

Curriculum Vitae

GEORGE D. DI GIOVANNI

Professor, Environmental and Occupational Health Sciences
Center for Infectious Diseases
Department of Epidemiology, Human Genetics and Environmental Sciences
University of Texas Health Science Center at Houston, School of Public Health
El Paso Campus
1101 N. Campbell CH 412, El Paso, Texas 79902
Phone: 915-747-8509 Fax: 915-747-8512
E-mail: george.d.digiovanni@uth.tmc.edu

Date of Appointment with UTSPH: October 1, 2011

Dr. George D. Di Giovanni is Professor, University of Texas Health Science Center at Houston, School of Public Health, El Paso Campus. His research program specializes in the detection, infectivity determination, and molecular analysis of waterborne pathogens. Current research includes the quantitative molecular detection of protozoan, viral and bacterial pathogens; assessment of the efficacy of ultraviolet light disinfection of drinking water and wastewater; microbiological safety of reclaimed water; and microbial source tracking to determine the human and animal sources of fecal pollution of water supplies. He has received United States and European patents for methods and kits for the molecular detection of the parasite *Cryptosporidium* in water. He has served as Technical Laboratory Auditor for Environmental Protection Agency Method 1623, Detection of *Cryptosporidium* and *Giardia* in Water, in support of the Safe Drinking Water Act. His research has been funded by the Water Research Foundation (formerly the American Water Works Association Research Foundation); Environmental Protection Agency; United Kingdom Drinking Water Inspectorate; Drinking Water Quality Regulator for Scotland; Ecowise Environmental (Australia); Texas Department of Agriculture; U.S. Department of Agriculture; U.S. Bureau of Reclamation; Texas State Soil and Water Conservation Board; Texas Commission on Environmental Quality; Brazos River Authority; and the Paso del Norte Health Foundation – Center for Border Health Research. He and his research team are recipients of the Texas Environmental Excellence Award, Texas' highest environmental honor.

Dr. Di Giovanni has received over 25 grants and awards from federal, state and local agencies. Funding to his research program totals \$4.9 million, with total project funding of over \$9.3 million. He has published a total of 53 peer-reviewed journal articles and reports, 4 editor-reviewed journal articles, 118 proceedings and abstracts, and 11 book chapters. He has given 79 invited lectures, including 18 at international meetings.

EDUCATION

Doctor of Philosophy, Microbiology and Immunology. The University of Arizona, December 1994. Cumulative GPA 3.9. Dissertation title: Adaptation of Soil Microbial Communities Following Exposure to 2,4-Dichlorophenoxyacetic Acid and Introduction of *tfd* Genes.

Bachelor of Science (*Cum Laude*), Microbiology and Immunology. Minor in Chemistry. The University of Arizona, December 1990.

PROFESSIONAL EXPERIENCE

Professor, Environmental and Occupational Health Sciences, Center for Infectious Diseases, October 2011 – present. University of Texas Health Science Center at Houston School of Public Health, El Paso Campus; Department of Epidemiology, Human Genetics and Environmental Science.

Graduate Faculty, 2016 – present. University of Texas at El Paso, Department of Public Health Sciences; Type III membership which allows chairing of UTEP student MPH thesis committees.

Professor and Faculty Fellow, Environmental Microbiology, September 2009 – September 2011. Texas AgriLife Research Center at El Paso, Texas AgriLife Research, Texas A&M University System and Department of Plant Pathology and Microbiology.

Professor, Environmental Microbiology, September 2008 – September 2009. Texas AgriLife Research Center at El Paso, Texas AgriLife Research, Texas A&M University System and Department of Plant Pathology and Microbiology.

Adjunct Professor, 2008 – 2013 (Associate Professor, 2007–2008). University of Texas at El Paso, Doctoral Program in Environmental Science and Engineering.

Adjunct Professor, 2008 – 2010 (Associate Professor, 2005 – 2008). University of Texas School of Public Health, Division of Environmental and Occupational Health Sciences.

Associate Professor, Environmental Microbiology, September 2001 – August 2008. Texas AgriLife Research Center at El Paso, Texas AgriLife Research (formerly Texas Agricultural Experiment Station), Texas A&M University System and Department of Plant Pathology and Microbiology.

Senior Environmental Scientist, 1999 – 2001. American Water Works Service Co., Inc., Belleville, Illinois. Principal Investigator, “*Cryptosporidium parvum* Infectivity Assay” Project and Molecular Biology Group Team Leader. Supervised project-related staff and coordinated molecular research for the company. Co-PI or Co-Investigator on several other related projects.

Environmental Scientist, 1997 – 1999. American Water Works Service Co., Inc., Belleville, Illinois. Principal Investigator, “*Cryptosporidium parvum* Infectivity Assay” Project and Co-PI or Co-Investigator on related projects. Supervised project-related staff (1 to 4 analysts).

National Research Council Research Associate, 1995 – 1997. US Environmental Protection Agency, National Health and Environmental Effects Research Laboratory, Western Ecology Division, Terrestrial Plant Ecology Branch, Corvallis, Oregon. NRC Advisor: Dr. Lidia Watrud. Principal Investigator: “Use of Community-Level Metabolic and Molecular Analyses for the Evaluation of Plant-Associated Microbial Diversity.” New methods were developed to detect and evaluate changes in rhizosphere microbial diversity in response to various abiotic and biotic stressors, including transgenic variants of alfalfa, plant genus and land management practices.

HONORS AND RECOGNITIONS

- Chair of Faculty Council, University of Texas Health Science Center at Houston School of Public Health, 2015 – present
- Texas Environmental Excellence Award (Texas’ highest environmental honor), member of the Buck Creek Partnership Team for control of nonpoint source pollution. Presented by the Texas Commission on Environmental Quality, May 1, 2013, Austin, Texas
- US Environmental Protection Agency Section 319 Nonpoint Source Program Success Story – Buck Creek Watershed Protection Plan Team Member, August 29, 2012
- University of Arizona Alumni Professional Achievement Award, 2011
- Awarded Faculty Fellow distinction, Texas AgriLife Research, Texas A&M University System, 2009
- Appointed Member of the Texas A&M University Graduate Faculty, 2008 – 2011
- Texas Environmental Excellence Award (Texas’ highest environmental honor) for bacterial source tracking research. Presented by the Texas Commission on Environmental Quality and Governor Rick Perry, May 2, 2007, Austin, Texas
- USDA CSREES National Water Program Award for Outstanding Integrated Activities for Water Resources, Rio Grande Basin Initiative Team Member, 2007. First USDA national teamwork award for integrated water resources, ranked number 1 out of 37 nominations
- Vice Chancellor’s Award in Excellence, Rio Grande Basin Initiative Team Member, Texas A&M University Agriculture Program, 2006
- Candidate for Chair Elect, American Society for Microbiology Division Q, Applied and Environmental Microbiology, 2003 – 2004 term

- Arizona Branch of the American Society for Microbiology award for outstanding presentation, 1992 and 1993

PUBLICATIONS

My research emphasis is environmental microbiology. Since 1997 my research has focused on waterborne pathogens, with particular expertise on the parasites *Cryptosporidium* and *Giardia*. In addition, I also study waterborne viruses and bacteria. My experience in environmental microbiology extends deeper with publications in the areas of rhizosphere microbial ecology, biotechnology risk assessment of transgenic crops, and bioremediation. The unifying theme of my research is the combined use of culture-based assays with novel molecular tools to detect, quantify, and characterize microorganisms in the environment.

Summary of Publications and Scholarly Work

Type	Since joining UTSPH	Career
Peer-Reviewed Journal Articles	8	34
Editor-Reviewed Journal Articles	2	4
Published Proceedings and Abstracts	23	118
Book Chapters	5	11
Peer-Reviewed Reports	7	19
Non Peer-Reviewed Reports		9
Popular Press, News Articles, Fact Sheets	2	32
Patents		3
Patent Disclosures		2

In Review/Preparation (Not included in Summary of Publications Table)

Di Giovanni, G. D., A. M. Johnson and P. R. Rochelle. Genotyping of single *Cryptosporidium* spp. cell culture foci of infection. *In preparation*.

Di Giovanni, G. D., K. Barrella**, N. F. Garcia*, G. D. Sturbaum and R. M. Hoffman. Genotyping of single *Cryptosporidium* oocysts recovered from water regulatory slides. *In preparation*.

Truesdale, J. A.** and **G. D. Di Giovanni**. Characterization and assessment of a *Bacteroidales* PCR assay for the detection of feral hog fecal pollution. *In preparation*.

Casarez, E. A.** and **G. D. Di Giovanni**. Exotic animals, ordinary *E. coli*: Implications for bacterial source tracking. *In preparation*.

Sifuentes, L. Y.*, K. D. Mena and **G. D. Di Giovanni**. Host cell capture-quantitative sequence detection of potentially infectious viruses. *In preparation*.

Peer-Reviewed Journal Articles

Please note that in my field it is customary for the Principal Investigator or graduate student advisor to be the last author. Therefore, the first and last authors are typically considered the lead authors of the work, with the remaining authors generally in order of contribution. The names of graduate students and research assistants that worked under my supervision appear with an asterisk (*), while postdoctoral researchers are noted with two asterisks (**).

1. Zhou, P., **G. D. Di Giovanni**, J. S. Meschke and M. C. Dodd. 2014. Enhanced inactivation of *Cryptosporidium parvum* oocysts during solar photolysis of free available chlorine. *Environmental Science & Technology Letters* 1:453-458.
2. Lalancette, C.*, I. Papineau, P. Payment, S. Dorner, P. Servais, B. Barbeau, **G. D. Di Giovanni** and M. Prévost. 2014. Changes in *E. coli* to *Cryptosporidium* ratios for various fecal pollution sources and drinking water intakes. *Water Research* 55:150-161.
3. Flores Márgez, J. P., E. Jaramillo López, N. W. Assadian, **G. D. Di Giovanni**, F. Pérez Casio and M. K. Shukla. 2013. Heavy metals in oat and soil treated with lime-stabilized biosolids and reclaimed wastewater. *Journal of Environmental & Analytical Toxicology* S6:1-9.
4. Olivas Enriquez, E.*, J. P. Flores Márgez, **G. D. Di Giovanni**, B. Corral Diaz and P. Osuna Avila. 2013. Contaminación fecal en agua potable del Valle de Juárez (Fecal indicators in drinking water at Juarez Valley). *Terra Latinoamericana* 31:135-143.
5. Rochelle, P. A., A. M. Johnson, R. De Leon and **G. D. Di Giovanni**. 2012. Assessing the risk of infectious *Cryptosporidium* in drinking water. *Journal of the American Water Works Association* 104:E325-E336.
6. Reynolds, K. A., **G. D. Di Giovanni** and K. D. Mena. 2012. *Cryptosporidium* and *Giardia* zoonoses: minimizing health risks from food animal production. *Centre for Agricultural Bioscience (CAB) Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources* 7:1-7.

7. Lalancette, C. *, M. Généreux, J. Mailly, P. Servais, C. Côté, A. Michaud, **G. D. Di Giovanni** and M. Prévost. 2012. Total and infectious *Cryptosporidium* oocyst and total *Giardia* cyst concentrations from distinct agricultural and urban contamination sources in Eastern Canada. Journal of Water and Health 10:147-160.
8. Johnson, A. M., **G. D. Di Giovanni** and P. R. Rochelle. 2012. Comparison of assays for sensitive and reproducible detection of cell culture-infectious *Cryptosporidium parvum* and *Cryptosporidium hominis* in drinking water. Applied and Environmental Microbiology 78:156-162.
9. Ajeegah, G. A., T. Njine, C. F. Bilong Bilong, S. M. Foto, M. Wouafo Ndayo, N. M., **G. D. Di Giovanni** and H. Smith. 2010. Seasonal distribution of enteric opportunistic *Cryptosporidium* spp. oocysts and *Giardia* spp. cysts in a tropical water basin, Cameroon. WATER 2:44-57.
10. Besner, M-C, R. Broséus, J. Lavoie, **G. D. Di Giovanni**, P. Payment, M. Prévost. 2010. Pressure monitoring and characterization of intrusion pathways at the site of the Payment drinking water epidemiological studies. Environmental Science & Technology 44:269-277.
11. Lalancette, C.*, **G. D. Di Giovanni**, M. Prévost. 2010. Dual direct detection of total and infectious *Cryptosporidium* oocysts on cell culture with immunofluorescent assay (3D-CC-IFA): A method to improve risk analysis. Applied and Environmental Microbiology 76:566-577.
12. Lamendella, R., J. W. Santo Domingo, A. C. Yannarell, S. Ghosh, **G. D. Di Giovanni**, R. I. Mackie, D. B. Oerther. 2009. Evaluation of swine-specific PCR assays used for fecal source tracking and analysis of molecular diversity of *Bacteroidales*-swine specific populations. Applied and Environmental Microbiology 75:5507-5513.
13. Sifuentes, L. Y.* and **G. D. Di Giovanni**. Aged HCT-8 cell monolayers support *Cryptosporidium parvum* infection. 2007. Applied and Environmental Microbiology 73:7548-7551.
14. Casarez, E. A.**, S. D. Pillai and **G. D. Di Giovanni**. 2007. Genotype diversity of *Escherichia coli* isolates in natural waters determined by PFGE and ERIC-PCR. Water Research 41:3643-3648.
15. Casarez, E. A.**, S. D. Pillai, J. Mott, M. Vargas, K. Dean and **G. D. Di Giovanni**. 2007. Direct comparison of four bacterial source tracking methods and a novel use of composite data sets. Journal of Applied Microbiology 103(2):350-364.
16. **Di Giovanni, G. D.**, W. Q. Betancourt**, J. Hernandez*, N. W. Assadian, J. P. Flores Margez and E. Jaramillo Lopez. 2006. Investigation of potential anthroozoonotic transmission of cryptosporidiosis and giardiasis through agricultural use of reclaimed wastewater. International Journal of Environmental Health Research 16(6):405-418.
17. Watrud, L. S., S. Misra, L. Gedamu, T. Shiroyama, S. Maggard and **G. D. Di Giovanni**. 2006. Ecological risk assessment of alfalfa (*Medicago varia* L.) genetically engineered to express a human metallothionein (*hMT*) gene. Water, Air and Soil Pollution 176: 329–349.

18. Assadian, N. W., **G. D. Di Giovanni**, J. Enciso, J. Iglesias and W. Lindemann. 2005. The transport of waterborne solutes and bacteriophage in soil subirrigated with a wastewater blend. Agriculture, Ecosystems and Environment 111:279-291.
19. **Di Giovanni, G. D.** and M. W. LeChevallier. 2005. Quantitative PCR assessment of *Cryptosporidium parvum* cell culture infection. Applied and Environmental Microbiology 71(3):1495-1500.
20. Aboytes, A., **G. D. Di Giovanni**, F. A. Abrams, C. Rheinecker, W. McElroy, N. Shaw and M. W. LeChevallier. 2004. Detection of infectious *Cryptosporidium* in filtered drinking water. Journal of the American Water Works Association 96:88-98.
21. LeChevallier, M. W., **G. D. Di Giovanni**, J. L. Clancy, Z. Bukhari, S. Bukhari, J. S. Rosen, J. Sobrinho and M. M. Frey. 2003. Comparison of Method 1623 and cell culture-PCR for detection of *Cryptosporidium* spp. in source waters. Applied and Environmental Microbiology 69:971-979.
22. Watrud, L. S., S. Maggard, T. Shiroyama, C. G. Coleman, M. G. Johnson, K. K. Donegan, **G. D. Di Giovanni**, L. A. Porteous and E. H. Lee. 2003. Bracken (*Pteridium aquilinum* L.) frond biomass and rhizosphere microbial community characteristics are correlated to edaphic factors. Plant and Soil 249:359-371.
23. Donegan, K. K., L. S. Watrud, R. J. Seidler, S. P. Maggard, T. Shiroyama, L. A. Porteous and **G. Di Giovanni**. 2001. Soil and litter organisms in Pacific Northwest forests under different management practices. Applied Soil Ecology 18:159-175.
24. Spinner, M. L. and **G. D. Di Giovanni**. 2001. Detection and identification of mammalian reoviruses in surface water by combined cell culture and RT-PCR. Applied and Environmental Microbiology 67:3016-3020.
25. Arora, H., **G. D. Di Giovanni** and M. W. LeChevallier. 2001. Spent filter backwash water: Occurrence of contaminants and treatment strategies. Journal of American Water Works Association 93:100-112.
26. LeChevallier, M. W., M. Abbaszadegan and **G. D. Di Giovanni**. 2000. Detection of infectious *Cryptosporidium parvum* oocysts in environmental water samples using an integrated cell culture-PCR (CC-PCR) system. Water, Air, & Soil Pollution 123(1-4):53-65.
27. **Di Giovanni, G. D.**, F. H. Hashemi, N. Shaw, M. LeChevallier and M. Abbaszadegan. 1999. Detection of infectious *Cryptosporidium parvum* oocysts in surface and filter backwash water samples using immunomagnetic separation (IMS) and integrated cell culture-PCR (CC-PCR). Applied and Environmental Microbiology 65:3427-3432.

28. **Di Giovanni, G. D.**, L. S. Watrud, R. J. Seidler and F. Widmer. 1999. Comparison of parental and transgenic alfalfa rhizosphere bacterial communities using Biolog GN metabolic fingerprinting and enterobacterial repetitive intergenic consensus sequence-PCR (ERIC-PCR). Microbial Ecology 37:129-139.
29. **Di Giovanni, G. D.**, L. S. Watrud, R. J. Seidler and F. Widmer. 1999. Fingerprinting of mixed bacterial strains and Biolog Gram negative (GN) substrate communities by enterobacterial repetitive intergenic consensus sequence-PCR (ERIC-PCR). Current Microbiology 38:217-223.
30. Donegan, K. K., R. J. Seidler, J. D. Doyle, L. A. Porteous, **G. D. Di Giovanni**, F. Widmer and L. S. Watrud. 1999. A field study with genetically engineered alfalfa inoculated with recombinant *Sinorhizobium meliloti*: effects on the soil ecosystem. Journal of Applied Ecology 36:920-936.
31. Widmer, F., R. J. Seidler, P. M. Gillevet, L. S. Watrud and **G. D. Di Giovanni**. 1998. A highly selective PCR protocol for detecting 16S rRNA genes of the genus *Pseudomonas (sensu stricto)* in environmental samples. Applied and Environmental Microbiology 64:2545-2553.
32. **Di Giovanni, G. D.**, J. W. Neilson, I. L. Pepper and N. A. Sinclair. 1996. Gene transfer of *Alcaligenes eutrophus* JMP134 plasmid pJP4 to indigenous soil recipients. Applied and Environmental Microbiology 62:2521-2526.
33. **Di Giovanni, G. D.**, J. W. Neilson, I. L. Pepper and N. A. Sinclair. 1996. Plasmid diversity within a 2,4-dichlorophenoxyacetic acid-degrading *Variovorax paradoxus* population isolated from a contaminated soil. Journal of Environmental Science and Health A31:963-976.
34. Neilson, J. W., K. L. Josephson, I. L. Pepper, R. G. Arnold, **G. D. Di Giovanni** and N. A. Sinclair. 1994. Frequency of horizontal gene transfer of a large catabolic plasmid (pJP4) in soil. Applied and Environmental Microbiology 60:4053-4058.

Editor-Reviewed Journal Articles

1. Rochelle, P. A., P. T. Klonicki, **G. D. Di Giovanni**, V. R. Hill, Y. Akagi and E. N. Villegas. 2015. Conference report: The 6th international symposium on waterborne pathogens. Journal of the American Water Works Association 107(10): 24-32.
2. **Di Giovanni, G. D.**, P. A. Rochelle, R. M. Hoffman and Y. Akagi. 2015. Maximizing the value of your LT2 *Cryptosporidium* monitoring. Journal of the American Water Works Association 107(2):73-75.
3. Flores-Margez, J. P., A. Ramírez López, B. Corral Díaz, A. E. Olivas, A. Salazar Monrreal, R. Hurtado Jiménez, G. M. Lizárraga Bustamante and **G. D. Di Giovanni**. 2010. Microbial pathogens in tap water at rural communities of North México. Ciencia en la Frontera: Revista de Ciencia y Tecnología de la UACJ 7:77-82.

4. **Di Giovanni, G. D.** 2004. Drought may concentrate pathogens in surface water. Southwest Hydrology 3: 24-26.

Technical Reports

For the majority of the funding agencies that support my research, project final reports are major project deliverables. This is especially true for the Texas State Soil and Water Conservation Board (TSSWCB) and Texas Commission on Environmental Quality (TCEQ) reports. These agencies use the project final reports to develop watershed total maximum daily loads (TMDLs) and best management practices for Texas waterbodies. The reports are crucial to the successful communication with stakeholders, and also present project results that must be able to pass legal scrutiny. Similarly, the Water Research Foundation (WRF; formerly WaterRF and the American Water Works Association Research Foundation (AwwaRF)) uses the project final reports to convey the outcomes of sponsored research to their member utilities and regulatory agencies. The majority of these reports are subjected to anonymous peer review by project advisory committees and review by the funding agencies, and stakeholders.

The names of graduate students and research assistants that worked under my supervision appear with an asterisk (*), while postdoctoral researchers are noted with two asterisks (**).

Peer-Reviewed Reports

1. **Di Giovanni, G. D.**, E. A. Casarez**, J. A. Truesdale**, T. J. Gentry, P. Wanjugi, E. Martin and K. Wagner. 2015. Expansion and Evaluation of Texas' Bacterial Source Tracking Program, TSSWCB Project 13-50. Texas Water Resources Institute (publication TR-493), 100 pages.
2. **Di Giovanni, G. D.**, K. M. Barrella**, R. M. Hoffman and G. D. Sturbaum. 2014. *Cryptosporidium* Genotyping Workshop and Round Robin, Water Research Foundation Project 4284 Final Report, 34 pages plus appendices.
3. **Di Giovanni, G. D.**, E. Casarez**, T. Gentry, E. Martin, L. Gregory and K. Wagner. 2013. Support Analytical Infrastructure and Further Development of a Statewide Bacterial Source Tracking Library, TSSWCB Project 10-50. Texas Water Resources Institute (publication TR-448), 63 pages.
4. Gregory, L., E. Casarez**, J. Truesdale*, **G. Di Giovanni**, R. Owen and J. Wolfe. 2013. Bacterial Source Tracking to Support the Development and Implementation of Watershed Protection Plans for the Lampasas and Leon Rivers: Lampasas River Watershed, TSSWCB Project 10-51. Texas Water Resources Institute (publication TR-442), 72 pages.
5. Gregory, L., E. Casarez**, J. Truesdale*, **G. Di Giovanni**, R. Owen and J. Wolfe. 2013. Bacterial Source Tracking to Support the Development and Implementation of Watershed Protection Plans for the Lampasas and Leon Rivers: Leon River Watershed Final Report, TSSWCB Project 10-51. Texas Water Resources Institute (publication TR-441), 66 pages.

6. Gregory, L., K. Barrella**, A. Berthold, E. Casarez**, P. DeLaune, **G. Di Giovanni**, P. Dyer, A. Hoff, R. Karthikeyan, K. Borel, J. Sij, J. Truesdale* and B. VanDelist. 2012. Buck Creek Watershed Protection Plan. Texas State Soil and Water Conservation Board Project No. 06-11, 108 pages.
7. Feagley, S., T. Gentry, M. Atwell, E. Martin, J. Eickstead, T. Bilby, D. Boellstroff, J. Brady, N. Cherry, **G. Di Giovanni**, E. Jordan, W. Weems and R. Scott. 2012. Monitoring And Educational Programs Focused On *Escherichia coli* Bacteria And Nutrient Runoff On Dairy Operations In The Leon Watershed. Texas State Soil and Water Conservation Board Project 06-07, 46 pages.
8. Fahy, M. P., J. E. Balliew, A. J. Tarquin, A. M. Michelsen, S. Miyamoto, **G. Di Giovanni**, Z. Sheng, G. Niu, N. Garcia, J. P. King and F. Cortez. 2011. Membrane Treatment of Impaired Irrigation Return and Other Flows: Creating New Sources of High-Quality Water, Water Research Foundation Project 4069 Final Report, 205 pages.
9. Johnson, A. M., P. A. Rochelle and **G. D. Di Giovanni**. 2010. Detection of Infectious *Cryptosporidium* in Conventionally Treated Drinking Water, Water Research Foundation Project 3021 Final Report, 135 pages.
10. **Di Giovanni, G. D.**, R. M. Hoffman and G. D. Sturbaum. 2010. Development of a *Cryptosporidium* Genotyping Method for Regulatory Microscope Slides, Water Research Foundation Project 4099 Final Report, 56 pages plus appendices and instructional DVD.
11. **Di Giovanni, G. D.**, K. D. Mena and L. Y. Sifuentes. 2008. Host Cell Capture-Quantitative Sequence Detection of Potentially Infectious Viruses, AwwaRF Project 2992 Final Report, 56 pages.
12. Contributing Author. 2007. Bacterial Total Maximum Daily Load Task Force Report, Texas Water Resources Institute, 99 pages.
13. **Di Giovanni, G. D.** and E. A. Casarez. 2006. Upper and Lower San Antonio River, Salado Creek, Peach Creek and Leon River Below Lake Proctor Bacterial Source Tracking Project. Texas Commission on Environmental Quality, Austin, Texas, 99 pages.
14. Dean, K., M. Vargas, E. A. Casarez and **G. D. Di Giovanni**. 2006. Assessment of Bacterial Sources Impacting Lake Waco and Belton Lake. Texas Farm Bureau and Texas State Soil and Water Conservation Board, 106 pages.
15. Sen, K., G. S. Fout, R. Haugland, C. Moulton, A. Grimm, **G. D. Di Giovanni**, M. A. Feige, J. Birkenhauer Best, G. Lott, J. Scheller, E. Reilly, K. Connell and M. Marshall. 2004. Quality Assurance/Quality Control Guidance Manual for Laboratories Performing PCR Analyses on Environmental Samples. USEPA Office of Water, EPA 815-B-04-001, 64 pages.

16. Rochelle, P. A., A. Mofidi, M. M. Marshall, S. J. Upton, B. Montelone, K. Woods and **G. D. Di Giovanni**. 2003. An Investigation of UV Disinfection and Repair in *Cryptosporidium parvum*. Project 2669. American Water Works Association Research Foundation, Denver, Colorado, 112 Pages.
17. **Di Giovanni, G. D.**, M. R. Karim, M. W. LeChevallier, S. N. Boutros, J. S. Chandler, F. A. Abrams, M. L. Spinner and J. R. Weihe. 2002. Overcoming Molecular Sample Processing Limitations: Quantitative PCR. Project 00-HHE-2b. Water Environment Research Foundation, Alexandria, Virginia, 70 pages.
18. LeChevallier, M. W., **G. D. Di Giovanni**, J. L. Clancy, Z. Bukhari, S. Bukhari, J. S. Rosen, J. Sobrinho and M. M. Frey. 2002. Source Water Assessment: Variability of Pathogen Concentrations. Project 488, publication 90906. American Water Works Association Research Foundation, Denver, Colorado, 238 Pages.
19. Cornwell, D. A., M. J. MacPhee, N. E. McTigue, H. Arora, G. Di Giovanni, M. LeChevallier and J. S. Taylor. 2001. Treatment Options for *Giardia*, *Cryptosporidium* and Other Contaminants in Recycled Backwash Water. Project 352. American Water Works Association Research Foundation, Denver, Colorado, 374 pages.

Non Peer-Reviewed Reports

1. **Di Giovanni, G. D.**, J. Truesdale, K. Barrella and E. A. Casarez. 2010. Bacterial Source Tracking (BST) Results for Oklahoma City Water Samples, US Environmental Protection Agency Region 6, 9 pages.
2. **Di Giovanni, G. D.**, E. A. Casarez, J. Truesdale and K. Barrella. 2009. Bacterial Source Tracking (BST) Results, Watershed Protection Plan Development for Buck Creek, FY 06 CWA 319(H) Texas State Soil and Water Conservation Board Project No. 06-11, 14 pages.
3. **Di Giovanni, G. D.**, E. A. Casarez, K. Barrella and T. J. Gentry. 2009. Increased Analytical Infrastructure And Further Development of a Statewide Bacterial Source Tracking Library. Texas State Soil and Water Conservation Board Project 08-50, 29 pages.
4. **Di Giovanni, G. D.**, J. Truesdale, K. Barrella and E. A. Casarez. 2009. Preliminary Assessment of Fecal Pollution Sources Impacting Lake Granbury as Determined by Bacterial Source Tracking (BST). Brazos River Authority, Waco, Texas, 16 pages.
5. Flores Margez, J. P., N. W. Assadian, **G. D. Di Giovanni** and E. Jaramillo Lopez. 2004. Predicting Risk Factors Affecting the Human Food Chain and Human Health from Contaminants in Wastewater in the Juarez Valley. Paso Del Norte Health Foundation, Center for Border Health Research, El Paso, Texas, 99 pages.

6. Assadian, N. W., **G. D. Di Giovanni**, J. Enciso and J. Iglesias. 2003. The Movement of Waterborne Phage and Solutes in Soil Sub-irrigated with a Wastewater Blend. Texas Department of Agriculture, Texas Israeli Exchange Program. 34 pages.
7. LeChevallier, M.W., **G. D. Di Giovanni**, J. L. Clancy, Z. Bukhari, S. Bukhari, J. S. Rosen, J. Sobrinho and M. Frey. 2001. Variability of *Giardia* and *Cryptosporidium* Concentrations in Surface Water. American Water Works Service Co., Voorhees, New Jersey, 237 Pages.
8. **Di Giovanni, G. D.** and M. W. LeChevallier. 2000. Development of a *Cryptosporidium parvum* Viability and Infectivity Assay. American Water Works Service Co., Voorhees, New Jersey, 61 pages.
9. Arora, H., **G. D. Di Giovanni** and M. LeChevallier. 1999. Treatment Strategies for Spent Filter Backwash Water. American Water Works Service Co., Voorhees, New Jersey, 63 pages.

Book Chapters

1. **Di Giovanni, G. D.** and G. D. Sturbaum. 2015. Quality Control for USEPA Method 1623 Protozoan Analysis and PCR Analyses, p. 2.5.5-1 – 2.5.5-4. *In* M. Yates, C. Nakatsu, R. Miller, S. Pillai (ed), *Manual of Environmental Microbiology, 4th Edition*. ASM Press, Washington, DC.
2. Rochelle, P. A. and **G. D. Di Giovanni**. 2014. *Cryptosporidium* Oocysts in Drinking Water and Recreational Water, p. 489-513. *In* S. M. Caccio and G. Widmer (ed), *Cryptosporidium: Parasite and Disease*. Springer, Vienna.
3. **Di Giovanni, G. D.**, G. D. Sturbaum and H. V. Smith. 2013. Chapter 15: Real-Time PCR Detection of Food-borne and Water-borne Parasites, p. 191-215. *In* D. Rodriguez Lazaro (ed), *Real-Time PCR in Food Science: Current Technology and Applications*, Horizon Press.
4. Rochelle, P. A., **G. D. Di Giovanni**, R. M. Hoffman, P. T. Klonicki, R. M. McCuin and G. D. Sturbaum. 2012. 9711 D. Infectivity of *Cryptosporidium* in Cell Culture, p. 9222-9224. *In* E. W. Rice, R. B. Baird, A. D. Eaton and L. S. Clesceri (ed), *Standard Methods for the Examination of Water and Wastewater, 22nd ed.* American Public Health Association, American Water Works Association, Water Environment Foundation, Washington, DC. ***This represents the first standardized water industry method for the cell culture detection of infectious waterborne Cryptosporidium.***
5. Farnleitner, A. H., G. H. Reischer, H. Stadler, D. Kollanur, R. Sommer, W. Zerobin, K. M. Barrella**, J. A. Truesdale*, E. A. Casarez** and **G. D. Di Giovanni**. 2011. Chapter 18: Agricultural and Rural Watersheds, p. 399-431. *In* C. Hagedorn, A. Blanch and J. Harwood (ed), *Microbial Source Tracking: Methods, Applications, and Case Studies*, 642 pages, Springer Science+Business Media, LLC, New York.

6. Pillai, S. D., D. H. D'Souza, **G. D. Di Giovanni**, A. Sharma and M. Patterson. 2008. Microbiological Safety of Foods: Contemporary Challenges and Solutions, p. 360-385. *In* A. Pandey, C. Larroche, C. R. Soccol, and C-G Dussap (ed), *New Horizons in Biotechnology*, 456 pages, Asiatech Publishers, Inc. New Delhi.
7. Flores Margez, J. P., E. Jaramillo-López, N. W. Assadian and **G. Di Giovanni**. 2007. Potential transfer of heavy metals from wastewater, biosolids and soil to forage and sheep tissues in the north of Mexico, p. 64-65. *In* Y. Zhu, N. Lepp, and R. Naidu (ed), *Biogeochemistry of Trace Elements: Environmental Protection, Remediation, and Human Health*, Tsinghua University Press, Beijing, China.
8. Sturbaum, G. D. and **G. D. Di Giovanni**. 2006. Waterborne Parasites and Diagnostic Tools, pp. 231-273. *In* Y. Ortega (ed), *Foodborne Parasites, Food Microbiology and Food Safety Series*, Springer Science+Business Media, LLC, New York.
9. **Di Giovanni, G. D.** and R. Aboytes. 2003. Detection of infectious *Cryptosporidium parvum* oocysts in environmental water samples, p. 213-224. *In* R. C. A. Thompson (ed), *Cryptosporidium: From Molecules to Disease*, Elsevier Science, New York.
10. Pillai, S. D., **G. D. Di Giovanni**. 2003. Microbial Sampling, p. 618-621. *In* B. A. Stewart and T. A. Howell (eds.), *Encyclopedia of Water Science*, Marcel Dekker, Inc., New York.
11. LeChevallier, M. W., M. Abbaszadegan and **G. D. Di Giovanni**. 2000. Detection of infectious *Cryptosporidium parvum* oocysts in environmental water samples using an integrated cell culture-PCR (CC-PCR) system. p. 53-65. *In* S. Belkin (ed.), *Environmental Challenges*, Kluwer Academic Publishers, Dordrech, The Netherlands.

Texas AgriLife Research Publications and Fact Sheets

1. **Di Giovanni, G. D.**, R. M. Hoffman and G. D. Sturbaum. 2011. Genotyping *Cryptosporidium* recovered from water regulatory slides. Project Fact Sheet, Texas AgriLife Research Center at El Paso.
2. **Di Giovanni, G. D.**, P. A. Rochelle, A. M. Johnson and T. Slifko. 2004, revised 2005, 2008, 2011. Detection of infectious *Cryptosporidium* in drinking water. Project Fact Sheet, Texas AgriLife Research Center at El Paso.
3. **Di Giovanni, G. D.** and J. Smith. 2004. Protecting El Paso's water supply. Rio Grande Basin Initiative Outcomes 3(2):4-5.
4. Assadian, N. W., **G. D. Di Giovanni**, E. Chenault. 2003. Water reclaimed: El Paso scientists explore safe ways to extend water sources. Lifescapes, The Agriculture Program, Texas A&M University.

5. Assadian, N. W., **G. D. Di Giovanni**, J. P. Flores Margez and E. Jaramillo. 2003, revised 2005, 2008. Human health risks from contaminants in reclaimed Juarez Valley wastewater. Project Fact Sheet, Texas AgriLife Research Center at El Paso.
6. Assadian, N. W., **G. D. Di Giovanni**, J. Enciso and J. Iglesias. 2003, revised 2006, 2008. Reclaimed wastewater for subsurface drip irrigation of crops. Project Fact Sheet, Texas AgriLife Research Center at El Paso.
7. **Di Giovanni, G. D.** and K. D. Mena. 2003, revised 2005, 2008. Molecular detection of infectious viruses in water. Project Fact Sheet, Texas AgriLife Research Center at El Paso.
8. **Di Giovanni, G. D.** 2003, revised 2005, 2008. Pathogens in Rio Grande River water. Project Fact Sheet, Texas AgriLife Research Center at El Paso.
9. **Di Giovanni, G. D.**, T. Gentry, S. D. Pillai and J. Mott. 2003, revised 2005, 2008, 2009, 2010. Protecting our water: Tracking sources of bacterial contamination. Project Fact Sheet, Texas AgriLife Research Center at El Paso.

Popular Press and Featured News Articles

1. “A Decade of Solving Water Quality Mysteries.” 2015. Texas Water Resources Institute, txH₂O magazine, Fall 2015:10-13.
2. KTEP National Public Radio interview, University of Texas at El Paso “100 @ 100: Research for Our Next Century, George Di Giovanni.” Aired October 2, 2014.
3. “New Molecular Method IDs Pathogenic Crypto.” 2010. American Water Works Association (AWWA) Streamlines 2(18):1-2.
4. “The Baron of Bugs: Keeping Waterborne Pathogens at Bay.” 2010. Texas Water Resources Institute, txH₂O magazine, Winter 2010:20-22.
5. KFOX TV News interview on U.S. salmonellosis outbreak from peanut butter, February 15, 2007.
6. KFOX TV News Special Assignment story on research program and U.S. *E. coli* O157:H7 spinach outbreak, November 8, 2006.
7. “Ag Researchers: Water Reuse Works.” 2005. Water Environment Technology Waterline 17(12):48.
8. “Reclaimed Wastewater Shows Promise for Irrigation.” 2005. Southwest Hydrology 4:34-35.

9. Our research on the transport of waterborne solutes and bacteriophage in soil subirrigated with a wastewater blend appeared on at least 14 web sites and newspapers, and 1 radio talk show in 2005: Asia Water Online, EurekAlert, Fathers Canada, iCivilEngineer, Innovations, Journal of Young Investigators, National Biosolids News, Omniomix, Ottawa Citizen, Red Orbit, Science Daily, Terra Daily, WaterReuse News, West Texas County Courier, Texas Farm Bureau Radio.

Patents and Technology Transfer

- **Di Giovanni, G. D.** “A Precision Internal Control for the Detection of *Cryptosporidium* in Water Using Microscopy and Polymerase Chain Reaction Genotyping,” Texas A&M University System Patent Disclosure TAMUS-3003, 2009
- **Di Giovanni, G. D.** “Precision Controls for the Polymerase Chain Reaction Detection and High Resolution Melt Analysis Genotyping of *Cryptosporidium*,” Texas A&M University System Patent Disclosure TAMUS-3002, 2009
- U.S. Patent 6,395,517 “Methods and Kits for Detection of *Cryptosporidium parvum*,” M. Abbaszadegan, **G. D. Di Giovanni** and M. W. LeChevallier, May 28, 2002
- Hong Kong Patent 1,039,965 “Methods and Kits for Detection of *Cryptosporidium parvum*,” M. Abbaszadegan, **G. D. Di Giovanni** and M. W. LeChevallier, May 31, 2002
- U.S. Patent 6,153,411 “Methods and Kits for Detection of *Cryptosporidium parvum* Using Immunomagnetic Separation and Amplification,” M. Abbaszadegan, **G. D. Di Giovanni** and M. W. LeChevallier, November 28, 2000; European Patent EP1127162, August 29, 2001
- **Principal Investigator** for the commercial PCR-based kit “BAX® System PCR Assay for Screening *Cryptosporidium parvum*” for the water industry developed and marketed in partnership with DuPont Qualicon, 1999 – 2001

Published Meeting Proceedings and Abstracts (Last 5 Years Only)

1. Gentry, T., M. Mukherjee, D. Boellstorff, K. Wagner and **G. Di Giovanni**. Bacterial source tracking: Potential application to drinking water wells. Proceedings of the 71st Annual Soil & Water Conservation Society Conference, July 24-27, Louisville, Kentucky.
2. Zhou, P., **G. D. Di Giovanni**, J. S. Meschke and M. C. Dodd. 2015. Mechanistic elucidation and modeling of enhanced microbial inactivation during solar photolysis of chlorine to ROS and ozone. Proceedings of the American Water Works Association Water Quality Technology Conference, November 15 – 19, 2015, Salt Lake City, Utah.

3. Wagner, K., **G. Di Giovanni**, E. Casarez, J. Truesdale, P. Wanjugi, T. Gentry and L. Gregory. 2015. Improving watershed planning using bacterial source tracking. Proceedings of the 70th Annual Soil & Water Conservation Society Conference, July 26 – 29, 2015, Greensboro, North Carolina.
4. Zhou, P., **G. D. Di Giovanni**, J. S. Meschke and M. C. Dodd. 2015. Looking at chlorination in a new light: solar photolysis of chlorine to ozone and hydroxyl radical for inactivation of chlorine-resistant microorganisms. Proceedings of the American Water Works Association Annual Conference and Exposition, June 7 – 10, 2015, Anaheim, California.
5. Alderisio, K. A., K. W. Gable, L. A. McDonald and **G. D. Di Giovanni**. 2015. Detection of infectious *Cryptosporidium* oocysts in spiked drinking water reservoir samples using a cell culture IFA method. Proceedings of the American Water Works Association 6th International Symposium on Waterborne Pathogens, April 13 -14, 2015, Savannah, Georgia.
6. Rochelle, P. A., A. Johnson and **G. D. Di Giovanni**. 2015. Still optimizing a cell culture infectivity assay for *Cryptosporidium*. Proceedings of the American Water Works Association 6th International Symposium on Waterborne Pathogens, April 13 -14, 2015, Savannah, Georgia.
7. Wagner, K., T. Gentry, D. Harmel, **G. Di Giovanni**, L. Gregory, E. Casarez and R. Karthikeyan. 2015. What are the sources of bacteria in your watershed? They may not be what you expect. 2015 Waste to Worth Conference, March 30 – April 3, 2015, Seattle, Washington.
8. Alderisio, K. A. and **G. D. Di Giovanni**. 2014. An assessment of the potential to determine the infectivity of *Cryptosporidium* oocysts in NYC water matrix using cell culture immunofluorescence assay. Abstracts of the 2014 New York Water Environment Association (NYWEA) Watershed Science and Technical Conference, September 10, 2014, West Point, New York.
9. Grundlingh, M. and **G. D. Di Giovanni**. 2014. The relationship between wastewater treatment works and the occurrence of oocysts and cysts in the Rietspruit catchment. Abstracts of the Water Institute of Southern Africa (WISA) Biennial Conference, May 25 – 29, 2014, Mbombela, Mpumalanga, South Africa.
10. Wagner, K., **G. Di Giovanni**, E. Casarez, T. Gentry, E. Martin and L. Gregory. 2014. Bacterial source tracking in Texas: a retrospective assessment of a decade of use in the Lone Star state. Abstracts of the 2014 Water Microbiology Conference, May 5 – 9, 2014, Chapel Hill, North Carolina.
11. Sturbaum, G., A. Wakinson, C. Tseng, J. Schmidt, N. Young, N. Williams, A. L. Child, R. Hoffman and **G. Di Giovanni**. 2014. Risk assessment of *Cryptosporidium* spp. detected in a Queensland catchment. Abstracts of the Australian Water Association Ozwater '14 conference, April 29 – May 1, 2014, Brisbane, Australia, [on CD-ROM].

12. Wagner, K., **G. Di Giovanni**, E. Casarez, T. Gentry, E. Martin and L. Gregory. 2014. Bacterial source tracking in Texas: a retrospective assessment of a decade of use in the Lone Star state. Abstracts of the Texas Water 2014 conference, Texas Branch of the American Water Works Association, April 14 – 17, 2014, Dallas, Texas.
13. **Di Giovanni, G. D.**, K. M. Barrella, R. M. Hoffman and G. D. Sturbaum. 2013. Next steps for genotyping oocysts in Round 2. Proceedings of the American Water Works Association Water Quality Technology Conference, November 3 – 7, 2013 [on CD-ROM].
14. Sturbaum, G., J. Schmidt, R. Hoffman, A. Child and **G. Di Giovanni**. 2013. *In vitro* culture of human infectious *Cryptosporidium meleagridis*. Proceedings of the American Water Works Association Water Quality Technology Conference, November 3 – 7, 2013 [on CD-ROM].
15. Lalancette, L., I. Papineau, S. Dorner, P. Servais, B. Barbeau, **G. D. Di Giovanni** and Michèle Prévost. 2013. Using *E. coli* to *Cryptosporidium* ratios: Are current binning thresholds safe? Proceedings of the American Water Works Association Water Quality Technology Conference, November 3 – 7, 2013 [on CD-ROM].
16. Barrella, K. M., R. M. Hoffman, G. D. Sturbaum and **G. D. Di Giovanni**. 2013. International multi-laboratory evaluation of a method for genotyping *Cryptosporidium* recovered from water regulatory slides. Abstracts of the 17th International Symposium on Health Related Water Microbiology (WaterMicro 2013), September 15 – 20, 2013, Florianopolis, Brazil [on CD-ROM].
17. Hernandez, J. and **G. D. Di Giovanni**. 2013. Technology transfer of a *Cryptosporidium* slide genotyping method to a water utility. Abstracts of the Arizona Water Association 86th Annual Conference and Exposition, May 3, 2013 [on CD-ROM].
18. Hernandez, J. and **G. D. Di Giovanni**. 2012. Technology transfer of a *Cryptosporidium* slide genotyping method to a water utility. Proceedings of the American Water Works Association Water Quality Technology Conference, November 4 – 8, 2012 [on CD-ROM].
19. Martin, E. C., E. A. Casarez, J. Truesdale, **G. D. Di Giovanni** and T.J. Gentry. 2012. Bacterial source tracking (BST) in action: Utilization of BST toolbox approach in Texas watersheds. 20th Annual Nonpoint Source Monitoring Workshop, October 14 – 17, 2012, Tulsa, Oklahoma.
20. Casarez, E. A. and **G. D. Di Giovanni**. 2012. Texas *E. coli* bacterial source tracking library. Abstracts of the Bacterial Source Tracking: State of the Science Conference, February 28 – 29, 2012, New Braunfels, Texas.
21. Gentry, T. and **G. D. Di Giovanni**. 2012. Exploration of library-independent BST for Texas. Abstracts of the Bacterial Source Tracking: State of the Science Conference, February 28 – 29, 2012, New Braunfels, Texas.

22. **Di Giovanni, G. D.**, K. M. Barrella, R. M. Hoffman and G. D. Sturbaum. 2012. International multi-laboratory evaluation of a method for genotyping *Cryptosporidium* recovered from water regulatory slides. Proceedings of the 4th International *Giardia* and *Cryptosporidium* Conference, Wellington, New Zealand, January 31 – February 3, 2012 [on CD-ROM].
23. **Di Giovanni, G. D.** 2011. PCR Detection of waterborne pathogens: Time to sink or swim. Proceedings of the American Water Works Association Water Quality Technology Conference, November 13 – 17, 2011, [on CD-ROM].

GRANTS AND CONTRACTS

Funds to my research program and for which I was responsible total \$4.9 million, with total project funding over \$9.3 million. Research topics included the quantitative molecular detection of protozoan, viral and bacterial pathogens; microbiological safety of reclaimed water; and microbial source tracking to determine the human and animal sources of fecal pollution of water supplies. Funding sources included the Water Research Foundation (formerly the American Water Works Association Research Foundation); Environmental Protection Agency; United Kingdom Drinking Water Inspectorate; Drinking Water Quality Regulator for Scotland; New York City Department of Environmental Protection; Ecowise Environmental (Australia); Texas Department of Agriculture; U.S. Department of Agriculture; U.S. Bureau of Reclamation; Texas State Soil and Water Conservation Board; Texas Commission on Environmental Quality; Brazos River Authority; and the Paso del Norte Health Foundation – Center for Border Health Research.

Title of proposal (competitive)	Role	Funding source	Project period	Total funding	Di Giovanni lab
Texas Bacterial Source Tracking Program for FY16-17 (Texas State Soil and Water Conservation Board Project 16-51, UTHealth Project 11331)	Co-PIs Wagner, Di Giovanni , Gentry	Texas State Soil and Water Conservation Board and Texas AgriLife Research	11/01/15-10/31/17	\$443,274	\$189,507
Statewide Bacterial Source Tracking Program for FY15 (Texas State Soil and Water Conservation Board Project 15-52, UTHealth Project 10551)	Co-PIs Wagner, Di Giovanni , Gentry	Texas State Soil and Water Conservation Board and Texas AgriLife Research	09/01/2014-02/29/16	\$215,843	\$98,109

<i>Cryptosporidium</i> Slide Genotyping and Cell Culture Infectivity Assay Technology Transfer	Di Giovanni	Sydney Water Corporation (Australia)	05/08/15-05/15/15	\$4,873	\$4,873
Investigation of Assays for the Detection of <i>Cryptosporidium</i> in Wildlife Scat	Di Giovanni	Portland (Oregon) Water Bureau and UC Davis	05/01/15-07/16/15	\$3,600	\$3,600
<i>Cryptosporidium</i> Infectivity and Genotyping Research for the Hillview Reservoir	PI Di Giovanni	New York City Department of Environmental Protection	04/23/14-06/30/17	\$79,968	\$79,968
Bacterial Source Tracking to Support Adaptive Management of the Arroyo Colorado Watershed Protection Plan (Texas State Soil and Water Conservation Board Project 12-10, UTHealth Project 9357)	Co-PIs Wagner, Di Giovanni, Benavides	Texas State Soil and Water Conservation Board and Texas Water Resources Institute	11/01/12-10/31/15	\$632,898	\$315,941
Statewide Bacterial Source Tracking Program for FYs 2013-2014 (Texas State Soil and Water Conservation Board Project 13-50, UTHealth Project 9494)	Co-PIs Wagner, Di Giovanni, Gentry, Lopez	Texas State Soil and Water Conservation Board and Texas AgriLife Research	10/01/12-05/31/15	\$415,348	\$153,372
Bacterial Source Tracking to Support the Development and Implementation of Watershed Protection Plans for the Lampasas and Leon Rivers (TSSWCB Project No. 10-51, UTHealth Project 8796)	Co-PIs Di Giovanni, June Wolfe, Bill Harris	Texas State Soil and Water Conservation Board and Texas Water Resources Institute	2010-2012	\$432,905	\$133,515 (\$100,981 at TAMU, \$32,534 at UTHealth)
Support for Analytical Infrastructure and Further Development of a Statewide Bacterial Source Tracking Library (TSSWCB Project No. 10-50, UTHealth Project 8795)	Co-PIs Di Giovanni, Terry Gentry, Bill Harris	Texas State Soil and Water Conservation Board and Texas Water Resources Institute	2010-2012	\$378,403	\$197,467 (\$98,381 at TAMU, \$99,086 at UTHealth)

<i>Cryptosporidium</i> Genotyping Workshop and Round Robin (Water Research Foundation 4284, UTHealth Project 9232)	PI Di Giovanni, Co-PIs Greg Sturbaum and Becky Hoffman	Water Research Foundation, United Kingdom Drinking Water Inspectorate, Drinking Water Quality Regulator for Scotland, and Ecowise Environmental/ALS (Australia)	2010-2014	\$94,993	\$94,993 (\$61,301 at TAMU, \$33,692 at UTHealth)
UTSPH Subtotal				\$2,736,600	\$1,082,038
Grants During Faculty Appointment With Texas AgriLife Research, Texas A&M University System					
Bacterial Source Tracking for Oklahoma City Water Samples	PI Di Giovanni	USEPA Region 6	2009-2010	\$24,000	\$24,000
Development of a Method 1622/23 <i>Cryptosporidium</i> Speciation Protocol for Use by Water Quality and Utility Laboratories (Water Research Foundation 4099)	PI Di Giovanni, Co-PIs Greg Sturbaum and Becky Hoffman	Water Research Foundation and USEPA	2008-2010	\$198,116	\$198,116
Increased Analytical Infrastructure and Further Development of a Statewide Bacterial Source Tracking Library	PI Di Giovanni	Texas State Soil and Water Conservation Board, Texas Water Resources Institute	2007-2008	\$200,279	\$200,279
Identification of Fecal Pollution Sources Impacting Lake Granbury	PI Di Giovanni	Brazos River Authority, TCEQ and USEPA	2007-2008	\$163,156	\$163,156
Watershed Protection Plan Development for Buck Creek	Co-PI Di Giovanni, PI C. A. Jones, Co-PI J. Sij	USEPA, Texas State Soil and Water Conservation Board	2006 –2009	\$430,181	\$146,155
Monitoring and Educational Programs Focused on <i>Escherichia coli</i> Bacteria and Nutrient Runoff on Dairy Operations in the Leon Watershed	Co-I Di Giovanni, PI S. Feagley, Co-PIs, M. Dozier, T. Gentry	Texas State Soil and Water Conservation Board and USEPA	2006 –2009	\$438,357	\$46,058

Membrane Treatment of Impaired Irrigation Return and Other Flows for Creating New Sources of High Quality Water	Co-I Di Giovanni, El Paso Water Utilities, AgriLife Research-El Paso faculty, UTEP faculty	American Water Works Association Research Foundation, USBR, SCERP, EPWU	2006-2007	\$317,445	\$45,000
Detection of Infectious <i>Cryptosporidium</i> in Filtered Drinking Water (AwwaRF 3021)	Co-PI Di Giovanni, PI P. A. Rochelle. Co-PIs: A. M. Johnson, R. De Leon, and T. Slifko	Metropolitan Water District of Southern California and American Water Works Association Research Foundation	2005-2009	\$496,405	\$246,697
Host Cell Capture and Quantitative Polymerase Chain Reaction (HCC-qPCR) for the Rapid Detection of Potentially Infectious Viruses in Water (AwwaRF 2992)	PI Di Giovanni, Co-PI K. D. Mena	American Water Works Association Research Foundation	2004-2006	\$144,002	\$144,002
Bacterial Monitoring for the Buck Creek	Co-PI Di Giovanni, PI J. Sij	Texas State Soil and Water Conservation Board, Texas Water Resources Institute	2004-2006	\$247,198	\$6,580
Cash Gift	Di Giovanni	Environmental Associates Limited	2004	\$11,500	\$11,500
Bacterial Source Tracking (BST) Project – Upper and Lower San Antonio Rivers, Salado Creek, Peach Creek and Leon River Below Proctor Lake	PI Di Giovanni	USEPA and Texas Commission on Environmental Quality (TCEQ), USEPA	2003-2005	\$518,904	\$518,904
Predicting Risk Factors Affecting the Human Food Chain and Human Health from Contaminants in Wastewater in the Juarez Valley	PI Di Giovanni, Co-PIs J. P. Flores Margez, N. Assadian, E. Jaramillo	Paso del Norte Health Foundation, Center for Border Health Research	2002-2004	\$75,000	\$15,000

Technical Laboratory Auditor EPA Method 1623, Detection of <i>Cryptosporidium</i> and <i>Giardia</i> in Water	Di Giovanni	USEPA and CSC/DynCorp,	2002-2007	\$153,860	\$153,860
Development of Bacterial Source Tracking (BST) Libraries and Assessment of Bacterial Sources Impacting Lakes Waco and Belton	PI Di Giovanni, Co-PIs S. D. Pillai, J. Mott, K. Dean, M. Vargas	USEPA, Texas State Soil and Water Conservation Board	2002-2006	\$639,741	\$473,773
Efficient Irrigation for Water Conservation in the Rio Grande Basin	PI Di Giovanni	US Department of Agriculture and TWRI	2002-2007	\$164,500	\$164,500
The Use of Wastewater To Irrigate Vegetable Crops With Subsurface Drip Irrigation Systems	Co-PI Di Giovanni, PI N. Assadian, Co-PIs J. Enciso, J. Iglesias	Texas Department of Agriculture	2002-2003	\$24,908	\$8,000
Grants as a Private Drinking Water Industry Scientist and Postdoctoral Scientist					
Overcoming Molecular Sample Processing Limitations: Quantitative PCR	PI Di Giovanni, Co-PIs: Karim, LeChevallier, Co-Is Boutros, Chandler	Water Environment Research Foundation (WERF)	2000-2002	\$319,000	\$125,000
An Investigation of <i>Cryptosporidium parvum</i> Oocyst Repair Following UV Disinfection (AwwaRF 2669)	Investigator Di Giovanni, PI Rochelle. Co-PIs Marshall, Upton, Monteleone	American Water Works Research Foundation	2000-2002	\$299,797	\$20,300
Source Water Assessment: Variability of Pathogen Concentrations (AwwaRF 488)	Investigator Di Giovanni, PI LeChevallier, Co-PIs Clancy, Rosen, Frey	American Water Works Research Foundation	1999-2001	\$749,998	\$165,232

Treatment Options for <i>Giardia</i>, <i>Cryptosporidium</i> and Other Contaminants in Recycled Backwash Water (AwwaRF 352)	Investigator Di Giovanni, PI LeChevallier, Co-PIs Arora, MacPhee, McTigue, Taylor	American Water Works Research Foundation	1997-1999	\$296,500	\$132,500
<i>Cryptosporidium parvum</i> Infectivity Assay	PI Di Giovanni	American Water Works Service Company	1997-2000	\$551,400	\$551,400
Use of Community-Level Metabolic and Molecular Analyses for the Evaluation of Plant-Associated Microbial Diversity	PI Di Giovanni	National Research Council and US Environmental Protection Agency Research Award	1995-1997	\$105,000	\$105,000
			TOTAL	\$9,305,847	\$4,927,713

INVITED PRESENTATIONS

Summary of Invited Scientific and Professional Presentations

Type	Since joining UTSPH	Career
International	5	18
National	1	15
Regional, State, and University Seminars	3	33
Stakeholder and Research-User Groups		13
Total	9	79

Invited International Presentations

1. **Di Giovanni, G. D.**, K. M. Barrella, R. M. Hoffman and G. D. Sturbaum. “*Cryptosporidium* Slide Genotyping to Support Regulatory Monitoring,” 5th International *Giardia* and *Cryptosporidium* Conference, May 27 – 30, 2014, Uppsala, Sweden
2. **Di Giovanni, G. D.** “Update on *Cryptosporidium* and Bacterial Source Tracking Research,” Melbourne Water and ALS Water Resources Group, May 3, 2012, Melbourne, Australia
3. **Di Giovanni, G. D.** “International Multi-Laboratory Evaluation of a Method for Genotyping *Cryptosporidium* Recovered From Water Regulatory Slides,” QIAGEN Microbiology Webinar Series, November 9, 2011 (attended by 56 sites located in 9 countries)
4. **Di Giovanni, G. D.** “Using Microbial Source Tracking to Protect Water Quality,” Federation of Korean Microbial Societies, October 14, 2011, Seoul, Korea
5. **Di Giovanni, G. D.** “Identifying Fecal Pollution Sources and Management Considerations,” 9th United Nations University & Gwangju Institute of Science and Technology Joint Symposium, October 12, Gwangju, Korea
6. **Di Giovanni, G. D.** “Waterborne *Cryptosporidium*: Infectivity, Genotyping, and Regulations,” Sydney Water, August 18, 2010, Sydney, Australia

7. **Di Giovanni, G. D.** “Genotyping *Cryptosporidium* detected on regulatory slides,” New Approaches for Assessing Microbial Threats: An AWWA Webcast. American Water Works Association, February 17, 2010 (Approximately 600 international and US viewers)
8. **Di Giovanni, G. D.** “Bacterial Source Tracking Efforts in the State of Texas, USA,” Global Conference on Microbial Contaminants in Drinking Water, October 7, 2009, Singapore
9. **Di Giovanni, G. D.,** N. F. Garcia, R. M. Hoffman and G. D. Sturbaum. “Genotyping *Cryptosporidium* Detected on Regulatory Slides,” Global Conference on Microbial Contaminants in Drinking Water, October 6, 2009, Singapore
10. **Di Giovanni, G. D.** “Foodborne and Waterborne Protozoa - Common Issues and Challenges,” International Conference on New Horizons in Biotechnology (NHBT 2007), November 27, 2007, Trivandrum, Kerala, India
11. **Di Giovanni, G. D.** “*Cryptosporidium*: Review of Biology Basics and Implications for the Water Industry,” USEPA Method 1623 Made Easy Workshop, AWWA Water Quality and Technology Conference, November 6, 2005, Quebec City, Quebec
12. **Di Giovanni, G. D.** “Quantitative Methods for the Molecular Detection and Infectivity Determination of Waterborne Pathogens,” International Society for Exposure Analysis, November 3, 2005, Tucson, Arizona
13. **Di Giovanni, G. D.** “Quantitative PCR Detection of *Cryptosporidium* and Enteroviruses in Water,” Kiwa Water Research Institute, July 25, 2002, Nieuwegein, The Netherlands
14. **Di Giovanni, G. D.** “Update on *Cryptosporidium* Research and Regulations in the United States,” Kiwa Water Research Institute, July 26, 2002, Nieuwegein, The Netherlands
15. **Di Giovanni, G. D.** and R. Aboytes. “Detection of Infectious *Cryptosporidium parvum* Oocysts in Environmental Water Samples,” *Cryptosporidium: from Molecules to Disease* Conference, Oct. 10, 2001, Fremantle, Australia
16. **Di Giovanni, G. D.** “Viability Testing and Genetic Typing of *Cryptosporidium*” Water Services Association of Australia (WSAA) Strategic Workshop on Viability Testing and Genetic Typing of *Cryptosporidium* Oocysts, March 9, 2000, Sydney, Australia
17. **Di Giovanni, G. D.** “Status of *Cryptosporidium* Water Testing in the United States,” Murdoch University, March 7, 2000, Perth, Australia
18. **Di Giovanni, G. D.,** M. R. Karim, C. Norton and M. W. LeChevallier. “Pathogen Intrusion Into Drinking Water Distribution Systems and Monitoring for *Mycobacterium* and Infectious *Cryptosporidium*,” Workshop for Russian Water Quality and Public Health Professionals, Harvard University School of Public Health, February 22, 2000, Boston, Massachusetts

Invited National Meeting Presentations

1. **Di Giovanni, G. D.** “PCR Detection of Waterborne Pathogens: Time to Sink or Swim,” American Water Works Association Water Quality Technology Conference, November 15, 2011, Phoenix, Arizona
2. **Di Giovanni, G. D.** “LT2ESWTR and What We Have Learned About *Cryptosporidium* Since Milwaukee,” American Water Works Association Water Quality Technology Conference, November 17, 2010, Savannah, Georgia
3. **Di Giovanni, G. D.** “Bacterial Source Tracking: A Toolbox Approach,” American Water Works Association Water Quality Technology Conference Special Topic Session on Emerging Issues and Methods in Source Water Protection, November 18, 2008
4. **Di Giovanni, G. D.** “Waterborne *Cryptosporidium*: Risks, Regulations and Challenges,” US Environmental Protection Agency Virtual Seminar Series (webcast), October 22, 2008
5. Sij, J.W., P.M. Dyer, **G. D. Di Giovanni**, C.A. Jones, K. Wagner and L. Gregory. “The Buck Creek Watershed Bacterial Monitoring and Sourcing Projects,” 15th National Nonpoint Source Monitoring Workshop, August 28, 2007, Austin, Texas
6. **Di Giovanni, G. D.** and N. F. Garcia. “Nanofiltration Removal of Pathogens From Impaired Rio Grande River Winter Return Flows,” 11th Annual Water Reuse Research Conference, June 5, 2007, El Paso, Texas
7. **Di Giovanni, G. D.** “CCL Viruses: Update and Research Needs,” American Water Works Association Water Quality Technology Conference, November 8, 2006, Denver, Colorado
8. **Di Giovanni, G. D.** “Tips for Reducing Debris Carryover for EPA Method 1623,” US Environmental Protection Agency LT2 Enhanced Surface Water Treatment Rule Laboratory Meeting, November 16, 2004, San Antonio, Texas
9. **Di Giovanni, G. D.** “Update on LT2ESWTR *Cryptosporidium* Monitoring and Genetic Characterization,” AWWA Source Water Protection Symposium, Early Warning and Source Water Monitoring Workshop, January 19, 2003, Albuquerque, New Mexico
10. **Di Giovanni, G. D.** “Detection of Potentially Infectious Enteroviruses Using Host Cell Capture and Quantitative PCR,” USEPA and AwwaRF Workshop to Develop a Protocol for Reliable Genetic Methods for the Detection of Viruses for Use in EPA’s Water Program, USEPA Andrew W. Breidenbach Environmental Research Center, January 15, 2003, Cincinnati, Ohio
11. **Di Giovanni, G. D.**, R. Aboytes and M. W. LeChevallier. “Use of Cell Culture-Polymerase Chain Reaction (CC-PCR) to Detect Infectious *Cryptosporidium parvum* in Drinking Water,” 14th Annual Meeting of the Association of State Drinking Water Administrators, October 6, 1999, Orlando, Florida

12. **Di Giovanni, G. D.** "Detection and *hsp70* Sequence Analysis of Infectious Waterborne *Cryptosporidium parvum*," US Environmental Protection Agency Workshop on the Significance of *Cryptosporidium parvum* Strain Differences on Human and Animal Infection, April 29, 1999, Washington, DC
13. **Di Giovanni, G. D.** "Detection of Live, Infectious *Cryptosporidium parvum* Oocysts in Water," 13th Annual Meeting of the Association of State Drinking Water Administrators, October 7, 1999, Keystone, Colorado
14. **Di Giovanni, G. D.** "Detection and Infectivity Determination of *Cryptosporidium parvum* in Water Samples," Centers for Disease Control and Prevention, Division of Parasitic Diseases, September 21, 1998, Atlanta, Georgia
15. **Di Giovanni, G. D.,** M. Abbaszadegan and M. W. LeChevallier. "PCR Assays for the Determination of *Cryptosporidium* Viability," AWWA Water Quality Technology Conference, November 8, 1997, Denver, Colorado

Invited Regional, State, and University Seminar Presentations

1. **Di Giovanni, G. D.** "Getting To The Bottom Of Water Fecal Pollution Using Bacterial Source Tracking (BST)," Texas A&M University Department of Biological and Agricultural Engineering, October 3, 2016, College Station, Texas
2. **Di Giovanni, G. D.** "Waterborne Pathogen Research to Support Water Quality Regulations," US Environmental Protection Agency Region 6, Regional Science Council Seminar Series (Webcast and posted to EPA Facebook site), August 21, 2013, Dallas, Texas
3. **Di Giovanni, G. D.** "Bacterial Source Tracking Identification of Water Fecal Pollution Sources," University of Texas-El Paso (UTEP) Ecology and Evolutionary Biology Graduate Student Seminar Series, March 6, 2013, El Paso, Texas
4. **Di Giovanni, G. D.** "Bringing Added Value to Regulatory Monitoring for *Cryptosporidium* by Using Molecular Methods," QIAGEN North American Symposium Series 2011, University of California - San Francisco, April 28, 2011
5. **Di Giovanni, G. D.** "PCR Detection of Waterborne Pathogens: Time to Sink or Swim," Northern California Branch American Society for Microbiology, November 6, 2010, Santa Clara, California
6. **Di Giovanni, G. D.** "Bacterial Source Tracking Identification of Water Fecal Pollution Sources," New Mexico Water Resources Research Institute, April 13, 2010, Las Cruces, New Mexico

7. **Di Giovanni, G. D.** “Water Treatment and Waterborne Pathogens,” Course lecture for PH 2110 Environmental Health, University of Texas – Houston School of Public Health El Paso Regional Campus, March 1, 2010, El Paso, Texas
8. **Di Giovanni, G. D.** “Bacterial Source Tracking in Texas: Status and Future Directions,” USDA CSREES and USEPA Region 6 Nonpoint Source Pollution Program, September 3, 2009, Dallas, Texas (also webcast)
9. **Di Giovanni, G. D.** “Microbiological Quality of Rio Grande River Water and Treatment Options for Use of Winter Return Flows,” Texas Master Gardener’s Program, August 11, 2009, El Paso, Texas
10. **Di Giovanni, G. D.,** J. Mott and T. J. Gentry. “Bacterial Source Tracking in Texas: Status and Future Directions,” USEPA Region 6 19th Annual Quality Assurance Meeting, October 20, 2009, Dallas, Texas
11. **Di Giovanni, G. D.** “Water Treatment and Waterborne Pathogens,” Course lecture for PH 2110 Environmental Health, University of Texas – Houston School of Public Health El Paso Regional Campus, February 24, 2009, El Paso, Texas
12. **Di Giovanni, G. D.** “Status of Bacterial Source Tracking in Texas,” Texas Commission on Environmental Quality, July 28, 2008, Austin, Texas
13. **Di Giovanni, G. D.** “Bacterial Source Tracking: What Can It Deliver?” BESC 401 Bioenvironmental Microbiology course lecture, Texas A&M University Plant Pathology and Microbiology Department, April 1, 2008, College Station, Texas
14. **Di Giovanni, G. D.** “Environmental Microbiology and Waterborne Pathogens,” Course lecture for PH 2498 Environmental and Occupational Health Science, University of Texas – Houston School of Public Health El Paso Regional Campus, March 26, 2008, El Paso, Texas
15. **Di Giovanni, G. D.** “Waterborne *Cryptosporidium* – Assessing the Risk,” Marshfield Clinic, February 20, 2008, Marshfield, Wisconsin
16. **Di Giovanni, G. D.** “Bacterial Source Tracking: What Can It Deliver?” US Environmental Protection Agency Region 6 Confined Animal Feeding Operation (CAFO) Enforcement Workshop, January 16, 2008, Dallas, Texas
17. **Di Giovanni, G. D.** “Microbiological Quality of Rio Grande River Water and Treatment Options for Winter Return Flows,” El Paso Geological Society, September 29, 2007, El Paso, Texas
18. **Di Giovanni, G. D.** “Bacterial Source Tracking in Texas: What's Next?” USEPA Region 6 17th Annual Quality Assurance Meeting, October 16, 2007, Dallas, Texas

19. **Di Giovanni, G. D.** “*E. coli* Bacterial Source Tracking in Texas,” BESC 401 Bioenvironmental Microbiology course lecture, Texas A&M University Plant Pathology and Microbiology Department, April 12, 2007, College Station, Texas
20. **Di Giovanni, G. D.** “To BST, or Not to BST,” Texas A&M University Plant Pathology and Microbiology Departmental Seminar, September 27, 2006, College Station, Texas
21. **Di Giovanni, G. D.** “Waterborne Pathogens: Human Health Risks and Regulatory Challenges,” BESC 403 Sampling and Environmental Monitoring course lecture, Texas A&M University Plant Pathology and Microbiology Department, September 27, 2006, College Station, Texas
22. **Di Giovanni, G. D.** “Microbiological Water Quality Challenges in Texas,” Texas A&M University Chapter of the National Association of Environmental Professionals, September 26, 2006, College Station, Texas
23. **Di Giovanni, G. D.** “*Cryptosporidium* in water: Gauging the risks,” University of Texas School of Public Health, El Paso Regional Campus, February 23, 2006
24. **Di Giovanni, G. D.** and A. Michelsen. “Water Resource Challenges in the Paso del Norte Region,” South Carolina Department of Agriculture regional tour, January 24, 2006, El Paso, Texas
25. Casarez, E. C. and **G. D. Di Giovanni.** “Bacterial Source Tracking,” Texas Branch American Society of Agricultural Engineers, October 14, 2005, Grapevine, Texas
26. **Di Giovanni, G. D.** “To BST or Not to BST,” Northern California Branch American Society for Microbiology, October 7, 2005, San Ramon, California
27. **Di Giovanni, G. D.** “Texas BST Using ERIC-PCR, RiboPrinting, PFGE and ARA: Where Do We Go From Here?” Northern Gulf of Mexico Bacterial Source Tracking Workshop, sponsored by the USEPA Gulf of Mexico Program and University of Southern Mississippi – Hattiesburg, November 11 – 13, 2004, Biloxi, Mississippi
28. Assadian, N. W., **G. D. Di Giovanni,** J. P. Flores Margez and E. Jaramillo. “Human Health Risks From Contaminants in Reclaimed Juarez Valley Wastewater,” Paso del Norte Health Foundation – Center for Border Health Research, November 20, 2003, El Paso, Texas
29. **Di Giovanni, G. D.,** S. D. Pillai, J. Mott, W. Quintero-Betancourt, A. Sisk, A. Galindo, J. Hernandez. “Bacterial Source Tracking in Texas,” Southern Region Extension Water Quality Conference, October 20, 2003, Ruidoso, New Mexico
30. **Di Giovanni, G. D.** “*Cryptosporidium*: Number One on the Water Quality Bad Bug List,” The University of Texas at El Paso Department of Biological Sciences, February 22, 2002, El Paso, Texas

31. **Di Giovanni, G. D.** and L. S. Watrud. “The Influence of Plant Genotype and Soil on Rhizosphere Microbial Communities,” Midwestern Molecular Microbial Ecology Meeting, Center for Great Lakes Research, August 2 – 3, 1997, Milwaukee, Wisconsin
32. **Di Giovanni, G. D.** and L. S. Watrud. “Analysis of Rhizosphere Microbial Communities Using Community-Level Metabolic and Molecular Fingerprinting,” Oregon State University, Dept. of Botany and Plant Pathology, January 16, 1997, Corvallis, Oregon
33. **Di Giovanni, G. D.** and L. S. Watrud. “Use of community-level molecular (ERIC-PCR) and metabolic (Biolog) methods to characterize rhizosphere microbial communities,” Midwestern Molecular Microbial Ecology Meeting, Northwestern University, July 27 – 28, 1996, Evanston, Illinois

Invited Stakeholder and Research-User Group Meeting Presentations

1. **Di Giovanni, G. D.** “Bacterial Source Tracking Identification of Fecal Pollution Sources Impacting Buck Creek,” Texas State Soil and Water Conservation Board, October 27, 2009, Wellington, Texas
2. **Di Giovanni, G. D.** “*E. coli* Happens: Comparison of BST Techniques in Texas,” Environmental Protection Agency Region 6 Workshop on Bacterial Source Tracking, January 26 – 27, 2005, Dallas, Texas
3. **Di Giovanni, G. D.** and A. M. Michelsen. “Water Resources Issues and Research at the El Paso Texas A&M Research Center,” Fort Bliss Army International Officer School, November 7, 2003, El Paso, Texas
4. **Di Giovanni, G. D.** and A. M. Michelsen. “Water Resources Issues and Research in the El Paso Region,” Federal Agency Border Tour of the Rio Grande/Rio Bravo, International Boundary and Water Commission, November, 3, 2003, El Paso, Texas
5. **Di Giovanni, G. D.** “Laboratory Approaches to Analyze *E. coli* Bacteria for Bacterial Source Tracking,” Texas Farm Bureau and Texas State Soil and Water Conservation Board, July 17, 2003, Waco, Texas
6. **Di Giovanni, G. D.** “Strategy for Bacterial Source Tracking Projects in the State of Texas,” TWRI Bacterial Source Tracking workshop, May 6, 2003, Austin, Texas
7. **Di Giovanni, G. D.** and S. D. Pillai. “Waterborne Pathogens and Update on EPA-Mandated Monitoring for *Cryptosporidium*,” Small Water Supplier Pathogen and Pesticide Contaminant Workshops, Texas Cooperative Extension and Texas Water Resources Institute, September 24, 2002, Midland, Texas and October 23, 2002, Corpus Christi, Texas

8. **Di Giovanni, G. D.** “Meeting the Microbial Water Quality Challenges of the Paso del Norte Region,” The New Mexico – Texas Water Commission, March 14, 2002, Las Cruces, New Mexico
9. **Di Giovanni, G. D.,** R. Aboytes and M. W. LeChevallier. “A Method for Detecting Viable *Cryptosporidium* in Drinking Water,” IL Section AWWA, March 16, 2000, Springfield, Illinois
10. **Di Giovanni, G. D.** “Improvements to *Cryptosporidium* detection and viability determination,” American Water Works System Water Quality Roundtables. October 28 – 30 and December 2 – 4, 1997, Voorhees, New Jersey
11. **Di Giovanni, G. D.** and L. S. Watrud. “Evaluation of the influence of plant genotype and soil on rhizosphere microbial communities,” National Aeronautics and Space Administration (NASA), May 2, 1997, Kennedy Space Center, Florida
12. **Di Giovanni, G. D.** “A novel community-level approach to the characterization of microbial communities,” US DOE Savannah River Technology Center. July 15, 1996, Aiken, South Carolina
13. **Di Giovanni, G. D.** and N. A. Sinclair. “Community-level carbon source utilization analysis of soil microbial communities following exposure to 2,4-dichlorophenoxyacetate and introduction of *tfd* genes,” 3rd Annual Biolog, Inc. User’s Seminar, May 23, 1995, Washington, DC

UTSPH TEACHING ACTIVITIES

2015 – 2016

PH 2110 Overview of Environmental Health – Spring 2016
Instructor (100% Effort)

PHM and PHD 2230 Water Environment – Spring 2016
Instructor (100% Effort for Both Courses)

2014 – 2015

PH 2110 Overview of Environmental Health – Spring 2015
Instructor (100% Effort)

PHM and PHD 2230 Water Environment – Spring 2015
Instructor (100% Effort for Both Courses)

2013 – 2014

PH 2110 Overview of Environmental Health – Spring 2014
Co-Instructor (30% Effort) With Dr. C. Chappell

PHM and PHD 2230 Water Environment – Fall 2013

Instructor (100% Effort for Both Courses)

First offering of a new course which I developed from the ground up for masters and doctoral students.

PH 2280L Environmental Microbiology – Fall 2013

Co-Instructor (25% Effort) With Dr. C. Chappell

2012 – 2013

PH 2110 Overview of Environmental Health – Spring 2013

Co-Instructor (30% Effort) With Dr. C. Chappell

PH 2280L Environmental Microbiology – Fall 2012

Co-Instructor (25% Effort) With Dr. C. Chappell

2011 – 2012

PH 2280L Environmental Microbiology – Fall 2011

Co-Instructor (15% Effort) With Dr. C. Chappell

GRADUATE STUDENT COMMITTEES

Chair

- Joy Archuleta-Truesdale, Doctoral Degree, University of Texas at El Paso, Environmental Science and Engineering, degree awarded December 2013
- Laura Y. Sifuentes, Master of Public Health, University of Texas School of Public Health, El Paso Regional Campus, degree awarded May 2007

Co-Chair

- Cindy Lalancette, Doctoral Degree, École Polytechnique Montreal, Department of Civil, Geological and Mining Engineering, degree awarded May 2011

Committee Member/External Advisor

- Cynthia Talamantes, Master of Science (Chemistry-Biology), Universidad Autónoma de Ciudad Juárez, Departamento de Ciencias Químico Biológicas (Fall 2016 – present)
- Norma Ruecker, Doctor of Philosophy, University of Calgary, Dept. of Microbiology and Infectious Diseases, degree awarded May 2013

- Emily Martin, Doctor of Philosophy, Texas A&M University, Dept. of Soil and Crop Sciences, degree awarded December 2012
- Evangelina Olivas, Doctor of Philosophy, Universidad Juarez del Estado de Durango, Facultad de Agricultura y Zootecnia, degree awarded May 2012 (with Honors)
- Ajeegah Gideon, Doctor of Philosophy, University of Yaounde I Cameroon, Faculty of Science, degree awarded May 2007
- Ursula Sherrill, Master of Science, University of Texas at El Paso, Dept. Biological Sciences, degree awarded December 2007

UTSPH Thesis/Dissertation Committees

Member

- Jamie Pelletier, Doctor of Philosophy, Dept. of Epidemiology, Human Genetics and Environmental Sciences (Fall 2015 – present)

UTSPH Academic Advisor

- Asad Niazi, MD/MPH joint degree program with Texas Tech University (Fall 2016 – present)
- Cali Kirkham, MD/MPH joint degree program with Texas Tech University (Fall 2016 – present)
- Diego Peralta Rojas, Customized Master of Public Health (Fall 2016 – present)
- Cesar Nevar, Customized Master of Public Health (Fall 2015 – present)
- Mario Silva, Customized Master of Public Health (Spring 2015 – present)
- Laura Espinoza, Master of Public Health, Environmental and Occupational Health Sciences (Fall 2012 – Spring 2014); Recipient of 2013 – 2014 UTSPH Richard K. Severs Endowed Scholarship

MENTORING AND TRAINING OF STUDENTS AND RESEARCH ASSISTANTS

Postdoctoral Students

Joy Archuleta-Truesdale, PhD; Senior Research Assistant (January 2014 – present)

Karina Barrella, PhD; Postdoctoral Research Associate (December 2008 – August 2011). Co-founder and co-owner of Nerthus Lab, a startup environmental testing laboratory, in partnership with the University of Sao Paulo.

Elizabeth Casarez, PhD; Postdoctoral Research Associate (November 2004 – January 2007, June 2007 – present part-time)

Walter Betancourt, PhD; Postdoctoral Research Associate (September 2003 – July 2004). Went on to a postdoctoral research position at the University of Hawaii at Manoa Water Resources Research Center, then a faculty position at a research institute in Venezuela.

Graduate Students and Research Assistants

Alice Djotsa, UTSPH Graduate Teaching Assistant (Spring 2015 and Spring 2016)

Cesar Navar, UTSPH Graduate Research Assistant (October 2013 – May 2015)

Joy Archuleta-Truesdale, Research Assistant and UTEP PhD Student (October 2007 – December 2013)

Nicholas Garcia, Research Assistant (November 2006 – July 2009). Went on to a position as a Research Scientist for IQum, Inc., Marlborough, Massachusetts (2009 – 2011).

Laura Sifuentes, UT Public Health (El Paso Regional Campus) Graduate Student Worker (September 2005 – July 2007), UTEP Student Worker (June 2004 – September 2005). Received PhD in Spring '12 from the University of Arizona under Dr. Charles Gerba.

Joe Hernandez, Research Assistant (May 2005 – June 2006), EPCC RISE/UTEP Student Worker (February 2002 – May 2005). Currently a Microbiologist for the City of Scottsdale (AZ) Water Utility.

Patricia Garrido, Laboratory Technician (October 2004 – August 2005).

Anthony Sisk, Laboratory Technician (March 2003 – June 2005). Graduated from the Michigan State University College of Osteopathic Medicine.

Adriana Galindo, Laboratory Technician (June 2003 – August 2004). Currently a Quality Control Microbiologist with a food manufacturing plant in El Paso.

Nicolas Ronquillo, Laboratory Technician (January 2002 – July 2003). Went on to earn an MS degree in Forensic Science from University of North Texas and is currently a Forensic Scientist with the Texas Department of Public Safety Crime Laboratory in El Paso.

Undergraduate Students

Alex Saucedo, Texas A&M Biology summer intern (May 2011 – August 2011)

Elizabeth Espinoza, UTEP Student Worker (February 2007 – July 2010), graduated UT – Austin/El Paso Pharmacy School and currently a pharmacist in El Paso, Texas

Elizabeth Sifuentes, EPCC Student Worker (February 2008 – April 2009)

Michelle Sims, UTEP Bridges Student Worker (May 2002 – July 2003), UTEP Student Worker (August 2004 – February 2005). Currently Biology Laboratory Coordinator for El Paso Community College.

Delilah Rocha, UTEP Student Volunteer (October 2004 – February 2005)

Rebecca Hernandez, UTEP Bridges Student Worker (May 2004 – July 2004)

Paulina Gonzalez, EPCC RISE Student Worker (February 2002 – March 2002)

UTSPH SERVICE ACTIVITIES

- Chair of Faculty Council (2015 – present)
- Member, Faculty Council (2012 – 2015); Chair of Subcommittee on Transitioning Faculty (March 2013 – December 2014); Member of the Subcommittee on Faculty Diversity (January 2015 – August 2015)
- Member, EOHS Curriculum Committee (2012 – 2015)
- Member, Faculty Search Committee, El Paso Regional Campus, Assistant or Associate Professor (tenure-track) Epidemiology/Hispanic Health (August 2013 – March 2014)
- Reviewer, Pilot Projects Research Training Program, Southwest Center For Occupational And Environmental Health (SWCEOH), February 2013
- Provided technical assistance to Mary Ann Adkisson, UTHealth School of Dentistry on microbiological water quality issues for the new dental school clinic, August 2012

PROFESSIONAL SERVICE ACTIVITIES

Professional Service

- Trustee, American Water Works Association (AWWA), Water Quality and Technology Division (2015 – 2018). *In this national leadership role I participate in the development of AWWA policy and position statements on water quality-related issues, annual and specialty conference technical program development, and serve as a liaison to AWWA committees.*
- Planning Committee Member, American Water Works Association Water Quality and Technology Conference (2015 – 2016), November 13 – 17, 2016, Indianapolis, Indiana
- Moderator, Session “Monitoring for Microbes.” AWWA Water Quality and Technology Conference, November 13 – 17, 2016, Indianapolis, Indiana
- Moderator, Session “Method Improvements and Pitfalls.” AWWA Water Quality and Technology Conference, November 15 - 19, 2015, Salt Lake City, Utah
- Moderator, Session “*Cryptosporidium*.” American Water Works Association 6th International Symposium on Waterborne Pathogens, April 13 – 14, 2015, Savannah, Georgia
- Planning Committee Member, American Water Works Association 6th International Symposium on Waterborne Pathogens (2013 – 2015), April 13 – 14, 2015, Savannah, Georgia
- Workshop Organizer, “Waterborne *Cryptosporidium* and *Giardia*: Regulatory and Legal Issues,” 5th International *Giardia* and *Cryptosporidium* Conference, May 28, 2014, Uppsala, Sweden
- Organizer and Moderator, AWWA Special Topic Session “Beyond Pathogen Monitoring: The Microbiology of Drinking Water,” sponsored jointly by the Organisms in Water Committee and Microbiological Contaminants Research Committee, Water Quality Technology Conference, November 6, 2013, Long Beach, California
- Chair, 2012 Bacterial Source Tracking: State of the Science Conference, February 28 – 29, 2012, New Braunfels, Texas
- Planning Committee Member, 4th International *Giardia* and *Cryptosporidium* Conference, January 31 – February 3, 2012, Wellington, New Zealand
- Workshop Organizer and Instructor, AWWA Workshop “Real-Time Quantitative PCR: You've Got Questions,” sponsored by the Organisms in Water and Microbiological Contaminants Research Committee, Water Quality Technology Conference, November 13, 2011, Phoenix, Arizona
- Chair, Microbiological Contaminants Research Committee, American Water Works Association, 2006 – 2010

- Workshop Organizer and Instructor, AWWA Workshop “PCR-Based Genotyping of *Cryptosporidium* Recovered From Method 1623 Slides,” sponsored by the Organisms in Water and Microbiological Contaminants Research Committees, Water Quality Technology Conference, November 14, 2010, Savannah, Georgia
- Planning Committee Member, International Symposium on Waterborne Pathogens (2007 – 2010), American Water Works Association, May 2 – 4, 2010, Manhattan Beach, California
- Chair, Environmental Microbiology Session, Annual Meeting of the Rio Grande Branch American Society for Microbiology, February 27, 2010, El Paso, Texas
- Planning Committee Member, Global Conference on Microbiological Contaminants in Drinking Water (2008 – 2009), American Water Works Association and Singapore Public Utility Board, October 5 – 8, 2009, Singapore
- Chair, Environmental and Outbreak Investigations Session, 3rd International *Giardia* and *Cryptosporidium* Conference, Orvieto, Italy, October 11 – 15, 2009
- Vice-Chair, Microbiological Contaminants Research Committee, American Water Works Association, 2004 – 2006
- Workshop Organizer and Instructor, AWWA Workshop “How to Implement a PCR Based Method in an Environmental Laboratory,” sponsored by the Organisms in Water Committee, Water Quality Technology Conference, November 4, 2007, Charlotte, North Carolina
- Invited Panel Member, Source Water Protection Research Planning Workshop, AWWA and Water Environment Research Foundation (WERF), August 1 – 2, 2007, Denver, Colorado
- Organizer and Moderator, AWWA Special Topic Session “CCL Microbes: Status, Progress and Research Needs,” sponsored jointly by the Organisms in Water Committee and Microbiological Contaminants Research Committee, Water Quality Technology Conference, November 8, 2006, Denver, Colorado
- Workshop Organizer and Instructor, AWWA Workshop “USEPA Method 1623 Made Easy,” sponsored by the Microbiological Contaminants Research Committee, Water Quality Technology Conference, November 6, 2005, Quebec City, Quebec, Canada
- Workshop Organizer and Moderator, AWWA Workshop “Microbial Source Tracking,” sponsored by the Organisms in Water Committee, Water Quality Technology Conference, November 8, 2005, Quebec City, Quebec, Canada

- Invited Participant, Microbial Source Tracking Workshop, WERF, February 16 – 18, 2005, San Antonio, Texas.
- Workshop Organizer and Moderator, AWWA Workshop “Molecular Detection Techniques: Current Status and Limitations,” sponsored jointly by the Organisms in Water Committee and Microbiological Contaminants Research Committee, Water Quality Technology Conference, November 14, 2004, San Antonio, Texas
- Session Organizer and Moderator, American Society for Microbiology “Epidemiology, Genetics and Ecology of *Cryptosporidium*,” May 23, 2001, Orlando, Florida
- Workshop Organizer and Instructor, AWWA Workshop “Detection and Quantitation of Infectious *Cryptosporidium*,” Microbiological Contaminants Committee, Water Quality Technology Conference, October 31, 1999, Tampa, Florida
- Member of the AWWA Microbiological Contaminants Research Committee, 1998 – present
- Member of the AWWA Organisms in Water Committee, 2002 – present

Professional Association Membership

- American Society for Microbiology
- American Water Works Association

Technical Advisory Service

- Hosted and provided hands-on training to Dr. Peter Beatson, Sydney Water (Australia), on genotyping *Cryptosporidium* oocysts recovered from USEPA Method 1623 microscope slides and *Cryptosporidium* cell culture infectivity assays, May 8 – 15, 2015
- Hosted and provided hands-on training to Gustav Killander and Jenny Lindahl, Public Health Agency of Sweden (Folkhälsomyndigheten), on genotyping *Cryptosporidium* oocysts recovered from USEPA Method 1623 microscope slides, November 10 – 14, 2014
- Hosted and provided hands-on training to Sydney Rudko, University of Alberta School of Public Health graduate student under Dr. Patrick Hanington, on performing *Cryptosporidium* cell culture, June 6 – 12, 2014
- Hosted and provided hands-on training to Peiran Zhou, University of Washington doctoral student under Dr. Michael Dodd, on performing *Cryptosporidium* cell culture, September 8 – 13, 2013

- Hosted and provided hands-on training to Dr. Neil Leat, Rand Water South Africa, on genotyping *Cryptosporidium* oocysts recovered from USEPA Method 1623 microscope slides, July 31 – August 15, 2013
- Technical Reviewer, Infectious Diseases of Concern to Captive and Free ranging Wildlife in North America, 2nd Edition. American Association of Zoo Veterinarians (AAZV), Infectious Disease Committee, 2013
- Contributor and Technical Reviewer for U.S. Environmental Protection Agency Method 1623.1: *Cryptosporidium* and *Giardia* in Water by Filtration/IMS/FA, 2012
- Invited Scientist, ALS Melbourne Specialist Microbiology Department. Performed technical training and troubleshooting for the *Cryptosporidium* method used in Water Research Foundation Project 4284, as well as collaboration on cell culture methods for *Cryptosporidium* detection, April 30 – May 4, 2012, Melbourne, Australia
- Technical Review Committee Member, Manual M7: Problem Organisms in Water. American Water Works Association, 2011– 2013
- Advisory Committee Member for the Wisconsin State Laboratory of Hygiene *Cryptosporidium* Proficiency Testing Program, 2011 – present
- Hosted Mariam Hajj-Mohammad, École Polytechnique Montreal doctoral student under Dr. Sarah Dorner, and provided training on qPCR detection of *Bacteroidales*, August 9 – 11, 2011
- Workshop Moderator and Instructor, “A New Tool in Your Source Water Toolkit: *Cryptosporidium* Genotyping,” technology transfer workshop for EPA staff and water utility managers and laboratory staff, co-sponsored by the Water Research Foundation and the USEPA Office of Research and Development, April 12 – 14, 2011, Cincinnati, Ohio
- Invited Participant, Annual Meeting of the Chaire Industrielle CRSNG en Eau Potable (NSERC Industrial Chair in Drinking Water Treatment), École Polytechnique Montreal, January 27, 2011, Montreal, Canada
- Technical Reviewer for U.S. Environmental Protection Agency Draft Method 1615: Measurement of *Enterovirus* and *Norovirus* Occurrence in Water by Culture and qRT-PCR, 2010
- Technical Expert Reviewer for USEPA and Army Corps of Engineers, Audit Report on Environmental DNA Methodology, 2010. *Information from this report was used as evidence in a US Supreme Court case on the invasion of Asian carp into the Great Lakes*

- Joint Task Group Member and Contributing Author, *Standard Methods for the Examination of Water and Wastewater*, 22nd edition, Section 9711 Pathogenic Protozoa. American Public Health Association, American Water Works Association, Water Environment Foundation, Washington, DC. 2005 – 2010
- Invited workshop participant, Microbial Source Tracking in the Gulf of Mexico: Year 3 What Do We Know and Where Do We go from Here?, USEPA Gulf of Mexico Program/Gulf of Mexico Alliance, May 6 – 7, 2010, Tampa, Florida
- Organizer and host, International *Cryptosporidium* Genotyping Technology Transfer Workshop, funded by the Water Research Foundation, Texas AgriLife Research Center at El Paso, May 11 – 17, 2009
- Hosted Dr. Annie Locas, INRS-Institut Armand-Frappier, and provided training on virus quantitative PCR, March 30 – April 2, 2009
- Participant, USEPA Method Validation for “*Helicobacter pylori* in Drinking Water by TaqMan Quantitative Polymerase Chain Reaction (qPCR) Assay,” 2008 – 2009
- Participant, Gulf of Mexico Alliance Microbial Source Tracking Method Validation, 2008 – 2009
- Invited workshop participant, Microbial Source Tracking in the Gulf of Mexico: A Review of the Current Study and Directions Forward, USEPA Gulf of Mexico Program/Gulf of Mexico Alliance, February 12 – 13, 2009, St. Pete Beach, Florida
- Water Research Foundation, member of the Project 4133 Advisory Committee on “Identification of Genes Expressed During Excystation, Pre-Infection, and Early Infection as Markers of Infectivity in *Cryptosporidium*,” 2008 – 2011
- American Water Works Association Research Foundation, Member of the Project 4179 Advisory Committee on “Selecting and Standardizing the Most Appropriate Tool for Regulatory *Cryptosporidium* Genotyping,” 2008 – 2013
- Invited Participant, Expert Workshop for Developing a Strategy to Increase the Value of Regulatory *Cryptosporidium* Monitoring: *Cryptosporidium* Detection Method Research Needs, American Water Works Association Research Foundation, Golden, Colorado, August 4 – 6, 2008
- Invited Member, Drinking Water Microbiology Expert Group, American Water Works Association Research Foundation, 2008
- Hosted Dr. Terry Gentry and staff, Texas A&M University, and provided training on *E. coli* and *Bacteroidales* bacterial source tracking methods, May 21 – 23, 2008

- Invited Participant, USEPA Experts Scientific Workshop on Development, Validation, and Implementation of qPCR and PCR Methods for Use in Recreational Water, May 13 – 15, 2008, Cincinnati, Ohio
- Hosted Patricia Garrafa and Karina Barrella, Doctoral Interns from the Universidade de São Paulo, Brazil (Prof. Delores Mehnert’s students) for training and collaborative work on waterborne pathogen detection techniques, August – September, 2007
- Hosted Kevin Wagner, Texas A&M University, and provided training on *Bacteroidales* PCR analyses, August 22 – 23, 2007
- Invited Participant, USEPA Microbial Source Tracking International Workshop, July 9 – 11, 2007, Cincinnati, Ohio
- Invited Participant, USEPA Workshop on Influential Characteristics of Different *Cryptosporidium* Isolates: How to Describe an Isolate for Method 1623 Proficiency Testing, June 20, 2007, Cincinnati, Ohio
- Instructor, USEPA Method 1623 Detection of *Cryptosporidium* and *Giardia* in Water Training Workshops, USEPA Andrew W. Breidenbach Environmental Research Center, August 22 – 24, 2006 and June 19, 2007, Cincinnati, Ohio
- Appointed Member, Texas Bacterial TMDL Task Force, TCEQ, TSSWCB and TWRI (2006 – 2007)
- Invited Participant, Northern Gulf of Mexico Bacterial Source Tracking Workshop, sponsored by the USEPA Gulf of Mexico Program and University of Southern Mississippi-Hattiesburg, December 6 – 9, 2006, Biloxi, Mississippi
- Hosted and provided hands-on technical training to Dr. Michele Prevost (École Polytechnique Montreal) and three of her research staff on performing *Cryptosporidium* cell culture, October 8 – 12, 2006
- Bacterial RiboPrinting Workshop for El Paso Community College Research Initiative for Scientific Enhancement (RISE) to the Challenge Program for minority students, May 11 – 12, 2005, Texas AgriLife Research Center at El Paso
- WateReuse Foundation, member of the Project Advisory Committee on the Development of a Guidance Document for Applying Sound Statistics for Exploring, Interpreting, and Presenting Microbiological Data Associated with Reclaimed Water Systems (WRF-04-012), 2005 – 2007
- Co-author of the first USEPA “Quality Assurance/Quality Control Guidance Manual for Laboratories Performing PCR Analyses on Environmental Samples” (EPA 815-B-04-001, 64 pages), 2004

- Hosted Jacqueline Lendrum, New York State Department of Health and University at Albany School of Public Health, for demonstration and training on *Cryptosporidium* cell culture, December 6 – 10, 2004
- Invited Participant, Cross-Border Research Focus Group, Hispanic Health Disparities Center and University of Texas School of Public Health, El Paso Regional Campus, November 30, 2004
- Hosted George Vaughn, Centers for Disease Control and Prevention and the University of Texas – Houston Health Sciences Center, for demonstration of real-time PCR detection of enteric viruses. November 8 – 9, 2004
- Water Environment Research Foundation, Member of the Project Supervisory Committee on “Biosolids Sample Processing for the Detection of Pathogens,” 2003 – 2005
- American Water Works Association Research Foundation, Member of the Project Advisory Committee on “Application of DNA Microarray Technology to Simultaneously Detect and Genotype Isolates of *Escherichia coli* O157:H7 and *Cryptosporidium parvum* in Water,” 2003 – 2004
- Member, expert panel for the Michigan State University and Environmental Protection Agency Workshop on a Virulence Factor Activity Relationship (VFAR) Database, May 23, 2003, Washington, DC
- Member of the American Water Works Association Research Foundation Project Advisory Committee on “Improved In Vitro Culture of *Cryptosporidium parvum*,” 2001 – 2004
- Member of the American Water Works Association Research Foundation Project Advisory Committee on “Integral Optimization of Ozone Disinfection Systems with Fluorescent-Dyed Polystyrene Microspheres,” 2000 – 2003
- Member of the Centers for Disease Control and Prevention (CDC) Expert Panel on the Development of Methods for Testing Drinking Water for Bioterrorism Agents. August 23, 2001, Atlanta, Georgia
- Member of the Centers for Disease Control and Prevention (CDC) Working Group on Waterborne Cryptosporidiosis, 1999 – 2001
- Member of the American Water Works Association Research Foundation Project Advisory Committee on “Novel Methods to Determine *Cryptosporidium* and *Giardia* Viability,” 1997–1999

Reviewer

- Peer Review Panel, Technical Qualifications Board (TQB), US Environmental Protection Agency, 2016

- Review Panel, The University of Wisconsin Water Resources Institute (WRI) Groundwater Research and Monitoring FY17 Proposals, 2016
- Reviewer, Guidelines for Canadian Drinking Water Quality: Enteric Protozoa: *Giardia* and *Cryptosporidium* in Drinking Water, Health Canada, 2015
- Reviewer, Division Q Environmental and General Applied Microbiology abstracts for the 115th General Meeting of the American Society for Microbiology, 2015
- Reviewer, Environment and Water Industry Programme Office, National Research Foundation Singapore, 2010
- Reviewer, Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Grant program, 2009
- Review Panel Member, USEPA STAR Graduate Research Fellowship Program, Washington, DC, 2006
- Proposal Reviewer, USDA CSREES Multi-State Bacterial Source Tracking Project, 2005
- Reviewer for U.S. Environmental Protection Agency Standardized Analytical Methods for Use During Homeland Security Events (SAM), Draft Guidance Manual, 2004
- Proposal Reviewer, U.S. Civilian Research and Development Foundation (CRDF) for the Independent States of the Former Soviet Union, 2004
- Proposal Reviewer, Cornell/BARD, United States - Israel Binational Agricultural Research & Development Fund, Cornell University, 2004
- Proposal Reviewer, Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET), University of New Hampshire, 2003
- Ad hoc reviewer for the following journals: Applied and Environmental Microbiology, Environmental Science and Technology, Ciencia en la Frontera: Revista de Ciencia y Tecnología de la Universidad Autónoma Ciudad Juárez (UACJ), Journal of the American Water Works Association, International Journal of Environmental Health Research, Journal of Applied Microbiology, Journal of Clinical Microbiology, Journal of Environmental Quality, Journal of Industrial Microbiology & Biotechnology, Journal of Parasitology, Journal of Virological Methods, Journal of Water and Health, Journal of Water Supply: Research and Technology - AQUA, Molecular Phylogenetics and Evolution, PLOS ONE, Pathogens, Phytopathology, Trends in Parasitology, Vector-Borne and Zoonotic Diseases, and Water Research

Texas A&M University Service

- Appointed Member of the Texas AgriLife Faculty Fellows Review Panel (2009 – 2010)
- College of Agriculture and Life Sciences Peer Review Committee, Texas A&M University (2008 – 2010)
- Plant Pathology and Microbiology Department Head Search Committee, Texas A&M University (2008 – 2009)
- Vice Chancellor's Awards in Excellence Committee, Texas A&M University (2006 – 2007)
- Texas AgriLife Research Center at El Paso Water Resources and Salinity Management Faculty Search Committee (2002 – 2004 and 2005 – 2006)
- Environmental Microbiologist Faculty Search Committee, Plant Pathology and Microbiology Department (2004 – 2005)
- Chair, Texas AgriLife Research Center at El Paso Safety Committee (2003 – 2011)
- Chair, Texas AgriLife Research Center at El Paso Web Design Committee (2002 – 2011)
- Plant Pathology and Microbiology Department Faculty Retreat Committee (2004)
- Texas AgriLife Research Center at El Paso Urban Landscape Water Conservation Faculty Search Committee (2002 – 2004)

Community Service

- Technical assistance, algae control for Swan Lake in the Tennis West Subdivision, El Paso, Texas, 2010, 2011, 2012
- Intel International Science and Engineering Fair (ISEF) Mentor for Honors student Madeline Lionberger, Bowie High School, Austin Texas, November 2009.
- Elementary School Science Fair Project Mentor for Xavier and Robert Dicks, Atlanta, Georgia, January 2007.
- High School Science Fair Mentor for Ali Granryd, Austin, Texas, October 2006.
- "What's in our water?" Talk given to 6th grade science students at Hornedo Middle School, El Paso, TX. May 13, 2005.

- “What is it like being a microbiologist?” Talk given to 6th grade science students at Hornedo Middle School, El Paso, TX. March 7, 2003.

EXAMPLES OF COLLABORATION WITH THE UNIVERSITY OF TEXAS AT EL PASO (UTEP)

- Graduate Faculty, 2016 – present. University of Texas at El Paso, Department of Public Health Sciences; Type III membership which allows chairing of UTEP student MPH thesis committees.
- KTEP National Public Radio interview, University of Texas at El Paso “100 @ 100: Research for Our Next Century, George Di Giovanni.” Aired October 2, 2014.
- Member of the UTEP Border Biomedical Research Center <http://science.utep.edu/bbrc/faculty>
Participation has included attending research group meetings, providing research summaries, current biographical sketch, and lists of grants and publications in support of their continued funding (2012 – 2016)
- Presented the invited seminar “Bacterial Source Tracking Identification of Water Fecal Pollution Sources” for the UTEP Ecology and Evolutionary Biology Graduate Student Seminar Series, March 6, 2013
- Hosted UTEP graduate student Yolanda McDonald in my lab for performing bacteriological analyses of water for her MS thesis (October 2011 – January 2012)

EXAMPLES OF INTERNATIONAL ACTIVITIES

Invited International Presentations – 18 career total

Co-Chair/Committee Member/External Advisor on Graduate Committees – 4 PhD students, 1 MS student

Advisor for International Postdoctoral Students – 2 students

Planning Committee Member, International Symposium on Waterborne Pathogens (2013 – 2015), American Water Works Association, April 13 – 14, 2015, Savannah, Georgia

Workshop Organizer, “Waterborne *Cryptosporidium* and *Giardia*: Regulatory and Legal Issues,” 5th International *Giardia* and *Cryptosporidium* Conference, May 28, 2014, Uppsala, Sweden

Planning Committee Member, 4th International *Giardia* and *Cryptosporidium* Conference (2010 – 2012), January 31 – February 3, 2012, Wellington, New Zealand

Planning Committee Member, International Symposium on Waterborne Pathogens (2007 – 2010), American Water Works Association, May 2 – 4, 2010, Manhattan Beach, California

Planning Committee Member, Global Conference on Microbiological Contaminants in Drinking Water (2008 – 2010), American Water Works Association and Singapore Public Utility Board, October 5 – 8, 2009, Singapore

Moderator, Environmental and Outbreak Investigations Session, 3rd International *Giardia* and *Cryptosporidium* Conference, Orvieto, Italy, October 11 – 15, 2009

Selected International Collaborations

Drinking Water Industry and Public Health Agencies

- Reviewer, Guidelines for Canadian Drinking Water Quality: Enteric Protozoa: *Giardia* and *Cryptosporidium* in Drinking Water, Health Canada, 2015
- Hosted and provided hands-on training to Dr. Peter Beatson, Sydney Water (Australia), on genotyping *Cryptosporidium* oocysts recovered from USEPA Method 1623 microscope slides and *Cryptosporidium* cell culture infectivity assays, May 8 – 15, 2015
- Hosted and provided hands-on training to Gustav Killander and Jenny Lindahl, Public Health Agency of Sweden (Folkhälsomyndigheten), on genotyping *Cryptosporidium* oocysts recovered from USEPA Method 1623 microscope slides, November 10 – 14, 2014
- Provided technical assistance on genotyping *Cryptosporidium* oocysts recovered from water regulatory microscope slides to the UK *Cryptosporidium* Reference Unit, Public Health Wales (Drs. Chalmers and Elwin); Public Health Agency of Sweden (Folkhälsomyndigheten) (Dr. Arrighi and Anette Hansen); and the *Cryptosporidium* Reference Laboratory, Ireland (Carolyn Read), October 2014 – present
- Hosted and provided hands-on training to Neil Leat, Rand Water South Africa. Provided Rand Water with technical assistance on genotyping *Cryptosporidium* oocysts recovered from USEPA Method 1623 microscope slides (hosted in my lab July 31 – August 15, 2013)
- Monique Grundlingh, Rand Water South Africa. Provided Rand Water with USEPA Method 1623 technical assistance (2005 – present)
- Invited Scientist, ALS Melbourne Specialist Microbiology Department. Performed technical training and troubleshooting for the *Cryptosporidium* method used in Water Research Foundation Project 4284, as well as collaboration on cell culture methods for *Cryptosporidium* detection. April 30 – May 4, 2012, Melbourne, Australia.
- Principal Investigator for Water Research Foundation (WRF) Projects 4099 and 4284. Conducted an “International Technology Transfer Workshop on a *Cryptosporidium* Speciation Protocol for Water Quality and Utility Laboratories” at the Texas AgriLife Research Center at El Paso, May 11 – 15,

2009. The workshop had 14 participants from 10 labs in 6 countries and represented a diverse group of academic, water industry and public health entities. Funding for the workshop was provided by the Water Research Foundation, US Environmental Protection Agency, Drinking Water Quality Regulator for Scotland, Scottish Water Utility, UK Drinking Water Inspectorate, and Ecowise Environmental/ALS Water Resource Group, Australia. An international method evaluation was conducted in 2011 – 2013 with the participation of 26 analysts from 13 labs located in Scotland, Wales, England, Australia, Canada, South Africa, and the US. The peer-reviewed project reports were published in 2010 and 2014.

- Dr. Peter Beatson, Sydney Water Australia. Provided Sydney Water with technical assistance on *Cryptosporidium* cell culture infectivity assays and identification of organisms recovered by USEPA Method 1623 (2010 – present)
- Visited the Scottish Parasite Diagnostic Laboratory (Dr. Huw Smith's laboratory) to receive hands-on training in genotyping of *Cryptosporidium* recovered from slides, Glasgow, Scotland, September 23 – 27, 2008

International Doctoral/Postdoctoral Students

- Hosted and provided hands-on training to Sydney Rudko, University of Alberta School of Public Health graduate student under Dr. Patrick Hanington, on performing *Cryptosporidium* cell culture, June 6 – 12, 2014
- Hosted Mariam Hajj-Mohammad, École Polytechnique Montreal doctoral student under Dr. Sarah Dorner, and provided training on qPCR detection of *Bacteroidales*, August 9 –11, 2011
- Hosted Dr. Annie Locas, INRS-Institut Armand-Frappier, and provided training on virus quantitative PCR, March 30 – April 2, 2009
- Hosted Patricia Garrafa and Karina Barrella, Doctoral Interns from the Universidade de São Paulo, Brazil (Prof. Delores Mehnert's students) for training and collaborative work on waterborne pathogen detection techniques, August – September, 2007

International University Faculty

- Drs. Juan Pedro Flores and Evangelina Olivas, Universidad Autonoma de Ciudad Juarez, Mexico. Collaboration on the genotyping of *Cryptosporidium* and *Giardia*, October 2014 – present (Dr. Olivas retired in 2015, but retains a position similar to Professor Emeritus)

- Provided hands-on technical training to Dr. Michele Prevost (École Polytechnique Montreal) and three of her research staff on performing *Cryptosporidium* cell culture, October 8 – 12, 2006 (listed previously). Collaborative work continues with Dr. Prévost's group. I also served as Co-Chair with Dr. Prévost on a Polytechnique Montreal student's PhD committee (Lalancette). Two co-authored journal articles from this collaborative work have already been published and more are anticipated.
- Prof. Annie-Claude Nsom, University of Yaounde I, Cameroon. Provided Prof. Nsom's lab with USEPA Method 1623 technical assistance, 2006. Served as an external advisor on Ajeegah Gideon's PhD committee. A co-authored journal article was published in 2010 (listed previously), representing the first *Cryptosporidium* and *Giardia* water quality study performed in Cameroon.
- Dr. Esaul Jaramillo and Dr. Juan Pedro Flores, Universidad Autonoma de Ciudad Juarez, Mexico. Co-authored peer-reviewed journal articles (listed previously)
- Cristobal Chaidez, Centro de Investigacion en Alimentacion y Desarrollo, Culiacan, Mexico. Collaborator on a USDA NRI proposal, 2006 and 2009