methods for enumeration of Enterococcus spp. and Escherichia coli in recreational waters. *Applied and Environmental Microbiology* 76:7437-7443.

Boehm, A.B., J.F. Griffith, C.D. McGee, T.A. Edge, H.M. Solo-Gabriele, R. Whitman, Y. Cao, M. Getrich, J.A. Jay, D. Ferguson, K.D. Goodwin, C.M. Lee, M. Madison, S.B. Weisberg. 2009. Fecal indicator bacteria enumeration in beach sand: A comparison study of FIB extraction methods in medium to coarse sands. *Journal of Applied Microbiology* 107:1740-1750.

Converse, R.R., A.D. Blackwood, M. Kirs, J.F. Griffith, R.T. Noble. 2009. Rapid qPCR-based assay for fecal Bacteroides spp. as a tool for assessing fecal contamination in recreational waters. *Water Research* 43:4828-4837.

Mika, K.B., G. Imamura, C. Chang, V. Conway, G. Fernandez, J.F. Griffith, R.A. Kampalath, C.M. Lee, C.-C. Lin, R. Moreno, S. Thompson, R.L. Whitman, J.A. Jay. 2009. Pilot- and bench-scale testing of faecal indicator bacteria survival in marine beach sand near point sources. *Journal of Apllied Microbiology* 107:72-84.

Griffith, J.F., Y. Cao, C.D. McGee, S.B. Weisberg. 2009. Evaluation of rapid methods and novel indicators for assessing microbiological beach water quality. *Water Research* 43:4900-4907.

Cao, Y., J.F. Griffith, S.B. Weisberg. 2009. Evaluation of optical brightener photodecay characteristics for detection of human fecal contamination. *Water Research* 43:2273-2279.

Colford Jr, J.M., T.J. Wade, K.C. Schiff, C.C. Wright, J.F. Griffith, S.K. Sandhu, S. Burns, M. Sobsey, G. Lovelace, S.B. Weisberg. 2007. Water quality indicators and the risk of illness at beaches with nonpoint sources of fecal contamination. *Epidemiology* 18:27-35.

Noble, R.T., J.F. Griffith, A.D. Blackwood, J.A. Fuhrman, J.B. Gregory, X. Hernandez, X. Liang, A.A. Bera, K.C. Schiff. 2006. Multitiered approach using quantitative PCR to track sources of fecal pollution affecting Santa Monica Bay, California. *Applied and Environmental Microbiology* 72:1604-1612.

Griffith, J.F., L.A. Aumand, I.M. Lee, C.D. McGEE, L.L. Othman, K.J. Ritter, K.O. Walker, S.B. Weisberg. 2006. Comparison and verification of bacterial water quality indicator measurement methods using ambient coastal water samples. *Environmental Monitoring and Assessment* 116:335-344.

Griffith, J.F., S.B. Weisberg, C.D. McGee. 2003. Evaluation of microbial source tracking methods using mixed fecal sources in aqueous test samples. *Journal of Water and Health* 1.4:141-151.

Field, K.G., E.C. Chern, L.K. Dick, J. Fuhrman, J.F. Griffith, P.A. Holden, M.G. LaMontagne, M.G. LaMontagne, J. Le, B. Olson, M.T. Simonich. 2003. A comparative study of culture-independent library-independent genotypic methods of fecal source tracking. *Journal of Water and Health* 1.4:181-194.

Book Chapters

Cao, Y., M.R. Raith, J.F. Griffith. 2018. Testing of General and Human-Associated Fecal Contamination in Waters. in: G. Karlin-Neumann, F. Bizouarn (eds.), *Digital PCR: Methods and Protocols* pp. 127-140. Humana Press. New York, NY.

Cao, Y., J.F. Griffith, S.B. Weisberg. 2016. The Next-Generation PCR-Based Quantification Method for Ambient Waters: Digital PCR. in: S.J. Bourlat (ed.), *Marine Genomics: Methods and Protocols* pp. 113-130. Springer. New York, NY.

Weisberg, S.B., R.T. Noble, J.F. Griffith. 2007. Microbial Indicators of Marine Recreational Water Quality. in: C.J. Hurst, R.L. Crawford, A.L. Mills, J.L. Garland, L.D. Stetzenbach, D.A. Lipson (eds.), *Manual of Environmental Microbiology* pp. 280-289. ASM Press. Washington, D.C..

Technical Reports

Schiff, K.C., J.F. Griffith, J.A. Steele, A. Gonzalez-Fernandez. 2024. Summary of Technical Research: Quantifying Sources of Human Fecal Pollution in the Lower San Diego River Watershed. Technical Report 1380. Southern California Coastal Water Research Project. Costa Mesa, CA.

Zimmer-Faust, A.G., J.F. Griffith, J. Freshwater, J. Peng, S. Goong, S.B. Weisberg. 2022. Relationships between indicators and pathogens in shellfish and water in Newport Bay, CA. Technical Report 1193. Southern California Coastal Water Research Project. Costa Mesa, CA.

Zimmer-Faust, A.G., J.F. Griffith, S.B. Weisberg. 2021. Quantification of Sources of Fecal Pollution at Mule Creek. Technical Report 1186. Southern California Coastal Water Research Project. Costa Mesa, CA.

Steele, J.A., D. Ebentier, A.G. Zimmer-Faust, J.F. Griffith, K.C. Schiff. 2019. Los Coches Creek Microbial Source Tracking Study. Technical Report 1087. Southern California Coastal Water Research Project. Costa Mesa, CA.

Schiff, K.C., J.F. Griffith, J.A. Steele, A.G. Zimmer-Faust, J.A. Soller. 2019. Inner Cabrillo Beach Microbial Source Tracking and Quantitative Microbial Risk Assessment (QMRA). Technical Report 1068. Southern California Coastal Water Research Project. Costa Mesa, CA.

Cao, Y., G.L. Andersen, A.A. Boehm, P. Holden, J.A. Jay, J.F. Griffith. 2017. Determination of DNA-based Fecal Marker Aging Characteristics for Use in Quantitative Microbial Source Tracking. Technical Report 978. Southern California Coastal Water Research Project. Costa Mesa, CA.

Cao, Y., M.R. Raith, P.D. Smith, J.F. Griffith, S.B. Weisberg, A. Schriewer, A. Sheldon, C. Crompton, G.G. Amenu, J. Gregory, J. Guzman, K.D. Goodwin, L. Othman, M. Manasjan, S. Choi, S. Rapaport, S. Steele, T. Nguyen, X. Yu. 2017. Southern California Bight 2013 Regional Monitoring Program: Volume IX. Shoreline Microbiology. Technical Report 1005. Southern California Coastal Water Research Project. Costa Mesa, CA.

Steele, J.A., J.F. Griffith, R. Noble, K.C. Schiff. 2017. Tracking Human Fecal Sources in an Urban Watershed During Wet Weather. Technical Report 1002. Southern California Coastal Water Research Project. Costa Mesa, CA.

Schiff, K.C., J.F. Griffith, J.A. Steele, B. Arnold, A. Ercumen, J. Benjamin-Chung, J.M. Colford Jr, J. Soller, R. Wilson, C. McGee. 2016. The Surfer Health Study: A Three-Year Study Examining Illness Rates Associated with Surfing During Wet Weather. Technical Report 943. Southern California Coastal Water Research Project Authority. Costa Mesa, CA.

Tiefenthaler, L.L., M. Sutula, J.F. Griffith, M.R. Raith. 2016. Microbiological Water Quality at

Reference Beaches and an Adjoining Estuary in Southern California during a Prolonged Drought. Technical Report 936. Southern California Coastal Water Research Project Authority. Costa Mesa, CA.

Layton, B.A., M.R. Raith, J.F. Griffith. 2015. Use of dye tracers and qPCR to identify human fecal contamination at Doheny State Beach, Dana Point, CA. Technical Report 860. Southern California Coastal Water Research Project Authority. Costa Mesa, CA.

Tiefenthaler, L.L., M. Sutula, Y. Cao, J.F. Griffith, M.R. Raith, C. Beck, R. Christoph, J. Shrake. 2015. Wet and Dry Weather Natural Background Concentrations of Fecal Indicator Bacteria in San Diego, Orange, and Ventura County, California Streams. Technical Report 862. Southern California Coastal Water Research Project. Costa Mesa, CA.

Tiefenthaler, L.L., M. Sutula, Y. Cao, J.F. Griffith, M.R. Raith, C. Beck, R. Christoph, J. Shrake. 2015. Wet and Dry Weather Natural Background Concentrations of Fecal Indicator Bacteria in San Diego, Orange, and Ventura County, California Streams (Appendix A). Technical Report 862.A. Southern California Coastal Water Research Project. Costa Mesa, CA.

Tiefenthaler, L.L., M. Sutula, Y. Cao, J.F. Griffith, M.R. Raith, C. Beck, R. Christoph, J. Shrake. 2015. Wet and Dry Weather Natural Background Concentrations of Fecal Indicator Bacteria in San Diego, Orange, and Ventura County, California Streams (Appendix B). Technical Report 862.B. Southern California Coastal Water Research Project. Costa Mesa, CA.

Tiefenthaler, L.L., M. Sutula, Y. Cao, J.F. Griffith, M.R. Raith, C. Beck, R. Christoph, J. Shrake. 2015. Wet and Dry Weather Natural Background Concentrations of Fecal Indicator Bacteria in San Diego, Orange, and Ventura County, California Streams (Appendix C). Technical Report 862.C. Southern California Coastal Water Research Project. Costa Mesa, CA.

Tiefenthaler, L.L., M. Sutula, Y. Cao, J.F. Griffith, M.R. Raith, C. Beck, R. Christoph, J. Shrake. 2015. Wet and Dry Weather Natural Background Concentrations of Fecal Indicator Bacteria in San Diego, Orange, and Ventura County, California Streams (Appendix D). Technical Report 862.D. Southern California Coastal Water Research Project. Costa Mesa, CA.

Griffith, J.F., B.A. Layton, A.B. Boehm, P.A. Holden, J.A. Jay, C. Hagedorn, C.D. McGee, S.B. Weisberg. 2013. The California Microbial Source Identification Manual: A Tiered Approach to Identifying Fecal Pollution Sources to Beaches. Technical Report 804. Southern California Coastal Water Research Project. Costa Mesa, CA.

Griffith, J.F., K.C. Schiff, S.B. Weisberg, C. McGee, C. Clifton. 2007. Southern California Bight 2003 Regional Monitoring Program: VI. Shoreline Microbiology. Technical Report 526. Southern California Coastal Water Research Project. Costa Mesa, CA.

Griffith, J.F., D. Moore, C. McGee, S.B. Weisberg. 2007. Beta testing of rapid methods for measuring beach water quality. Technical Report 506. Southern California Coastal Water Research Project. Costa Mesa, CA.

Griffith, J.F., K.C. Schiff, G.S. Lyon. 2006. Microbiological water quality at non-human impacted reference beaches in southern California during wet weather. Technical Report 495. Southern California Coastal Water Research Project. Westminster, CA.

Griffith, J.F., S.B. Weisberg. 2006. Evaluation of Rapid Microbiological Methods for Measuring Recreational Water Quality. Technical Report 485. Southern California Coastal Water Research Project. Westminster, CA.

Noble, R.T., J.F. Griffith, A.D. Blackwood, J.A. Fuhrman, J.B. Gregory, X. Hernandez, X. Liang, A.A. Bera, K.C. Schiff. 2005. Multi-tiered approach using quantitative polymerase chain reaction for tracking sources of fecal pollution to Santa Monica Bay, California. Technical Report 446. Southern California Coastal Water Research Project. Westminster, CA.

Colford Jr, J.M., T.J. Wade, K.C. Schiff, C. Wright, J.F. Griffith, S.K. Sandhu, S.B. Weisberg. 2005. Recreational water contact and illness in Mission Bay, California. Technical Report 449. Southern California Coastal Water Research Project. Westminster, CA.

Colford Jr, J.M., T.J. Wade, K.C. Schiff, C. Wright, J.F. Griffith, S.K. Sandhu, S.B. Weisberg. 2005. Recreational water contact and illness in Mission Bay, California (Appendices 1-3). Technical Report 449.1-3. Southern California Coastal Water Research Project. Westminster, CA.

Colford Jr, J.M., T.J. Wade, K.C. Schiff, C. Wright, J.F. Griffith, S.K. Sandhu, S.B. Weisberg. 2005. Recreational water contact and illness in Mission Bay, California (Appendices 4-7). Technical Report 449.4-7. Southern California Coastal Water Research Project. Westminster, CA.

Schiff, K.C., J.F. Griffith, G. Lyon. 2005. Microbiological water quality at reference beaches in southern California during wet weather. Technical Report 448. Southern California Coastal Water Research Project. Westminster, CA.

Bernstein, B., J.F. Griffith, S.B. Weisberg. 2002. Microbiological source tracking workshop: Workgroup findings and recommendations. Technical Report 363. Southern California Coastal Water Research Project. Westminster, CA.

Annual Report Articles

Harwood, V.J., A.B. Boehm, L.M. Sassoubre, K. Vijayavel, J.R. Stewart, T.T. Fong, M.P. Caprais, R.R. Converse, D. Diston, J. Ebdon, J.A. Fuhrman, M. Gourmelon, J. Gentry- Shields, J.F. Griffith, D.R. Kashian, R.T. Noble, H. Taylor, M. Wicki. 2013. Performance of viruses and bacteriophages

for fecal source determination in a multi-laboratory, comparative study.

Bourlat, S.J., A. Borja, J. Gilbert, M.I. Taylor, N. Davies, S.B. Weisberg, J.F. Griffith, T. Lettieri, D. Field, J. Benzie, F.O. Glockner, N. Rodriguez-Ezpeleta, D.P. Faith, T.P. Bean, M. Obst. 2013. Genomics in marine monitoring: New opportunities for assessing marine health status.

Arnold, B.F., K.C. Schiff, J.F. Griffith, J.S. Gruber, V. Yau, C.C. Wright, T.J. Wade, S. Burns, J.M. Hayes, C. McGee, M. Gold, Y. Cao, S.B. Weisberg, J.M. Colford Jr. 2013. Swimmer illness associated with marine water exposure and water quality indicators: Impact of widely used assumptions.

Cao, Y., L.C. Van De Werfhorst, E.A. Scott, M.R. Raith, P.A. Holden, J.F. Griffith. 2013. Bacteroidales terminal restriction fragment length polymorphism (TRFLP) for fecal source differentiation in comparison to and in combination with universal bacteria TRFLP.

Raith, M.R., C.A. Kelty, J.F. Griffith, A. Schriewer, S. Wuertz, S. Mieszkin, M. Gourmelon, G.H. Reischer, A.H. Farnleitner, J.S. Ervin, P.A. Holden, D.L. Ebentier, J.A. Jay, D. Wang, A.B. Boehm, T.G. Aw, J.B. Rose, E. Balleste, W.G. Meijer, M. Sivaganesan, O.C. Shanks. 2013. Comparison of PCR and quantitative real-time PCR methods for the characterization of ruminant and cattle fecal pollution sources.

Cao, Y., L.C. Van De Werfhorst, E.A. Dubinsky, B.D. Badgley, M.J. Sadowsky, G.L. Andersen, J.F. Griffith, P.A. Holden. 2013. Evaluation of molecular community analysis methods for discerning fecal sources and human waste.

Ebentier, D.L., K.T. Hanley, Y. Cao, B.D. Badgley, A.B. Boehm, J.S. Ervin, K.D. Goodwin, M. Gourmelon, J.F. Griffith, P.A. Holden, C.A. Kelty, S. Lozach, C. McGee, L.A. Peed, M.R. Raith, H. Ryu, M.J. Sadowsky, E.A. Scott, J. Santo Domingo, A. Schriewer, C.D. Sinigalliano, O.C. Shanks, L.C. Van De Werfhorst, D. Wang, S. Wuertz, J.A. Jay. 2013. Evaluation of the repeatability and reproducibility of a suite of qPCR-based microbial source tracking methods.

Schriewer, A., K.D. Goodwin, C.D. Sinigalliano, A.M. Cox, D. Wanless, J. Bartkowiak, D.L. Ebentier, K.T. Hanley, J. Ervin, L.A. Deering, O.C. Shanks, L.A. Peed, W.G. Meijer, J.F. Griffith, J. SantoDomingo, J.A. Jay, P.A. Holden, S. Wuertz. 2013. Performance evaluation of canine-associated Bacteroidales assays in a multi-laboratory comparison study.

Love, D.C., R.A. Rodriguez, C.D. Gibbons, J.F. Griffith, Q. Yu, J. Stewart, M.D. Sobsey. 2013. Human viruses and viral indicators in marine water at two beaches in southern California, USA.

Boehm, A.B., L.C. Van De Werfhorst, J.F. Griffith, P.A. Holden, J.A. Jay, O.C. Shanks, D. Wang, S.B. Weisberg. 2013. Performance of forty-three microbial source tracking methods: A twenty-seven laboratory evaluation study.

Stewart, J.R., A.B. Boehm, E.A. Dubinsky, T.T. Fong, K.D. Goodwin, J.F. Griffith, R.T. Noble, O.C. Shanks, K. Vijayavel, S.B. Weisberg. 2013. Recommendations following a multi-laboratory comparison of microbial source tracking methods.

Cao, Y., C. Hagedorn, O.C. Shanks, D. Wang, J. Ervin, J.F. Griffith, B.A. Layton, C.D. McGee, T.E. Riedel, S.B. Weisberg. 2013. Towards establishing a human fecal contamination index for microbial source tracking.

Shanks, O.C., M. Sivaganesan, L.i.n.d.s.a.y. Peed, C.A. Kelty, A.D. Blackwood, M.R. Greene, R.T. Noble, R.N. Bushon, E.A. Stelzer, J. Kinzelman, T. Anan'eva, C. Sinigalliano, D. Wanless, J.F. Griffith, Y. Cao, S.B. Weisberg, V.J. Harwood, C. Staley, K.H. Oshima, M. Varma, R.A. Haugland. 2012. Inter-laboratory comparison of real-time PCR protocols for quantification of general fecal indicator bacteria.

Ryu, H., J.F. Griffith, I.U.H. Khan, S. Hill, T.A. Edge, C. Toledo-Hernandez, J. Gonzalez-Nieves, J. Santo Domingo. 2012. Comparison of gull feces-specific assays targeting the 16S rRNA gene of Catellicoccus marimammalium and Streptococcus spp.

Ryu, H., M. Henson, M. Elk, C. Toledo-Hernandez, J.F. Griffith, D. Blackwood, R. Noble, M. Gourmelon, S. Glassmeyer, J. Santo Domingo. 2012. Development of quantitative PCR assays targeting 16S rRNA gene of Enterococcus spp. and their application to the identification of Enterococcus species in environmental samples.

Goodwin, K.D., M. McNay, Y. Cao, D. Ebentier, M. Madison, J.F. Griffith. 2012. A multi-beach study of Staphylococcus aureus, MRSA, and enterococci in seawater and beach sand.

McQuaig, S., J.F. Griffith, V.J. Harwood. 2012. The association of fecal indicator bacteria with human viruses and microbial source tracking markers at coastal beaches impacted by nonpoint source pollution.

Ebentier, D.L., M.R. Raith, Y. Cao, J.F. Griffith, S.B. Weisberg. 2012. Factors affecting the relationship between qPCR and culture-based enumeration of Enterococcus.

Cao, Y., J.F. Griffith, S. Dorevitch, S.B. Weisberg. 2012. Effectiveness of qPCR permutations, internal controls and dilution as means for minimizing the impact of inhibition while measuring Enterococcus in environmental waters.

Cao, Y., M. Sivaganesan, J. Kinzelman, A.D. Blackwood, R.T. Noble, R.A. Haugland, J.F. Griffith, S.B. Weisberg. 2012. Effect of platform, reference material, and quantification model on enumeration of Enterococcus by quantitative PCR methods.

Lu, J., H. Ryu, J.S. Domingo, J.F. Griffith, N. Ashbolt. 2011. Molecular detection of Campylobacter spp. in California Gull (Larus Californicus) excreta.

Griffith, J.F., S.B. Weisberg. 2011. Challenges in implementing new technology for beach water quality monitoring: Lessons from a California demonstration project.

Converse, R.R., J.F. Griffith, R.T. Noble, R.A. Haugland, K.C. Schiff, S.B. Weisberg. 2011. Correlation between quantitative polymerase chain reaction and culture-based methods for measuring Enterococcus over various temporal scales and three California marine beaches.

Cao, Y., C.D. McGee, J.F. Griffith, S.B. Weisberg. 2011. Method repeatability for measuring Enterococcus in southern California beach sands.

Mika, K.B., G. Imamura, C. Chang, V. Conway, G. Fernandez, J.F. Griffith, R.A. Kampalath, a.n.d. CM Lee, C.-C. Lin, R. Moreno, S. Thompson, R.L. Whitman, J.A. Jay. 2010. Pilot- and bench-scale testing of fecal indicator bacteria survival in marine beach sand near point sources.

Halliday, E., J.F. Griffith, R.J. Gast. 2010. Use of an exogenous plasmid standard and quantitative PCR to monitor spatial and temporal distribution of Enterococcus spp. in beach sands.

Lee, C.M., J.F. Griffith, W. Kaiser, J.A. Jay. 2010. Covalently-linked immunomagnetic separation/adenosine triphosphate technique (Cov-IMS/ATP) enables rapid, in-field detection and quantification of Escherichia coli and Enterococcus spp. in freshwater and marine environments.

Hamilton, M.J., A.Z. Hadi, J.F. Griffith, M.J. Sadowsky. 2010. Large scale analysis of virulence genes in Escherichia coli strains isolated from Avalon Bay, CA.

Johnston, C., J.A. Unfar, J.F. Griffith, J.A. Gooch, J.R. Stewart. 2010. A real-time qPCR assay for the detection of the nifH gene of Methanobrevibater smithii, a potential indicator of sewage pollution.

Gregory, J.B., L.F. Webster, J.F. Griffith, J.R. Stewart. 2010. Improved detection and quantification of norovirus from water.

Ferguson, D.M., J.F. Griffith, C.D. McGee, S.B. Weisberg. 2010. Comparison of Enterococcus species selectivity using Enterolert and EPA Method 1600.

Converse, R.R., A.D. Blackwood, M. Kirs, R.T. Noble, J.F. Griffith. 2009. Rapid QPCR-based assay for fecal Bacteroides spp. as a tool for assessing fecal contamination in recreational waters.

Boehm, A.B., J.F. Griffith, C.D. McGee, T.A. Edge, H.M. Solo-Gabriele, R. Whitman, Y. Cao, M. Getrich, J.A. Jay, D. Ferguson, K.D. Goodwin, C.M. Lee, M. Madison, S.B. Weisberg. 2009. Fecal indicator bacteria (FIB) enumeration in beach sand: A comparison study of FIB extraction methods in medium to coarse sands.

Griffith, J.F., Y. Cao, C.D. McGee, S.B. Weisberg. 2009. Evaluation of rapid methods and novel indicators for assessing microbiological beach water quality.

Noble, R.T., A.D. Blackwood, J.F. Griffith, C.D. McGee, S.B. Weisberg. 2009. Comparison of rapid QPCR-based and culture-based methods for enumeration of Enterococcus sp. and Escherichia coli in recreational waters.

Cao, Y., J.F. Griffith, S.B. Weisberg. 2008. Evaluation of optical brightener photodecay characteristics for the detection of human fecal contamination.

Griffith, J.F., K.C. Schiff, S.B. Weisberg, C.D. McGee, C. Clifton. 2007. Efficacy of shallow water sampling to determine exposure of surfers to indicator bacteria at marine beaches.

Griffith, J.F., K.C. Schiff, G.S. Lyon. 2006. Microbiological water quality at non-human impacted reference beaches in southern California during wet weather.

Colford Jr, J.M., T.J. Wade, K.C. Schiff, C.C. Wright, J.F. Griffith, S.K. Sandhu, S. Burns, J. Hayes, M. Sobsey, G. Lovelace, S.B. Weisberg. 2006. Water quality indicators and the risk of illness in non-point source impacted recreational waters.

Noble, R.T., J.F. Griffith, A.D. Blackwood, J.A. Fuhrman, J.B. Gregory, X. Hernandez, X. Liang, A.A. Bera, K.C. Schiff. 2006. Multi-tiered approach using quantitative polymerase chain reaction for tracking sources of fecal pollution to Santa Monica Bay, California.

Griffith, J.F., S.B. Weisberg, C.D. McGee. 2004. Evaluation of microbial source tracking methods using mixed fecal sources in aqueous test samples.

Griffith, J.F., S.B. Weisberg, C.D. McGee. 2004. Evaluation of new, rapid microbiological methods for measuring recreational water quality.

Griffith, J.F., L.A. Aumand, I.M. Lee, C.D. McGee, L.L. Othman, K.J. Ritter, K.O. Walker, S.B. Weisberg. 2004. Comparison and verification of bacterial water quality indicator measurement methods using ambient coastal water samples.