

# Dr. John Griffith

Department Head

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Southern California Coastal Water Research Project

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## 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

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. Xagorarakis, 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.

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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.

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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.

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- 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.
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associated Bacteroidales assays in a multi-laboratory comparison study. *Water Research* 47:6909-6920.

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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.

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