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EDUCATION

<u>Degree</u>	<u>Institution</u>	<u>Field</u>	<u>Dates</u>
Ph.D.	Texas A&M University	<i>Chemical Oceanography</i>	1991-1996
M.Sc.	Universidad Simón Bolívar	<i>Analytical Chemistry</i>	1986-1989
B.S.	Universidad Simón Bolívar	<i>Chemistry</i>	1981-1986

FULL-TIME ACADEMIC EXPERIENCE

<u>Institution</u>	<u>Rank</u>	<u>Field</u>	<u>Dates</u>
Florida International University	Professor	Environmental Analytical Chemistry	8/14-present
Florida International University	Associate Professor	Environmental Analytical Chemistry	8/04-8/14
Florida International University	Assistant Professor	Environmental Analytical Chemistry	2/98-8/04
Texas A&M University	Lab Manager- Research Associate	Environmental Analytical Chemistry	9/96-12/97
Texas A&M University	Research Assistant	Chemical Oceanography	6/91-8/96

NON-ACADEMIC EXPERIENCE

<u>Institution</u>	<u>Title</u>	<u>Dates</u>
Freshwater Resource Division Institute of Environment (IoE)	Director	8/20-present
Institute of Environment (IoE) Florida International University	Associate Director	3/18-present
Southeast Environmental Research Center (SERC) Florida International University	Director	3/18-8/20

Southeast Environmental Research Center (SERC)
Florida International University

Associate Director 5/16-2/18

PART-TIME ACADEMIC EXPERIENCE

<u>Institution</u>	<u>Rank</u>	<u>Field</u>	<u>Dates</u>
Universidad Simón Bolívar	Instructional Faculty	<i>Chemistry</i>	8/89-5/91

PUBLICATIONS IN DISCIPLINE

H-Index 45, Citations 5294

Refereed Publications (out of 130)

*Students are underlined

1. Benjamin P de Jourdan, David L Daniel, Piero Gardinali, Cesar E Ramirez, Chris J Langdon, Emily Stefansson, Thomas F Parkerton, and William A Stubblefield (2025) Toxicity of Six Representative Polycyclic Aromatic Compounds in Five Marine Test Species, *Science of The Total Environment*, Accepted 4/28/2025. STOTEN-D-24-47013R2.
2. Ceccopieri, Milena, Kassidy Troxell, Mark Stephens, Yan Ding, and Piero Gardinali. "Distribution, quality assessment and historical variation of trace metals in sediments from Deering Bay waterways (South Florida)." *Marine Pollution Bulletin* 216 (2025): 118052.
3. Paduani, Melinda, Michael Ross, and Piero Gardinali. "Microplastic Filtration by a Coastal Mangrove Wetland as a Novel Ecosystem Service." *Microplastics* 4, no. 2 (2025): 15.
4. Zandaryaa, S., Fares, A., Eckstein, G., Buono, R.M., Trudeau, M., Nickum, J.E., Xia, X., Rahman, A., Korndewal, M., Montagner, C.C. and Gardinali, P.R., 2025. Science-Based Policy Recommendations for Managing Emerging Pollutants: Protecting Water Quality for the Health of People and the Environment. *Emerging Pollutants*, p.487.
5. Dias Cappelini, Luciana Teresa, Olutobi Daniel Ogunbiyi, Vinícius Guimarães Ferreira, Mymuna Monem, Carolina Cuchimaque Lugo, Monica Beatriz Perez, Piero Gardinali, Florence George, Daniel M. Bagner, and Natalia Quinete. "Assessing Variability in Children's Exposure to Contaminants in Food: A Longitudinal Non-Targeted Analysis Study in Miami, Florida." *Journal of Xenobiotics* 15, no. 1 (2025): 11.
6. Batt, A. L., Brunelle, L. D., Quinete, N. S., Stebel, E. K., Ng, B., Gardinali, P., ... & Mills, M. A. (2024). Investigating the chemical space coverage of multiple chromatographic and ionization methods using non-targeted analysis on surface and drinking water collected using passive sampling. *Science of The Total Environment*, 955, 176922

7. Troxell, K., Schonhoff, B., Kershaw, M., Ceccopieri, M., Crowl, T., & Gardinali, P. (2024). Near real-time monitoring of the Biscayne Bay Watershed (South Florida, USA) and major tributaries by water quality research buoys. *Science of The Total Environment*, 955, 177203.
8. Troxell, K., Ceccopieri, M., and Gardinali, P. R., (2024). Unraveling the chemical fingerprint of the Miami River sources: Insights from high-resolution mass spectrometry and nontarget analysis. *Chemosphere*, 349, 140863.
9. Ogunbiyi, O., Dias Cappelini, L. T., Monem, M., Mejias, E., George, F., Gardinali, P., ... & Quinete, N. S. (2024) Innovative Non-Targeted Screening Approach Using High-Resolution Mass Spectrometry for Identification of Specific Tracers of Soil and Dust Exposure in Children. *Journal of Hazardous Materials*, 469, 134025
10. Li, X., Cui, D., Ng, B., Ogunbiyi, O. D., de Navarro, M. G., Gardinali, P., & Quinete, N. (2023). Non-targeted analysis for the screening and semi-quantitative estimates of per- and polyfluoroalkyl substances in water samples from South Florida environments. *Journal of Hazardous Materials*, 452, 131224.
11. Griffiths, Z. G., Miller, J. I., Campa, M. F., Putt, A., Joyner, D., Pelz, O. X., ... & Hazen, T. C. Comparing the Response of the Indigenous Microbial Community to Native Crude Oil Amendment in Oxidic versus Hypoxic Conditions. *Frontiers in Microbiomes*, 2, 1270352.
12. Cui, D., Cox, J., Mejias, E., Ng, B., Gardinali, P., Bagner, D. M., & Quinete, N. (2023). Evaluating non-targeted analysis methods for chemical characterization of organic contaminants in different matrices to estimate children's exposure. *Journal of Exposure Science & Environmental Epidemiology*, 1-13.
13. Esmailian, A., Quinete, N., Gardinali, P. R., & O'Shea, K. (2023). The effects of soil properties and sorbent amendments on immobilization of perfluorooctane sulfonate (PFOS) in contrasting soils: Experimental and Numerical study. *Journal of Environmental Chemical Engineering*, 109509.
14. Troxell, Cassidy, Brian Ng, Ingrid Zamora-Ley, and Piero Gardinali. "Detecting Water Constituents Unique to Septic Tanks as a Wastewater Source in the Environment by Nontarget Analysis: South Florida's Deering Estate Rehydration Project Case Study." *Environmental Toxicology and Chemistry* 41, no. 5 (2022): 1165-1178.
15. Ng, Brian, Natalia Quinete, and Piero Gardinali. "Differential organic contaminant ionization source detection and identification in environmental waters by nontargeted analysis." *Environmental toxicology and chemistry* 41, no. 5 (2022): 1154-1164.

16. Peter, K. T., Phillips, A. L., Knolhoff, A. M., Gardinali, P. R., Manzano, C. A., Miller, K. E., ... & Sobus, J. R. (2021). "Nontargeted Analysis Study Reporting Tool: A Framework to Improve Research Transparency and Reproducibility". *Analytical chemistry*, 93(41), 13870-13879
17. Place, Benjamin J., Elin M. Ulrich, Jonathan K. Challis, Alex Chao, Bowen Du, Kristin Favela, Yong-Lai Feng et al. "An Introduction to the Benchmarking and Publications for Non-Targeted Analysis Working Group." *Analytical Chemistry* 93, no. 49 (2021): 16289-16296.
18. Ramirez, Cesar E., Natalia Quinete, Luisa Rojas de Astudillo, Luis E. Arroyo-Mora, Douglas Seba, and Piero Gardinali. "Elemental composition of airborne particulate matter from coastal South Florida area influenced by African dust events." *Aeolian Research* 54 (2022): 100774.
19. Cooman, Travon, Brianna Hoover, Brianna Sauv e, Sadie A. Bergeron, Natalia Quinete, Piero Gardinali, and Luis E. Arroyo. "The metabolism of valeryl-fentanyl using human liver microsomes and zebrafish larvae." *Drug Testing and Analysis* (2022).
20. Ng, B., Quinete, N., Maldonado, S., Lugo, K., Purrinos, J., Brice o, H., & Gardinali, P. (2021). Understanding the occurrence and distribution of emerging pollutants and endocrine disruptors in sensitive coastal South Florida Ecosystems. *Science of The Total Environment*, 757, 143720.
21. Henderson, A., Ng, B., Landeweer, S., Quinete, N., & Gardinali, P. (2020). Assessment of Sucralose, Caffeine and Acetaminophen as Anthropogenic Tracers in Aquatic Systems Across Florida. *Bulletin of Environmental Contamination and Toxicology*, 105(3), 351-357.
22. Quinete, N., Hauser-Davis, R. A., Lemos, L. S., Moura, J. F., Siciliano, S., & Gardinali, P. R. (2020). Occurrence and tissue distribution of organochlorinated compounds and polycyclic aromatic hydrocarbons in Magellanic penguins (*Spheniscus magellanicus*) from the southeastern coast of Brazil. *Science of The Total Environment*, 749, 141473.
23. Charriez, K. L., Lemos, L. S., Carrazana, Y., Rodr guez-Casari go, J. A., Eirin-Lopez, J. M., Hauser-Davis, R. A., ... & Quinete, N. (2020) Application of an Improved Chloroform-Free Lipid Extraction Method to Staghorn Coral (*Acropora cervicornis*) Lipidomics Assessments. *Bulletin of Environmental Contamination and Toxicology*, 1-8.
24. Presa-Reyes, M., Bogosian, B., Schonhoff, B., Jerauld, C., Moreyra, C., Gardinali, P., & Chen, S. C. (2020, August). A Water Quality Research Platform for the Near-real-time Buoy Sensor Data. In *2020 IEEE 21st International Conference on Information Reuse and Integration for Data Science (IRI)* (pp. 287-294). IEEE.

25. Abdullah, A. M., Quinete, N. S., Gardinali, P., & O'Shea, K. (2020). Investigation of Ultrasonically Induced Degradation of Tris (2-chloroethyl) Phosphate in Water. *Journal of Environmental Engineering*, 146(10), 04020117.
26. Ng, B., Quinete, N., & Gardinali, P. R. (2020). Assessing accuracy, precision and selectivity using quality controls for non-targeted analysis. *Science of The Total Environment*, 136568. <https://doi.org/10.1016/j.scitotenv.2020.136568>
27. Padín, Nicole Díaz, Concepción Rodríguez Fourquet, Yuleika Martínez Castillo, Piero Gardinali, and Natalia Soares Quinete. "Cuantificación de los ftalatos en los sedimentos de la Reserva Natural Humedal Punta Tuna en Maunabo, Puerto Rico." *Manglares de América* (2019): 112-123. ISSN 2600-5891. Extended Conference Proceedings.
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29. Hansen, B. H., Olsen, A. J., Salaberria, I., Altin, D., Beathe Øverjordet, I., Gardinali, P., Booth, A., and Nordtug, T. (2019) Partitioning of PAHs between Crude Oil Microdroplets, Water, and Copepod Biomass in Oil-in-Seawater Dispersions of Different Crude Oils. *Environmental Science & Technology*. DOI:10.1021/acs.est.8b04591
30. Echols, B. S., Langdon, C. J., Stubblefield, W. A., Rand, G. M., and Gardinali P. R. (2019) A Comparative Assessment of the Aquatic Toxicity of Corexit 9500 to Marine Organisms. *Archives of Environmental Contamination and Toxicology*. 77.1: 40-50.
31. Quinete, N., Castro, J., Zamora-Ley, I., Fernandez, A., Rand, G., & Gardinali, P. (2018) Development of a Management Tool for Environmental Assessment of Organonitrogen Pesticides. In *Ecotoxicology; Perspectives on Key Issues*. Edited By Rachel Ann Hauser-Davis, Thiago Estevam Parente. Taylor & Francis.
32. Villar, G. V., Quinete, N., & Gardinali, P. R. (2018). Using Polydimethylsiloxane (PDMS) Pellets to Create an Absorption Model for the Determination of Equilibrium Concentrations of Dissolved Contaminants in the Aquatic Environment. *Bulletin of environmental contamination and toxicology*, 101(3), 349-357.
33. Hu, P., Dubinsky, E.A., Probst, A.J., Wang, J., Sieber, C.M., Tom, L.M., Gardinali, P.R., Banfield, J.F., Atlas, R.M. and Andersen, G.L., (2017). Simulation of Deepwater Horizon oil plume reveals substrate specialization within a complex community of hydrocarbon degraders. *Proceedings of the National Academy of Sciences*, 114(28), pp.7432-7437.
34. Benigni, P., Marin, R., Sandoval, K., Gardinali, P., & Fernandez-Lima, F. (2017). Chemical Analysis of Water-accommodated Fractions of Crude Oil Spills Using TIMS-FT-ICR MS. *JoVE* (Journal of Visualized Experiments), (121), e55352-e55352.
35. Campeão, M. E., Reis, L., Leomil, L., de Oliveira, L., Otsuki, K., Gardinali, P., &

- Thompson, C. C. (2017). The Deep-Sea Microbial Community from the Amazonian Basin Associated with Oil Degradation. *Frontiers in microbiology*, 8, 1019.
36. Benigni, P., Sandoval, K., Thompson, C. J., Ridgeway, M. E., Park, M. A., Gardinali, P., & Fernandez-Lima, F. (2017). Analysis of photoirradiated water accommodated fractions of crude oils using tandem TIMS and FT-ICR MS. *Environmental Science & Technology*, 51(11), 5978-5988.
 37. Sandoval, K., Ding, Y., & Gardinali, P. (2017). Characterization and environmental relevance of oil water preparations of fresh and weathered MC-252 Macondo oils used in toxicology testing. *Science of the Total Environment*, 576, 118-128.
 38. Wang, J., Sandoval, K., Ding, Y., Stoeckel, D., Minard-Smith, A., Andersen, G., Dubinsky, D., Atlas, R., and Gardinali, P., (2016) "Biodegradation of dispersed Macondo crude oil by indigenous Gulf of Mexico microbial communities", *Science of the Total Environment*, 557-558: 453-468.
 39. B. Echols , A. Smith, P. R. Gardinali, G. M. Rand (2016) Chronic Toxicity of Unweathered and Weathered Macondo Oils to Mysid Shrimp (*Americamysis bahia*) and Inland Silversides (*Menidia beryllina*). *Archives of Environmental Contamination and Toxicology* 71(1), 78-86.
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 41. Huba A., Gardinali, P., (2016) "Characterization of a crude oil weathering series by ultrahigh-resolution mass spectrometry using multiple ionization modes". *Science of the Total Environment*, 563-564:600-610
 42. Gassie, L. W., Englehardt, J. D., Wang, J., Brinkman, N., Garland, J., Gardinali, P., & Guo, T. (2016). Mineralizing urban net-zero water treatment: Phase II field results and design recommendations. *Water Research*, 105, 496-506.
 43. J. Aceña, N. Heuett, P. Gardinali, S. Pérez (2016) "Suspect Screening of Pharmaceuticals and Related Bioactive Compounds, Their Metabolites and Their Transformation Products in the Aquatic Environment, Biota and Humans Using LC-HR-MS Techniques" In: Sandra Pérez, Peter Eichhorn and Damià Barceló, Editor(s), *Comprehensive Analytical Chemistry*, Elsevier, 2016, Volume 71, Pages 357-378.

44. Echols, B.S., Smith, A.J., Gardinali, P.R. and Rand, G.M. (2016) "The use of ephyrae of a scyphozoan jellyfish, *Aurelia aurita*, in the aquatic toxicological assessment of Macondo oils from the Deepwater Horizon incident", *Chemosphere*, 144:1893-1900.
45. Echols, B.S., Smith, A.J., Gardinali, P.R. and Rand, G.M. (2016) "An Evaluation of Select Test Variables Potentially Affecting Acute Oil Toxicity", *Archives of Environmental Contamination and Toxicology*, 70(2):392-405.
46. Benigni, P., DeBord, D., Thompson, C., Gardinali, P., and Francisco Fernandez-Lima (2016) "Increasing Polyaromatic Hydrocarbon (PAH) Molecular Coverage during Fossil Oil Analysis by Combining Gas Chromatography and Atmospheric-Pressure Laser Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry (FT-ICR MS)", *Energy & Fuels*, 30 (1), 196-203.
47. Fernandez, M.V., and Gardinali, P. (2016) "Risk Assessment of Triazine Herbicides in Surface Waters and Bioaccumulation of Irgarol and M1 by Submerged Aquatic Vegetation in Southeast Florida". *Science of the Total Environment*, 541:1556-1571.
48. Klaus, J. S., Kourafalou, V. H., Piggot, A. M., Reniers, A., Kang, H., Kumar, N., ... & Toborek, M. (2016). Potential Impacts of PCBs on Sediment Microbiomes in a Tropical Marine Environment. *Journal of Marine Science and Engineering*, 4(1), 13.
49. Kim, C., Panditi, V., Gardinali, P., Varma, R., Kim, H., and Sharma, V. (2015) "Ferrate promoted oxidative cleavage of sulfonamides: Kinetics and product formation under acidic conditions", *Chemical Engineering Journal*, 279: 307-316.
50. N. Heuett, C. Ramirez, A. Fernandez and P. R. Gardinali (2015) "Analysis of drugs of abuse by online SPE-LC high resolution mass spectrometry: communal assessment of consumption" *Science of the Total Environment* 511: 319-330
51. Heuett, N.; Rani, S.; Gardinali, P.R. (2015) "Understanding the magnitude of emergent contaminant releases through target screening and metabolite identification using high resolution mass spectrometry: illicit drugs in raw sewage influents" *Journal of Hazardous Materials*. 282(23) 41-50.
52. Aceña, J.; Pérez, S.; Heuett, N.; Gardinali, P.; Abad, J.; Eichhorn, P.; Barceló, D. (2014) "Structure elucidation of phototransformation products of unapproved analogs of the erectile dysfunction drug sildenafil in artificial freshwater with UPLC-Q Exactive-MS" *Journal of Mass Spectrometry*. 49 (12):1279-1289.
53. Ramirez, C. ; Bellmund, S.; Gardinali, P. R. (2014) "A simple method for routine monitoring of glyphosate and its main metabolite in surface waters using lyophilization and LC-FLD+MS/MS. Case study: canals with influence on Biscayne National Park." *Science of the Total Environment*, 496, 389-401.

54. Jiang, W.; Chen, L.; Batchu, S.; Gardinali, P.R., Jasa, L.; Marsalek, B.; Zboril, R.; Dionysiou, D.; O'Shea, K.; and Sharma, V. (2014) "Oxidation of Microcystin-LR by Ferrate(VI): Kinetics, Degradation Pathways, and Toxicity Assessments". *Environmental Science & Technology*, 48 (20), 12164-12172.
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60. Quinete, N.; Castro, J.; Fernandez, A.; Zamora-Ley, I. M.; Rand, G. M.; Gardinali, P. R., (2013) "Occurrence and Distribution of Endosulfan in Water, Sediment, and Fish Tissue: An Ecological Assessment of Protected Lands in South Florida". *Journal of Agricultural and Food Chemistry* 61, (49), 11881-11892.
61. S. Batchu, V. Panditi, K. O'Shea and P. R. Gardinali (2013) "Photodegradation of selected antibiotics in natural waters by simulated solar radiation: Implications for their environmental fate". *Science of the Total Environment*. 470-471(0), 299-310 .
62. S. Rani Batchu, N. Quinete, V. R. Panditi and P. R Gardinali (2013) "Online solid phase extraction liquid chromatography tandem mass spectrometry (SPE-LC-MS/MS) method for the determination of Sucralose in reclaimed and drinking waters and its photo degradation in natural waters from South Florida" *Chemistry Central Journal*. 7:141
63. J. Wang and P. R. Gardinali. (2013). "Uptake and Depuration of Pharmaceuticals in Reclaimed Water by Mosquito Fish (*Gambusia Holbrooki*): A Worst Case Multiple Exposure Scenario." *Environmental Toxicology and Chemistry*. 32(8):1752-1758.

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- chromatography-tandem mass spectrometry." *Analytical and Bioanalytical Chemistry* 404(9): 2711-2720.
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PRESENTED PAPERS and LECTURES (out of 212)

*Students are underlined – Online meetings and presentations from 2019-2020 not shown.

1. "Examination of trends and variations in contaminants via non-targeted mass spectrometry: An Everglades case study". Cody Henderson, Brian Ng, Steven Landeweer, Natalia Quinete, Piero Gardinali. 15th annual Workshop on LC-MS/MS Applications in Environmental Analysis and Food Safety, 29-31st May 2019. Miami Beach, FL.

2. "Redefining Quality Control for Non-Targeted Analysis of Environmental Samples". Brian Ng, Natalia Quinete and Piero Gardinali. 15th annual Workshop on LC-MS/MS Applications in Environmental Analysis and Food Safety, 29-31st May 2019. Miami Beach, FL.
3. "Investigating the behavior of Sunscreens in seawater". Steven Landweer, Natalia Quinete and Piero Gardinali. 15th annual Workshop on LC-MS/MS Applications in Environmental Analysis and Food Safety, 29-31st May 2019. Miami Beach, FL.
4. "An Improved Chloroform-free Lipid Extraction Method on Long-chain Lipids Followed by Liquid Chromatography-High Resolution Mass Spectrometry (LC-HRMS)". Yaile Carrazana, Natalia Soares Quinete, Piero Gardinali. 15th annual Workshop on LC-MS/MS Applications in Environmental Analysis and Food Safety, 29-31st May 2019. Miami Beach, FL.
5. "Modern African Dust and Trace Metals: Transport, Loading and Human Exposure". Natalia Soares Quinete, Robert A. Menzies, Douglas B. Seba, Cesar Ramirez, and Piero Gardinali. International Conference on Metal Detoxification (MetDetox), 10-13 June 2019, Berlin, Germany.
6. "Sediment accumulation rates of organic matter, nutrients, and trace metals vary across mangrove forests on the island of Puerto Rico". Danielle Ogurcak, Todd Crowl, Michael Ross, John Meeder, Joseph Smoak, John Kominoski, James Fourqurean, Piero Gardinali, Amanda Chappel, Natalia Soares Quinete, Jennie Rivera, Marla Santos and Tatiana Barreto. Mangrove, Macrobenthos & Management (MMM5 Conference), 1-5 July 2019, Singapore.
7. "Investigating the environmental fate and transport of sunscreen components: Understanding the exposure route". S. Landweer, N. Quinete, P.R. Gardinali. SETAC North America 40th Annual Meeting, 3-7 November, Toronto, ON, Canada.
8. "Assessment of steroid hormones and pharmaceuticals in South Florida surface waters by Liquid Chromatography- High Resolution Mass Spectrometry" N. Quinete, K. Lugo P.R., S. Maldonado Gardinali. SETAC North America 40th Annual Meeting, 3-7 November, Toronto, ON, Canada.
9. "Examination of trends and variations in contaminants via non-targeted mass spectrometry: An Everglades case study". A. Henderson, B. Ng, S. Landweer, N. Quinete, P.R. Gardinali. SETAC North America 40th Annual Meeting, 3-7 November, Toronto, ON, Canada.
10. "Assessing Reproducibility using Quality Controls for NonTarget Analysis of Environmental Samples". B. Ng, N. Quinete, P.R. Gardinali. SETAC North America 40th Annual Meeting, 3-7 November, Toronto, ON, Canada.
11. "A Simple Polydimethylsiloxane (PDMS) Sponge for the Removal of Environmental Organic Contaminants". B. Ng, N. Quinete, P.R. Gardinali. SETAC North America 40th Annual Meeting, 3-7 November, Toronto, ON, Canada.
12. "Understanding the photolysis of oxybenzone: Rates and degradation products". S. Landweer, K. Meerbott, N. Quinete, P.R. Gardinali. SETAC North America 40th Annual Meeting, 3-7 November, Toronto, ON, Canada.
13. "Análisis de metales tóxicos en muestras ambientales: técnicas para monitoreo e intervención rápida". P.R. Gardinali, 3er Foro Ambiente y Salud, COSESAM VXI Congreso Gobernar Salud 2019, Cartagena Colombia, May 15, 2019. (Invited Speaker).

14. "Do we need to redefine the term water quality? Lessons learned from the application of ultra-high resolution mass spectrometry to water testing." Piero R. Gardinali (FIU). Seminario del Departamento de Quimica Ambiental y Computacional, Facultad de Farmacia, Universidad de Cartagena, Colombia, May 16, 2019. (Invited Speaker)
15. "NOVEL ANALYTICAL METHODS FOR TRADITIONAL AND EMERGENT CONTAMINANTS USING MASS SPECTROMETRY". Piero R. Gardinali, Universidad de Puerto Rico, Bayamon, CREST-PCRN, February 8th, 2019. (Invited Speaker)
16. "Comparison of electrospray ionization (ESI) and atmospheric pressure chemical ionization (APCI) in the detection of unknown compounds within the context of the EPA ENTACT project". Natalia Quinete, Brian Ng, Piero Gardinali. EPA's Non-Targeted Analysis Collaborative Trial (ENTACT) workshop Aug 13-15, 2018, Research Triangle, NC, USA.
17. "The Impact of Steroid Hormones, Pharmaceuticals, and Personal Care Products in Surface Waters and Their Potential Endocrine Disruptor Effect in Human, Including Microbiome, And Aquatic Organisms" . Natalia Quinete, Douglas Seba and Piero Gardinali. 2018 Falls meeting on Microbiome: The Environment, Genetics and Disease, October 5 - 7, Westmister, Colorado, USA.
18. "An Improved Chloroform-free Lipid Extraction Method on Long-chain Lipids Followed by Liquid Chromatography-High Resolution Mass Spectrometry (LC-HRMS)". Yailee Carrazana, Natalia Soares Quinete, Piero Gardinali. 15th annual Workshop on LC-MS/MS Applications in Environmental Analysis and Food Safety, 29-31st May 2019. Miami Beach, FL.
19. "Kinetics and mechanistic investigation on ultrasonic degradation of the flame retardant tris (2- chloroethyl) phosphate (TCEP) in aqueous solution" . A. M. Abdullah, Natalia Soares Quinete, Piero Gardinali, Kevin O'Shea. 15th annual Workshop on LCMS/MS Applications in Environmental Analysis and Food Safety, 29-31st May 2019. Miami Beach, FL.
20. "Remediation of perfluoroalkyl substances (PFASs) in water by ultrasonic irradiation" . A. M. Abdullah, Natalia Soares Quinete, Piero Gardinali, Kevin O'Shea. 15th annual Workshop on LC-MS/MS Applications in Environmental Analysis and Food Safety, 29-31st May 2019. Miami Beach, FL.
21. "Modern African Dust and Trace Metals: Transport, Loading and Human Exposure". Natalia Soares Quinete, Robert A. Menzies, Douglas B. Seba, Cesar Ramirez, & Piero Gardinali. MetDetox: International Conference on Metal Detoxification in Berlin, 10-13 June 2019, Berlin, Germany.
22. "Improving non-target analysis by HPLC-ESI/HRMS in the context of the EPA collaborative trial project (ENTACT). B. Ng, N. Quinete, and P.R. Gardinali. SETAC North America 39th Annual Meeting, Sacramento, November 4-8, 2018. (Poster).
23. "Comprehensive nontarget analysis of sediment and aqueous environmental samples via SPE LC-ESI-HRMS: A case study for the Florida Everglades" C. Henderson, N. Quinete, and P.R. Gardinali. SETAC North America 39th Annual Meeting, Sacramento, November 4-8, 2018. (Poster).

24. "The occurrence and prevalence of UV filter chemicals in surface water samples in Biscayne Bay and Biscayne National Park" S. Landeweer, N. Quinete, and P.R. Gardinali. SETAC North America 39th Annual Meeting, Sacramento, November 4-8, 2018. (Poster).
25. "Comparison of different ionization sources in the detection of unknown compounds in environmental samples within the EPA ENTACT project" N. Quinete, B. Ng, P.R. Gardinali, Florida International University / Chemistry & Biochemistry and SERC. SETAC North America 39th Annual Meeting, Sacramento, November 4-8, 2018. (Platform).
26. "Impact assessment of environmental samples for organic contaminants using untargeted / targeted analysis workflow" Piero R. Gardinali (FIU) and Dwain Cardona (Thermo). C&EN Webinar – July 19, 2018.
27. "Hyphenated mass spectrometry techniques for the analysis of crude oil: the battle between separation, ionization and resolution". Piero R. Gardinali, Anna Huba, Natalia Quinete. 14th LS/MS-MS Workshop on Environmental and Food Safety Applications, Barcelona, Spain. June 26, 2018. (Invited Speaker).
28. "Determination of the absorption rate and partition coefficient of organochlorines and polyaromatic hydrocarbons in water using polydimethylsiloxane". G. Vasconcelos Villar; N. Soares Quinete, P.R. Gardinali, Florida International University. SETAC North America 38th Annual Meeting, Minneapolis, November 12-16, 2017. (Poster)
29. "Occurrence and tissue distribution of organochlorinated compounds in Magellan penguin (*Spheniscus magellanicus*) from Southeastern Coast of Brazil" N. Quinete, Florida International University / Southeast Environmental Research Center SERC; R.A. Hauser-Davis, Oswaldo Cruz Foundation/ Center for Studies on Worker Health and Human Ecology; L. Lemos, Oswaldo Cruz Foundation / National School of Public Health; J.F. de Moura, Leibniz Center for Tropical Marine Ecology / Systems Ecology Group; S. Siciliano, National School of Public Health Sérgio Arouca, Oswaldo Cruz Foundation; P.R. Gardinali, Florida International University / Chemistry & Biochemistry and SERC. SETAC North America 38th Annual Meeting, Minneapolis, November 12-16, 2017. (Poster)
30. "Online SPE-LC-HRMS for the determination of common UV-blocking chemicals from sunscreen in surface waters". J. Almeida, N. Soares Quinete, P.R. Gardinali. Florida International University. SETAC North America 38th Annual Meeting, Minneapolis, November 12-16, 2017. (Poster)
31. "Identification and quantification of caffeine, acetaminophen, and sucralose as wastewater tracers using an online SPE LC-ESI-HRMS. C. Henderson, B. Ng, N. Quinete, P.R. Gardinali, Florida International University. SETAC North America 38th Annual Meeting, Minneapolis, November 12-16, 2017. (Poster)
32. "Non target analysis in reclaimed water using online SPE coupled to HPLC-ESI/HRMS". B. Ng, N. Quinete, C. Henderson, P.R. Gardinali, Florida International University. SETAC North America 38th Annual Meeting, Minneapolis, November 12-16, 2017. (Platform)
33. "Using an artificial oil system to assess dissolution of PAHs from droplets" Piero R. Gardinali and Kathia Sandoval, Florida international University, Department of Chemistry. 2018 Gulf of Mexico Oil Spill & Ecosystem Science Conference (GoMOSES), New Orleans, February 5-8, 2018. (Platform)

34. "Occurrence of suspect and non-target contaminants and their transformation products in a linked surface water system influenced by treated wastewater" A. Huba,; P.R. Gardinali, Florida International Univ / Chemistry Biochemistry and SERC. SETAC 37th Annual Meeting, Orlando, FL November 2016. (Platform)
35. "Uptake and elimination kinetics for polycyclic aromatic hydrocarbons in Arctic lipid rich copepods", I.B. Øverjordet, SINTEF Materials and Chemistry / Applied Environmental Biology and Chemistry; R. Nepstad, SINTEF Materials and Chemistry / Monitoring and Modelling; I. Salaberria, NTNU Univ / Biology; B. Hansen, T. Nordtug, SINTEF Materials and Chemistry / Environmental Technology; D. Altin, BioTrix; K. Sandoval, P.R. Gardinali, Florida International Univ / Chemistry Biochemistry and SERC; A.J. Olsen, NTNU / Dept of Biology. SETAC 37th Annual Meeting, Orlando, FL November 2016. (Poster).
36. "Sucralose: a wastewater tracer or a water quality indicator?" H. Briceno, A. Serna, A. Huba, P.R. Gardinali, Florida International University. SETAC 37th Annual Meeting, Orlando, FL November 2016. (Poster).
37. "Understanding the Oxygenation Mechanism of Hydrocarbons in the Ocean Utilizing SA-TIMS-FT-ICRMS"; Paolo Benigni; Rebecca Marin; Kathia Sandoval; Christopher J Thompson; Mark E Ridgeway; Melvin Park; Piero Gardinali; Francisco Fernandez-Lima; Florida International University. 64th ASMS Conference on Mass Spectrometry and Allied Topics, San Antonio, TX June 2016. (Poster).
38. "Understanding the atmospheric pressure ionization of petroleum components: the effects of size, structure, and presence of heteroatoms" Anna Huba and Piero R. Gardinali, SETAC North America 36th Annual Meeting, Salt Lake City, November 1-5, 2015. (Poster)
39. "A new delivery system of individual PAHs from droplets to study their dissolution rates" Kathia Sandoval and Piero R. Gardinali, SETAC North America 36th Annual Meeting, Salt Lake City, November 1-5, 2015. (Poster)
40. "Detection of Designer Drugs and Relevant Metabolites in Wastewater Samples Using High Resolution Mass Spectrometry: a connection between target, suspect and unknown-unknowns" Piero R. Gardinali and Nubia Heuett, 25th SETAC Europe, Barcelona Spain May 3-7, 2015 (Poster).
41. "Characterization of influent and effluent wastewaters by high-resolution mass spectrometry: Understanding the composition of recalcitrant chemicals" Nubia Heuett and Piero R. Gardinali, 25th SETAC Europe, Barcelona Spain May 3-7, 2015, (Poster)
42. "Application of silica gel chromatography coupled with GCxGC-TOF in identification of oxygenated hydrocarbons in complex environmental samples" 39th International Symposium on Capillary Chromatography & 12th GCxGC Symposium, Fort Worth Texas, May14, 2015 (Poster).
43. "Biodegradation of crude oil by deep sea microbiological assemblies: what have we learned from the GOM" Piero R. Gardinali. BP-UK Science Group, Invited Webinar September 29, 2015.
44. "Using High Resolution Mass Spectrometry (HRMS) as an environmental protection tool: from the needle in the haystack to a haystack made of needles" Piero R. Gardinali.

3 recruiting talks at University of Puerto Rico, Rio Piedras, Humacao and Mayaguez. January 19-22, 2016.

45. "Oil and water don't mix: a closer look at role of micron-size oil droplets during a sub-surface oil release" Piero R. Gardinali, Texas A&M Department of Oceanography, College Station TX, April 11, 2016. Invited Seminar Speaker.
46. "Sweet, funky and healing waters: the surprising chemical diversity of influent, effluents and reclaimed water" N. Heuett, S. Batchu, C. Ramirez and P. R. Gardinali, 10th Annual LC/MS/MS Workshop on Environmental Applications And Food Safety, Barcelona, Spain, July 1-3, 2014. (platform).
47. "Environmental Analytical Chemistry, an USA Perspective", Lee Ferguson (Duke University) and Piero Gardinali (FIU). Environmental Seminar Series, Consejo Nacional de Investigaciones Cientificas (CSIC), Barcelona, Spain, June 30, 2014. (invited talk)
48. "Identification of Phase II Pharmaceutical Metabolites in Reclaimed Water using Orbitrap Mass Spectrometry" J. Wang and P. R. Gardinali, 18th Annual Water Reuse and Desalination Research conference, Las Vegas, Nevada, May 19-20-2014. (poster)
49. "Physical, chemical and toxicological characterization of micron size droplets created from MC-252 source oil", K. Sandoval, A. Smith, B. Echols, G. Rand, T. Nordtug, B. H. Hansen, and P. R. Gardinali. 2014 Gulf of Mexico Oil Spill & Ecosystem Science Conference, Mobile, Alabama, January 26-29, 2014. (poster)
50. "Identification of Phase II Pharmaceutical Metabolites in Reclaimed Water Using High Resolution Benchtop Orbitrap Mass Spectrometry". J. Wang and P. R. Gardinali. 9th Annual Workshop on LC/MS/MS Applications on Environmental Analysis and Food Safety, Burlington, Ontario, Canada, May 6-9, 2013. (platform)
51. "Online solid phase extraction liquid chromatography tandem mass spectrometric (SPE-LC-MS/MS) method for the determination of Sucralose in reclaimed waters and its photo degradation in natural waters from South Florida". S. Rani Batchu, Natalia Quinete, V. R. Panditi, P. R Gardinali. 9th Annual Workshop on LC/MS/MS Applications on Environmental Analysis and Food Safety, Burlington, Ontario, Canada, May 6-9, 2013. (platform)
52. "Influence of Deepwater Horizon field-collected oil characteristics and exposure conditions on aquatic toxicity test results". P.R. Gardinali, G. Rand. 245th ACS National Meeting and Exposition, New Orleans, LA, April 7-11, 2013. (platform)
53. "Using the occurrence of contaminants in multimedia samples to develop management tools for the environmental assessment of South Florida Ecosystems" P.R. Gardinali, J. Castro, G. Rand, V. Caccia, A. Fernandez, I. Ley., M. Cejas, N. Quinete, C. Wang, E. Nhuch, L. Arroyo. 2013 Biscayne Bay Science Symposium. Palmetto Bay, FL, February 27-28, 2013.
54. "Comprehensive Marine Toxicity Program to Address the Potential Toxicity of Petroleum Hydrocarbons from the DWH Incident in the Gulf of Mexico". G. Rand, P.R. Gardinali, B. Stubblefield, M. Huddleston, B. Echols, M. BenKinney, and O. Pelz. SETAC North America, 33rd Annual Meeting, Long Beach, CA, November 11-15, 2012. (platform)
55. "Fully automated, trace level detection of PAHs in saltwater by online-SPE LC-MSMS: the quest to eliminate sample preparation". C. Ramirez, and P.R. Gardinali. SETAC

North America, 33rd Annual Meeting, Long Beach, CA, November 11-15, 2012.
(platform)

56. "Preparation and characterization of oil-water dispersions by pressurized flow injection (PFI) of oil into a continuous turbulent flow generator" B. Hansen, P.R. Gardinali, B. Stubblefield, G. Rand, O. Pelz and T. Nordtug. SETAC North America, 33rd Annual Meeting, Long Beach, CA, November 11-15, 2012.
57. "Optical characterization of oil-water dispersions by fluorescence spectroscopy and microscopy: getting the answer in real time". K. Sandoval, I. Ley, A. Fernandez, and P.R. Gardinali. SETAC North America, 33rd Annual Meeting, Long Beach, CA, November 11-15, 2012.
58. "The contribution of oil droplets to the uptake and toxicity of oil dispersions to copepods". B. Hansen, D. Altin, A. Olsen, I. Overjordet, G. Rand, W. Stubblefield, P. R. Gardinali, O. Pelz, T. Nordtug. SETAC North America, 33rd Annual Meeting, Long Beach, CA, November 11-15, 2012.
59. "Physical and chemical characterization of oil-water mixtures as toxicity exposure media: assessing composition, stability, and droplet formation". K. Sandoval, A. Fernandez, I. Ley, A. Smith, B. Echols, G. Rand, and P.R. Gardinali. SETAC North America, 33rd Annual Meeting, Long Beach, CA, November 11-15, 2012.
60. "Analysis of Drugs of Abuse and Their Metabolites via On-line SPE-HPLC-MS/MS for Communal Assessment of Consumption". N. Heuett and P.R. Gardinali. SETAC North America, 33rd Annual Meeting, Long Beach, CA, November 11-15, 2012.
61. "Stability of Dioctyl Sulfosuccinate (DOSS) towards photodegradation and hydrolysis under simulated laboratory conditions". S. Batchu and P.R. Gardinali. SETAC North America, 33rd Annual Meeting, Long Beach, CA, November 11-15, 2012.
62. "An on-line SPE/LC-MS/MS method for the determination of multiple classes of antibiotics in environmental and reclaimed waters". V. Panditi and P.R. Gardinali. SETAC North America, 33rd Annual Meeting, Long Beach, CA, November 11-15, 2012.
63. "Automated online solid phase extraction LC-MS/MS for the determination of endosulfan isomers and their metabolite in water samples". N. Quinete, and P. R. Gardinali. SETAC North America, 33rd Annual Meeting, Long Beach, CA, November 11-15, 2012.
64. "Detection of PAHs using LC-APPI-MS/MS assisted by dopant gradient system". C. Wang, C. Ramirez and P.R. Gardinali. SETAC North America, 33rd Annual Meeting, Long Beach, CA, November 11-15, 2012.
65. "Using silicone membranes to produce truly dissolved solutions of polyaromatic hydrocarbons (PAHs) used in toxicological testing". L. Alvarez-Fraga, C. Ramirez, B. Echols, G. Rand, A. Edgington, W. Stubblefield, and P.R. Gardinali. SETAC North America, 33rd Annual Meeting, Long Beach, CA, November 11-15, 2012.
66. "Occurrence of PPCPs and hormones in South Florida drinking water". C. Wang and P.R. Gardinali. SETAC North America, 33rd Annual Meeting, Long Beach, CA, November 11-15, 2012.

67. "Uptake and depuration of the pharmaceuticals in reclaimed water by mosquito fish (*Gambusia holbrooki*)". J. Wang, and P.R. Gardinali. SETAC North America, 33rd Annual Meeting, Long Beach, CA, November 11-15, 2012.
68. "Photodegradation of Sucralose under simulated solar radiation: implications for its long-term environmental stability" S. Batchu and P.R. Gardinali. SETAC North America, 33rd Annual Meeting, Long Beach, CA, November 11-15, 2012.
69. "Doping for sensitivity: evaluation of atmospheric pressure photoionization (APPI) for the detection of wastewater related chemicals in aqueous samples" C. Wang and P.R. Gardinali. 8th LC/MS/MS Workshop on Environmental Applications and Food Safety. Barcelona, Spain, July 2-4, 2012. (platform)
70. "Outcompeting GC for the detection of legacy chlorinated pesticides: online-SPE UPLC APCI/MSMS detection of endosulfans at part per trillion levels". N. Quinete and P. R. Gardinali. 8th LC/MS/MS Workshop on Environmental Applications and Food Safety. Barcelona, Spain, July 2-4, 2012.
71. "Identifying the photoproducts of (demethyl)sildenafil: electrospray-high resolution MS/MS alone is not enough". S. Pérez, P. Eichhorn, J. Aceña, P. Gardinali, and D. Barceló. 8th LC/MS/MS Workshop on Environmental Applications and Food Safety. Barcelona, Spain, July 2-4, 2012. (platform)
72. "Fate of sildenafil (Viagra) in wastewater treatment plants. Identification of its transformation product with advanced mass spectrometric techniques" J. Aceña, B. Ferreira da Silva, P. R. Gardinali, A. Mozeto, S. Pérez and D. Barceló. 8th LC/MS/MS Workshop on Environmental Applications and Food Safety. Barcelona, Spain, July 2-4, 2012.
73. "Trace Metals in Sediments from Three Protected Areas in South Florida: Assessment of Background Concentrations and Evaluation of Risk for Management Purposes" J. Castro, A. Fernandez, V. Gonzalez-Caccia and P.R. Gardinali. 9th INTECOL International Wetlands Conference, Orlando, FL June 3-8, 2012.
74. "Improving sample throughput and reducing carryover by reprogramming the CTC autosampler for on-line LC-MS/MS analysis using EQuan system". J. Wang and P.R. Gardinali. Thermo Scientific Productivity Seminar Series, Fort Lauderdale, FL, March 27, 2012. (platform)
75. "Fast, ultra-trace level analysis of an oil dispersant in seawater using the Thermo EQuan system". C. Ramirez and P.R. Gardinali. Thermo Scientific Productivity Seminar Series, Fort Lauderdale, FL, March 27, 2012. (platform)
76. "Selection of Surrogate MC252 Oil as a Reference Material for Future Aquatic Toxicity Tests and Other Studies". O. Pelz, J.S. Brown, M. BenKinney, P. Gardinali, C. Gong, D.B. Grass, M. Huddleston, G. Rand, W. Stubblefield, and A.D. Ahnell. 32th SETAC North America Annual Meeting, Boston, MA, November 13-17, 2011.
77. "Elemental composition of airborne particulate matter collected at port everglades in South Florida". C. Ramirez, L. Rojas de Astudillo, L. Arroyo-Mora, D. Seba and P. R. Gardinali. First International Workshop on the Long-Range Transport and Impacts of African Dust on the Americas. San Juan, Puerto Rico. October 6-7, 2011.
78. "Quantitative screening for airborne trace elements by in situ laser ablation icp-ms: assessment of dust depositions in South Florida". L. Arroyo, C. Ramirez, D. Seba and

- P. R. Gardinali. First International Workshop on the Long-Range Transport and Impacts of African Dust on the Americas. San Juan, Puerto Rico. October 6-7, 2011.
79. "Occurrence and fate of selected pharmaceuticals in biotic and abiotic compartments from water bodies directly impacted by reclaimed water irrigation". J. Wang and P. R. Gardinali. SETAC Europe 21st Annual Meeting, Milan, Italy, May 15-19, 2011.
 80. "Analysis of phosphodiesterase type V inhibitors: distribution, occurrence and fate in surface water and suspended solids". B. Ferreira da Silva, J. Aceña, P. R. Gardinali, A. A. Mozeto, S. Pérez, D. Barceló. SETAC Europe 21st Annual Meeting, Milan, Italy, May 15-19, 2011.
 81. "Investigation of the photodegradation of PDE-V inhibitors and analogues under simulated sunlight by ESI-QqToF mass spectrometry". J. Aceña, B. Ferreira Da Silva, P.R. Gardinali, A.A. Mozeto, S. Pérez, D. Barceló. SETAC Europe 21st Annual Meeting, Milan, Italy, May 15-19, 2011.
 82. "Using ESI-QToF-MS for the identification of phototransformation products of sildenafil (Viagra) and its human metabolite N-demethyl-sildenafil generated in a sunlight simulator". S. Pérez, P. Eichorn, P. R. Gardinali, D. Barceló. V Reunión de la sociedad española de espectrometría de masas (V SEEM), Malaga España, April 11-14, 2011.
 83. "Simultaneous determination of Corexit EC9500A & EC9527A components in Seawater and crude oil by Liquid Chromatography/Tandem Mass Spectrometry". C. Ramirez, S. Rani Batchu and P. R. Gardinali. 59th ASMS National Meeting, Denver, CO, June 5-9, 2011.
 84. "Identification Dioctyl Sulfosuccinate Sodium Salt (DOSS) degradates in ocean waters by Tandem Mass Spectrometry". S. Rani Batchu, C. Ramirez and P. R. Gardinali. 59th ASMS National Meeting, Denver, CO, June 5-9, 2011.
 85. "Simultaneously determination the anionic surfactant DOSS and its degradates in multimedia samples by liquid chromatography tandem mass spectrometry". J. Wang, C. Ramirez, S. Rani Batchu and P. R. Gardinali. 59th ASMS National Meeting, Denver, CO, June 5-9, 2011.
 86. "Advantages of APPI ionization for the detection of challenging analytes at trace levels in environmental water". C. Wang and P.R. Gardinali. 59th ASMS National Meeting, Denver, CO, June 5-9, 2011.
 87. "Photolysis of antibiotics in natural and artificial sunlight: degradation kinetics and metabolite identification" S. Batchu, P. Gardinali. SETAC North America 31st Annual Meeting, Portland Oregon, USA, 7-11 November 2010. (platform)
 88. "Caution – Reclaimed Water Do Not Drink. How does Whole Effluent Testing of Pharmaceuticals Compare to Individual Compounds?" J.M. Brausch, G.M. Rand, P. Gardinali. SETAC North America 31st Annual Meeting, Portland Oregon, USA, 7-11 November 2010.

89. "Simultaneous detection of Pharmaceuticals and Personal Care Products in sediments and soils in South Florida by gas chromatography-mass spectrometry" C. Wang, P. Gardinali. SETAC North America 31st Annual Meeting, Portland Oregon, USA, 7–11 November 2010.
90. "Accumulation and depuration of endosulfan sulfate in *Gambusia affinis*" T. Hoang, G. Rand, P. Gardinali and J. Castro. SETAC North America 31st Annual Meeting, Portland Oregon, USA, 7–11 November 2010.
91. "Analysis of selected pharmaceuticals and personal care products in fish tissue" J. Wang, P. Gardinali., SETAC North America 31st Annual Meeting, Portland Oregon, USA, 7–11 November 2010.
92. "Identification of photodegradation products of antibiotics by tandem mass spectrometry" S. Rani Batchu, P. R. Gardinali. SETAC North America 30th Annual Meeting. Hilton Riverside, New Orleans, Louisiana, USA, 19 – 23, November 2009.
93. "Assessment of Occurrence and Potential Effect of Pharmaceuticals and Personal Care Products in Surface Water from South Florida". C. Wang, P. R. Gardinali. 2009. Platform presentation, American Chemical Society Florida Section 85th Annual Meeting, Kissimmee, FL, May 14-16.
94. "Accelerated Solvent Extraction Sediment and Soil for Detection of Pharmaceuticals and Personal Care Products by gas chromatography mass spectrometry". C. Wang, P. R. Gardinali. 2009. Poster presentation, 30th Annual Society for Environmental Toxicology and Chemistry Conference, New Orleans, Louisiana, Nov 19-23.
95. "Investigation of the photodegradation of sildenafil (Viagra) under simulated sunlight by ESI-QQTOF mass spectrometry" Lei Tong, Victoria Osorio, Piero R. Gardinali, Yanxin Wang, Mira Petrovic, Sandra Perez and Damia Barcelo. 6th Annual LC/MS/MS Workshop on Environmental Applications and Food Safety entitled Barcelona, Spain, February 25-26, 2010.
96. "Endosulfan Sulfate in Fish Tissue from Everglades National Park: Tales of an Unregulated Pesticide Metabolite" Piero R. Gardinali, Adolfo Fernandez, David Acosta, Ingrid Zamora, Mark Cejas, Gary M. Rand and Joffre Castro. Greater Everglades Ecosystem Restoration Conference GEER 2008. Naples, FL, July 28- August 1, 2008.
97. "Microconstituents in Surface Waters from South Florida: Occurrence, Persistence and Relevance with Respect to Water Reuse" Piero R. Gardinali, Simrat Singh, Jun Shi, Mark Cejas and Chengtao Wang Greater Everglades Ecosystem Restoration Conference GEER 2008. Naples, FL, July 28- August 1, 2008.
98. "Regional Distribution of Organic Contaminants in Water and Sediments Everglades National Park, Biscayne National Park and Big Cypress National Preserve". Piero R. Gardinali, Adolfo Fernandez, Ingrid Ley, Mark Cejas, Luis Arroyo, Elienai Veguilla, Elsa Nhuch, Chengtao Wang, Gary M. Rand and Joffre Castro. Greater Everglades Ecosystem Restoration Conference GEER 2008. Naples, FL, July 28- August 1, 2008.
99. "Bioavailability of Copper in Flooded Agricultural Soils and Toxicity to the Florida Apple Snail (*Pomacea Paludosa*)" Tham C. Hoang, Emily C. Rogevich, Gary M. Rand, Piero R. Gardinali and Robert A. Frakes. Greater Everglades Ecosystem Restoration Conference GEER 2008. Naples, FL, July 28- August 1, 2008.

100. "Occurrence and Distribution of Trace Metals in Sediment Samples from Protected Areas in South Florida" Piero Gardinali , Valentina G. Caccia and Joffre Castro. Greater Everglades Ecosystem Restoration Conference GEER 2008. Naples, FL, July 28- August 1, 2008.
101. "Rapid Screening for Airborne Trace Elements by In situ Laser Ablation ICP-MS Assessing Sources and Distributions in South Florida Sensitive Ecosystems". Luis Arroyo, D. Seba, P. Gardinali. Southeast SETAC Chapter Regional Meeting, University of Florida Gainesville, FL, May 30 – June 1st, 2008.
102. "Photodegradation of a Macrolide Antibiotic Roxithromycin by Simulated Solar Radiation" S. Rani Batchu, V. Panditi, J. Wang, and P. Gardinali. Southeast SETAC Chapter Regional Meeting, University of Florida Gainesville, FL, May 30 – June 1st, 2008.(Best student poster award).
103. "Assessment of Submerged Aquatic Vegetation as Indicators of Antifoulant Contamination in Southeast Florida Coastal Environments". Melissa Fernandez, P. Gardinali. Southeast SETAC Chapter Regional Meeting, University of Florida Gainesville, FL, May 30 – June 1st, 2008.
104. "The use of Silicone Composites as Passive Samplers for the Assessment of Water Contamination along the C-111 Basin". M. Gomez, A. Fernandez, P. Gardinali. Southeast SETAC Chapter Regional Meeting, University of Florida Gainesville, FL, May 30 – June 1st, 2008.
105. "Occurrence of Pharmaceuticals and Personal Care Products in Surface Water in South Florida Canals and Coastal Environments". Chengtao Wang, P. Gardinali. Southeast SETAC Chapter Regional Meeting, University of Florida Gainesville, FL, May 30 – June 1st, 2008.
106. "Endosulfan, a pollutant of concern at S-178" Joffre Castro and Piero Gardinali, Everglades Foundation, Palmetto Bay, FL, March 26, 2008. Invitation by Nathaniel Reed.
107. "Endosulfan & the C-111 Basin" Piero R. Gardinali and Gary M. Rand, Department of Interior, Everglades National park, South Florida Natural Resource Office, Homestead, FL January 28, 2008. Invitation by Superintendent Dan Kimball.
108. "Environmental occurrence of Irgarol 1051 metabolites (M1,M2, M3 and M4) in coastal waters from the United States" Piero R. Gardinali and Charles Maxey, SETAC North America 28th Annual Meeting. Milwaukee, WI. 11-15 November 2007. Platform 681.
109. "Assessment of LA-ICP-MS for the Forensic Analysis of Soil and Sediments" Luis Arroyo, Tatiana Trejos, Piero R. Gardinali, and Jose R. Almirall. AAFS 59th Annual Scientific Meeting, February 19-24, 2007, Henry B. Gonzalez Convention Center, San Antonio, TX.
110. "Emergent Pollutants of Concern in South Florida Surface Waters: Occurrence, Distribution and Fate". Gardinali, P., Singh, S. and Shi, J. SETAC North America 27th Annual Meeting. Palais des Congres, Montreal, Quebec, Canada. 5 - 9 November 2006
111. "Monitoring and Ecological Risk of Irgarol 1051 in Maryland Waters of Chesapeake Bay and other North East Coast Areas of the United States". Hall, L.,

Killen, W., Anderson, R., Gardinali, P. and Balcomb, R. SETAC North America 27th Annual Meeting. Palais des Congres, Montreal, Quebec, Canada. 5 - 9 November 2006

112. "Assessing Non-traditional Micro-constituents in South Florida Waters: Analytical Challenges of the Part Per Trillion World", Piero Gardinali, Ph.D., Florida Section American Water Works Association 2005 Fall Conference, Orlando, November 27-December 1, 2005.
113. "A comprehensive method for the fast screening of selected EPOCs in ground, surface and waste waters". (SIN-1117-835459) Singh, Simrat, Gardinali, Piero. Society of Environmental Toxicology and Chemistry (SETAC) 26th Annual Meeting, Baltimore, November 13-17, 2005.
114. "Assessing the fate and transport of Irgarol 1051 and its interactions with biological endpoints in near-coastal environments". (GAR-1118-467505). Gardinali, Piero, Maxey, Charles, Zamora, Ingrid, Jochem, Frank. Society of Environmental Toxicology and Chemistry (SETAC) 26th Annual Meeting, Baltimore, November 13-17, 2005.
115. "Distribution of Irgarol 1051 and M1 in biotic and abiotic samples around the Florida coast". (MAX-1117-816546). Maxey, C, Zamora, I, Gardinali, P. Society of Environmental Toxicology and Chemistry (SETAC) 26th Annual Meeting, Baltimore, November 13-17, 2005.
116. "Using Silicone Polymer Composites (PDMS, Fe-PDMS) as Environmental Sampling Media". (BEL-1117-836174) Bell, S, Gardinali, P. Society of Environmental Toxicology and Chemistry (SETAC) 26th Annual Meeting, Baltimore, November 13-17, 2005.
117. "Assessment of toxicological potential in marine coastal areas using YES assay and chemical analyses". (WIL-1117-835086) Willett, K, Chaudhary, A, Khan, S, Singh, S, Azua, A, Gardinali, P. Society of Environmental Toxicology and Chemistry (SETAC) 26th Annual Meeting, Baltimore, November 13-17, 2005.
118. Potential hazard of exposure to natural and medicinal estrogens from drinking surface water to children under two years of age. Stephannie Thacker, BS, Simrat Singh, MS, Piero Gardinali, PhD, Quentin Felty, PhD, Deodutta Roy, PhD. American Public Health Association 134th Annual Meeting -- Boston, MA -- November 4-8, 2006
119. "Occurrence and Distribution of Steroids and Pharmaceuticals in Coastal Environments from the Florida Keys". Singh, S., Azua, A., Gardinali, P. (PT057) Fourth SETAC World Congress 25th Annual Meeting in North America. 14-18 November 2004 Portland, Oregon, USA.
120. "An improved analytical method for the determination of unstable and volatile organophosphorous pesticides in complex environmental matrices" Cejas, Mark, Fernandez, Adolfo, Gardinali, Piero, (PH058) Fourth SETAC World Congress 25th Annual Meeting in North America 14-18 November 2004 Portland, Oregon, USA.
121. "Assessing the Effects of Irgarol 1051 on Marine Phytoplankton Populations in Key Largo Harbor, Florida" Zamora, Ingrid, Jochem, Frank, Gardinali, Piero (PM062)

Fourth SETAC World Congress 25th Annual Meeting in North America 14-18 November 2004 Portland, Oregon, USA.

122. "Assessing the pollution chronology of sediments in South Florida estuaries by a combination of chemical analysis and fluorescence screening". Alvarez-Fraga, L; Gardinali, P Poster PT100, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.
123. "Determination of caffeine and other personal care product ingredients, in coastal environments from the Florida Keys". Azua, A; Gardinali, P Poster PW114, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.
124. "Regional distribution of organic contaminants and trace metals in fish tissue from Everglades National Park". Fernandez, A; Jaffe, R; Gardinali, P; Rand, G; Cai, Y; Cejas, M; Perry, W., Poster PH117, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.
125. "Trace determination of 1-aminopropanone, a marker for wastewater contamination, by liquid chromatography with fluorescence detection (LC-FL)". Singh, Simrat P; Gardinali, Piero Poster PH130, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.
126. "Paleo-reconstruction of hydrocarbon contamination sources due to the presence of major roads and their contribution to the pollution loads of wetlands in the Florida Keys and the Southern Everglades". Cejas, M; Gardinali, P Poster PW200, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.
127. "Evaluation of an Atmospheric Pressure Ionization Mass Spectrometry (API- LC/MS) method for the determination of triazine-based herbicides in complex environmental matrices"., Arroyo, L; Wu, J; Gardinali, P. Poster PW204, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.
128. "Bioassay Directed Chemical Analyses of Biscayne Bay Sediments" Wu, J., Annavarapu, S; Willett, KL; Gardinali, PR. Platform 080, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.
129. "New Method for the Rapid Determination of Triazine Herbicides and Irgarol 1051 in Soils and Sediment by ASE-SPE-GC/MS". Wu, J; Gardinali, P Poster PH129, Society of Environmental Toxicology and Chemistry (SETAC), 24th Annual Meeting, Austin Texas, November 10-13, 2003.
130. Multidisciplinary Tools to Solve Environmental Problems in South Florida" Department of Chemistry Seminar. Florida International University, October 17th 2003.
132. "Caffeine, as a specific marker for wastewater contamination, in coastal environments: lessons learned from the Florida Keys", Piero R. Gardinali, Arlette Azua and Joseph N. Boyer 31st Scientific Meeting of the ASSOCIATION OF MARINE LABORATORIES OF THE CARIBBEAN, Port of Spain, Trinidad, July 14-18, 2003.

133. "The chemical risks of smooth sailing: the controversy around new antifouling additives and coral reefs in the Florida Keys", Gardinali, P.R. and Maxey, C. 31st Scientific Meeting of the ASSOCIATION OF MARINE LABORATORIES OF THE CARIBBEAN, Port of Spain, Trinidad, July 14-18, 2003.
134. "Using a combination or in vitro bioassays to assess toxicity of estuarine sediments". Annavarapu, S., Gardinali, P. R., and Willett, K.L. SETAC Mid-South Region Annual Meeting, Vanderbilt University, July 2003. (1st place Platform Award).
135. "New Method For The Rapid Determination Of Triazine Herbicides In Soils And Sediment By ASE-SPE-GC/MS", Jianghong Wu and Piero Gardinali . South Florida ACS -FAME2003, Orlando FL, May 10th 2003.
136. "Environmental Analysis Of Polar Herbicides In Complex Organic-Rich Matrices By High Performance Liquid Chromatography Atmospheric Pressure Ionization Mass Spectrometry (HPLC-API-MS)" Luis Arroyo and Piero Gardinali . South Florida ACS -FAME2003, Orlando FL, May 10th 2003.
137. "Occurrence and transport of IRGAROL 1051, a new antifouling herbicide, and its major metabolite in coastal waters from Biscayne Bay and the Florida Keys". Piero R. Gardinali, and Charles Maxey. Joint conference on the Science and Restoration of the Greater Everglades and Florida bay Ecosystem (GEER). Palm Harbor, Florida, April 13-18, 2003 (Oral Presentation).
138. "Distribution and Occurrence of Inorganic and Organic Contaminants in Sediments from Everglades and Biscayne National Parks" Adolfo Fernandez, Piero Gardinali, Rudolf Jaffe, Yong Cai, Gary Rand and Mark Cejas. Joint conference on the Science and Restoration of the Greater Everglades and Florida bay Ecosystem (GEER). Palm Harbor, Florida, April 13-18, 2003 (Poster).

WORKS IN PROGRESS

"Biscayne Bay Water Quality Characterization and Pollution Reduction, Miami Dade County (MDC)" Phase V submitted to Florida Department of Environmental Protection by MDC-RER 7/31/2024..\$1,850,000 FIU Subcontractor.

Padauani, M*. Ross, M. Gardinali, P. Microplastic Filtration by a Coastal Mangrove Wetland as a Novel Ecosystem Service. **Revision submitted** to Microplastics, January 2025.

de Jourdan, B., Daniel, B., Gardinali, P., Ramirez, C., Langdon, C., Stefansson, E., Parkerton, T., Stubblefield, B. Toxicity of Six Representative Polycyclic Aromatic Compounds in Five Marine Test Species. **Submitted** to Science of the Total Environment, December 2024.

Ogunbiyi, Olutobi ; Dias Cappelini, Luciana; Monem, Mymuna; Perez, Monica; George, Florence; Gardinali, Piero; Bagner, Daniel; Quinete, Natalia. Longitudinal assessment of Organic Chemicals and Prioritization of Chemical Tracers in Drinking water from Miami, South Florida by Non-Targeted Analysis: Source apportionment, Spatiotemporal distribution, and Socioeconomic Implications. **Submitted** to ES&T November 2024

N/A

FUNDED RESEARCH

Total funding brought to FIU: \$31,810,849

Total corrected by participation: \$11,627,275

ACTIVE

“AI-powered characterization of solids and microplastics in stormwater runoff and their mitigation via green and gray infrastructure in urban coastal areas. Awarded by NOAA Florida Sea Grant Marine Debris Program for \$2,327,898. Role Co-PI (Ali Ebrahimian PI) 2024-2027.

“SFWMD RFP 600001521. Ecological and Environmental Scientific and Technology Support Services: University Support” Competitive solicitation for services during the 2024-2029 period. Awarded. Role: Contract Technical Manager. Total funding up to \$15M.

“Biscayne Bay Water Quality Characterization and Pollution Reduction, Miami Dade County (MDC)” awarded by Florida Department of Environmental Protection. Phase II \$2,250,000, Phase II \$2,250,000, 2023 – 2025 – Through an Intermodal MOU with MDC-RER.

“CRESTII: Center for Environmental Aquatic Chemistry & Ecotoxicology (CACHÉ)”, (NSF) \$5,000,000. Role Senior Personnel (Todd Crowl, PI) 8/21- 3/26. Gardinali group support ~\$55,000/year.

“Identification of Lake Worth Lagoon Pollutant Load Source Areas and Efficacy of Surface Water Management Upgrades Designed to Improve Water Quality” awarded by Environmental protection Agency for \$488,243. 2024-2027. Role Co-PI, PI Randall Parkinson.

“Biscayne Bay Plastic Tracking and Fate Model, Florida (BBLAST) awarded by Environmental Protection Agency. 2023 – 2025 \$398,803. Role, Co-PI, PI Henry Briceño

“Biscayne Bay and Reef Observation, Interpretation and Prediction System (B-BROIPS) awarded by Florida Department of Environmental Protection. 2022 – 2024 \$1,249,904. Role, Co-PI, PI James Forqueran.

“REU Site: Understanding Coastal Systems” (NSF) (Teutonico, PI, Gardinali Senior Personnel) 4/2019-3/2022. Trained 2 REU interns every summer. Renewed on March 2022 for 3 more years.

“Biscayne Bay Water Quality Characterization and Pollution Reduction”, Miami Dade County (MDC) awarded by Florida Department of Environmental Protection (2021 – 2025). Phase I \$2,150,000. Phase II \$2,250,000. Role: Gardinali FIU PI, Gidley, UM PI.

“Comparative Evaluation of Low- and High-Resolution MS Approaches for Screening and Confirmation of New Psychoactive Substances in Human Specimen Matrices, Funded by U.S. Department of Justice (January 1, 2022 - December 31, 2024) (\$437,665.00), , Co Investigator Piero Gardinali with Co Investigator Anamary Tarifa, PI Anthony De Caprio.

"Innovative methodology based on a non-targeted screening approach combined with activity

patterns for estimation of soil and dust ingestion rate in children.", (EPA-STAR) \$1,260,000. Role Co-PI (Natalia Soares Quinete PI). (6/21-8/25).

PREVIOUSLY FUNDED

“Ecological and Environmental Scientific and Technology Support Services:

University Support” SFWMD, Competitive Contract Award for services for the period 2019-2024. Role: PI Total funding: Maximum available \$7.5M. FIU has received \$2.4M in support of project-specific individual statements of work.

City of Coral Gables Assessment of Water Quality and Habitat Conditions in the Coral Gables Waterway to Inform Management and Restoration, Funded by City of Coral Gables (July 24, 2020 - October 24, 2022) (\$299,995.00), Funded - In Progress, renewed for 2022-2024, PI Tiffany Troxler with CoPI Piero Gardinali.

Environmental assessments for the 21st Century: Non-target analysis (NTA) of waters from the Ohio River in response to construction and operation of a mayor chemical plant. Hoover Foundation (HWHF) \$140,000, 1/22-9/2024. Role FIU PI (\$76,035).

“Pilot Survey of Biscayne Bay Ecosystem Health, Hoover Foundation (HWHF)” \$ 23,039 (Jose Eirin-Lopez PI) 2/22-6/22 Role: Co-PI.

Evaluating Sources of Nutrients and Enterococci in Biscayne Bay, Florida: Connections and Management Implications, Funded by Miami Waterkeeper (March 1, 2021 - March 28, 2023) (\$66,604.00), Funded - In Progress, Spring 2021, PI Tiffany Troxler (0%) with CoPI Piero Gardinali (0%)

“CREST: Center for Environmental Aquatic Chemistry & Ecotoxicology (CACHÉ), (NSF) \$5,500,000. Role Co-PI (Todd Cowl, PI). 4/16- 3/21. On NCE. Gardinali group support ~\$65,000/year.

“EVALUACIÓN DEL GRADO DE CONTAMINACIÓN POR MERCURIO Y OTRAS SUSTANCIAS TÓXICAS, Y SU AFECTACIÓN EN LA SALUD HUMANA EN LAS POBLACIONES DE LA CUENCA DEL RÍO ATRATO, COMO CONSECUENCIA DE LAS ACTIVIDADES DE MINERÍA”, COLCIENCIAS – Universidad de Córdoba, Montería Colombia. Role: Co-Investigator, Foreign Researcher. PI: Dr. Jose Luis Marrugo (UC). Total Funding \$3,000,000. 4/2019-4/2021. Delayed due to COVID19.

“PROVIDING CONTAMINANT DATA FOR CONTINUED COASTAL MANAGEMENT: ASSESSING THE EFFECTS OF LAND BASED SOURCES OF POLLUTION ON COLLIER COUNTY’S WATERSHED SEDIMENTS” (Collier County, Florida) . Gardinali (PI) \$55,000 for 1 year. 12/2019 – 3/2021. – Delayed due to COVID19.

“Multi-approach discrimination of forensic soil evidence using complementary tools: towards the geographic attribution of soils using (LA)-ICP-TQ-MS, XRF and molecular fingerprinting”. NSF, Center for Advanced Research in Forensic Science (CARFS). Role Subproject Co-PI, Total Funding \$30,000, 10/2019-12/2021.

“REU Site: Understanding Coastal Ecosystems: From the Everglades to the Coral Reefs”, NSF, Role (Co-PI) Total Funding \$360,000 1/2019-1/2021.

“Analysis of Lab Generated Biodegradation Samples for Extended PAHs and Related Compounds and Saturated Hydrocarbons by FIU in Support of University of Tennessee Biodegradation Studies of Caspian Crude oil” (BP). Gardinali PI. Total Funding: \$32,450 2/2020-6/2021.

“Screening for water quality degradation along Everglades National Park’s West Coast: A holistic unattended chemical analysis approach” A Subproject to “Mechanisms and Conditions responsible for elevated TP levels in surface water discharges to Shark River Slough within Everglades National Park” DOI, Role PI., 800007395 Total Funding \$75,000 6/17-6/19.

“Lab Services for Florida Bay ISC Saltwater Analysis for Everglades National Park”. DOI, Role, PI, 800009110 Total Funding \$60,000. 08/7/2017-11/21/2018.

“Analysis of Deep Sea Basins Biodegradation Samples for Extended PAHs and Related Compounds and Saturated Hydrocarbons by FIU in Support of The Ecological Signatures of Oil Biodegradation in the Global Ocean Project” (BP-Upstream HSE) \$36,111. Role PI. 5/15-6/17

“Deepwater biodegradation of crude oil under simulated laboratory conditions in support of the BP-Brasil Offshore Exploration” (BP-Upstream HSE) \$31,600. Role PI. 5/15-12/16

“Oil droplet toxicity: Methods/protocol establishment, chemical characterization and toxicity studies to better understand organism exposures to oil, an important step towards more accurate ecological risk assessments” (BP-GCRO) \$2,300,000 4/12-12/15. (Gardinali and Rand PI’s) (800001556).

“Development of an Empirical Database of Aquatic Toxicity Data with a Selected Group of Polyaromatic Hydrocarbons” (BP-GCRO) \$2,600,000 4/12-12/15. Awarded. (Gardinali and Rand PI’s)(800001593).

“Providing Contaminant Data for Coastal Management” (Collier County, Florida) \$40,000 5/14-9/14. Awarded (Gardinali PI)(800004748).

“Effects of the Deep Water Horizon Oil Spill on Marine Organisms” (BP-GCRO) \$5,472,544 1/12 – 12/14 (Rand and Gardinali PI’s) (800001369).

Aquatic Toxicity Test Program: Evaluate the Potential Acute and Chronic Toxicity of the MC-252 Crude Oil and Dispersant (Corexit 9500) individually and in Combination, as well as the Weathered Crude and Weathered Dispersed Oils, to Estuarine and Marine Organisms” **Cardno-Entrix. Gary rand (PI), Piero Gardinali (Co-PI)**. Total funding **\$2.9M** for 2011-2013.

“Toxicological assessment of oil/water samples from the Gulf of Mexico” **Cardno-Entrix. Gary Rand (PI), Piero Gardinali (Co-PI)**. Total funding **\$966K** for 5/2010 12/2011.

“NSF Rapid:Response to measuring the ecological effects of the Deepwater Horizon oil spill on the Florida Coastal Everglades” **National Science Foundation. James Fourquaran (PI), Piero Gardinali (Collaborator)** Total Funding \$150K. Gardinali (**\$24K**). 6/2010 – 6/2011.

“Coastal wetlands rehydration demonstration project (CWRDP)” Miami-Dade Water and

Sewage Department. Gary Rand (PI), Piero Gardinali (Co-Pi). Total Funding \$2.5M for 2010-2015. Contract signed November 2008. Task Order 3 \$107K Awarded for 5/2010 – 3/2011.

“Providing contaminant data for coastal management: assessing the effects of land based sources of pollution on Collier County’s estuaries and their associated watersheds” Principal investigator: Piero Gardinali. Collier County Florida (State). Total Funding: \$95K for 2007-2008

“Contaminant Assessment & Risk Evaluation (CARE) for Everglades National Park, Biscayne National Park and Big Cypress National Preserve ”. Department of Interior, National Park Service, Biscayne National Park. Piero R. Gardinali (PI), and Gary M. Rand (Co-PI). Total Funding \$2.1M for 2005-2009.

“Study of Reclaimed, Surface, and Groundwater Quality (WRF02-008)” Principal Investigator: Mark McNeal, CH2MHill; Piero Gardinali (FIU Subcontractor). Water Reuse Federation. Total Funding \$500K for 2005-2007. FIU contract: \$83K.

“Assessing the occurrence, dissipation and potential risks of glyphosate applications to near-coastal environments within Biscayne National Park”. Principal investigator: Piero Gardinali . Department of Interior, National Park Service, Biscayne National Park. Total Funding \$97K for 2005-2007.

“Monitoring the occurrence and transport of Irgarol and its known metabolites along coastal environmental compartments”. Principal investigator: Piero Gardinali. Ciba Specialty Chemicals, Plastic Additive Division (Industrial). Total funding \$ 85K for 2005-2007.

“Distribution of antifouling herbicides in biotic and abiotic media along the coastal marine environment: Assessing potential impacts of IRGAROL1051 to submerged vegetation species in the Florida Keys”, Principal investigator: Piero Gardinali. Ciba Specialty Chemicals, Plastic Additive Division (Industrial). Total funding \$ 82K for 2004-2005.

“Screening Level Risk Assessment to Determine Potential High Priority Contaminants and Natural Resources at Risk in Biscayne and Everglades National Parks: Critical information needs for CERP. Principal Investigators: Gary M. Rand (PI), Piero R. Gardinali (Co-PI) , YongCai , Rudolf Jaffé. Department of Interior, National Park Service. (Federal). Total Funding \$736K Duration 3 years, 2001-2004.

“Dissipation of IRGAROL 1051 in the near coastal marine environment: Assessing potential impacts to protected symbiotic species in the Florida Keys” Principal investigator: Piero Gardinali (PI). Ciba Specialty Chemicals, Plastic Additive Division (Industrial). Total funding \$ 97K for 2002-2003.

“Analysis of atmospheric samples and surface slicks from the South Pacific, the Caribbean and the Bitterroot” Principal Investigators: Piero Gardinali and Rudolf Jaffe. Academy of Marine Sciences (Private Foundation). Total Funding \$3K for 2002-2003.

“Pollution chronology in the Florida Rock and Sand/ FIU Wetland Restoration Property: Using aromatic hydrocarbons as tracers for past and present activities” Principal investigator: Piero Gardinali (PI). Florida Rock and Sand/FIU (Mixed). Total funding \$ 15K for 2002-2003.

"Occurrence and Transport of IRGAROL 1051 and its Major Metabolite in Coastal Waters from the United States". Principal investigator: Piero Gardinali (PI). Ciba Specialty Chemicals, Plastic Additive Division (Industrial).
Total funding \$ 44.7K for 2001-2002.

"Effects of Urban and Agricultural Landuse on the Anthropogenic Loading to Southwest Florida Estuaries: Baseline Information to Assess Changing Watersheds". Collier County Florida. Principal investigators: Piero Gardinali (PI), Rudolf Jaffe, Joseph Boyer and Yong Cai. (State).
Total funding \$ 88K for 2001-2002.

"Evaluation of Caffeine as a Selective Molecular Tracer for Sewage Intrusions in Marine Coastal Ecosystems: A new analytical tool to help the interpretation of water quality data for management purposes" Principal investigator: Piero Gardinali. FIU-Office of the Provost (Internal).
Total funding \$ 14.5K for 5/2001-12/2001.

"Occurrence and Photo-transformation of Iragrol 1051 in Florida Coastal Waters: Preliminary Assessment". Principal investigator: Piero Gardinali. Ciba Specialty Chemicals, Plastic Additive Division (Industrial).
Total funding \$ 10K for 2000.

"Effects of the Flamingo Wastewater Treatment Plant and ECO-Pond on the Water Quality of Florida Bay" Principal Investigators: Rudolf Jaffé (PI), Joseph Boyer, David Generaux and Piero Gardinali (CO-PI). Department of Interior, National park Service, Everglades National Park.
Total funding \$74.7K for 1999-2000.

PROFESSIONAL HONORS, AWARDS, PRIZES, FELLOWSHIPS

FIU Excellence in Research Award, 2006.

FIU Top Scholar 2012 Award. Category: Established Faculty with Substantial New Funding.

FIU CASE Faculty Service Award, 2020.

FIU CASE Faculty Research Award, 2023.

FIU CASE Faculty Community Engagement Award, 2023.

OTHER PROFESSIONAL ACTIVITIES AND PUBLIC SERVICE

EDITORIAL BOARDS

Co-Editor in Chief – Environmental Nanomaterials, Monitoring and Management (ENMM), Elsevier, 2013-current.

Associate editor - Bulletin of Environmental Contamination and Toxicology, Springer, 2013-present.

JORNALISM, POPULAR ARTICLES AND OTHER DISSEMINATION VENUES

NPR Academic Minute. Piero Gardinali, Florida International University – Simulating the Deepwater Horizon Oil Spill in the Lab – First Aired 02/08/19. Available at <https://academicminute.org/2019/02/piero-gardinali-florida-international-university-simulating-the-deepwater-horizon-oil-spill-in-the-lab/>.

Thermo Scientific Application Note 586 (2013) “Simultaneous Determination of Oil Dispersants in Seawater and Crude Oil by LC and Tandem MS”. Cesar E. Ramirez, Sudha Rani Batchu and Piero R. Gardinali. Department of Chemistry and Biochemistry, Florida International University.

Waterways Online, Ed Hutchins Producer (2013) Episode 267. "Florida Panthers 2013" and "Pharmaceuticals in our Waters".

<http://www.youtube.com/watch?v=aOG6uTMgpas>

Invited panel member for session on “Current Challenges in Environmental Analysis - A Panel Discussion”. Laura Bush, Editorial Director LCGC and Spectroscopy Moderator. 22nd Annual Quality Assurance Conference, EPA Region 6, Dallas, TX, October 15-19, 2012. (platform)

Potera C, (2012) Caffeine in Wastewater Is a Tracer for Human Fecal Contamination. Environ Health Perspect 120(3): doi:10.1289/ehp.120-a108a
(previous work and expertise was used for the article. Faculty was interviewed)

Earthsky Online and TV interview (2012): “Piero Gardinali: El agua residual ayuda a los Everglades”

<http://espanol.earthsky.org/agua/piero-gardinali-el-agua-residual-humana-puede-ayudar-a-restaurar-los-everglades-de-la-florida>

Earthsky Online and TV interview (2012): “Piero Gardinali habla de la química en el arte pictórico”

<http://espanol.earthsky.org/la-humanidad/piero-gardinali-habla-de-la-quimica-en-el-arte-pictorico>

SeparationsNOW.com “Silicone samplers: Removal of pesticides from water, measured by SPME and GC/MS “. Our research was highlighted in a web article by Steve Down (unsolicited)

<http://www.separationsnow.com/coi/cda/detail.cda?id=24202&type=Feature&chId=1&page=1>

SOLICITED REVIEWER

Journals (10-20 reviews per year)

Environmental Earth Sciences	Science of the Total Environment
Analytical Methods	Ecotoxicology and Environmental Sciences
Chemosphere	Analytical and Bioanalytical Chemistry*
Marine Pollution Bulletin	Environmental Science and Technology
Applied Geochemistry	Environmental Toxicology & Chemistry
Water Research	Bulletin of Environmental Contamination and Toxicology
Ecotoxicology	Ecotoxicology and Environmental Sciences
Interciencia (Venezuela)	Organic Geochemistry
Biologia Tropical	Hydrobiologia
Revista de Ciencias Forenses (Costa Rica)	
Ecotoxicology and Environmental Sciences	
International Journal of Environmental Analytical Chemistry	

*Recognized in 2012 as high volume reviewer.

Proposals

United Nations Environmental Program (UNEP)
National Science Foundation (NSF) MRI, GRFP
US Geological Survey (USGS)
National Institutes of Health (NIH)
Government of Portugal
Government of Ecuador –PROMETEO

OTHER SERVICE RELATED ACTIVITIES

Elected Senator, FIU Faculty senate, 2011-2012, 2012-2013, 2013-2014.

Elected Member – FIU-CASE Tenure and Promotion Committee, 2018,2019,2020.

Graduate Faculty since 2003. (Dissertation Status 2005, renewed 2012)

Affiliated Faculty FIU Department of Environmental Studies 2000-2007.

Affiliated Faculty - FIU's International Forensic Research Institute (IFRI) since 2003.

Technical Director, Environmental Analysis Research Laboratory (EARL), a trace analysis facility accredited under the NELAP standard by the Florida Department of Health (FDOH). (2004- 2014)

Member, expert panel. FIU “Oil Teach In Forum” following the Deep Water Horizon Incident (May 17, 2010)

Voting Member - SEFCRI Land Based Sources of Pollution Technical Advisory Committee (2007-2013)

Voting Member - SEFCRI Land Based Sources of Pollution Technical Advisory Committee (2013-present) Reappointed to new TAC August 2013.

Voting Member - FIU Diving Control Board (2008-2020).

Voting Member - FIU Boating Safety Committee (2008-2023).

Member - Biscayne Bay Initiative Science Team 1999-2006.

Member - CERP Southern Estuaries Scientific Committee on Contaminants 2005-2007.

Member, - International Editorial Committee, Revista Costaricense de Ciencias Forenses. (2006-2007)

Member - Organizing Committee for the Society of Environmental Toxicology and Chemistry (SETAC) 29th Annual Meeting, Tampa Florida, 2008.

Member- 2013 SETAC Founders Award Committee. Reviews awards for outstanding contribution to scientific knowledge within the society's scope.

Organizer - FAME 2004 Analytical Symposium and FAME 2009 and FAME2010 Environmental Symposium for South Florida ACS.

Co-Organizer – 15th Workshop on LC/MS-MS Applications for Environmental Analysis and Food Safety Applications. Miami Beach, Florida, May 29-31, 2019.

PROFESSIONAL CERTIFICATIONS

Ironman Certified Coach - 2022-present

PADI Divemaster – 1995-present

AAUS Scientific Diver - 2007-present

TEACHING

A. Example of Courses Taught at FIU

Semester	Year	Course	Description	Credits
Spring	1998	CHM4130L	Modern Analytical Chemistry Lab.	2
Summer	1998	CHM1046L	General Chemistry II Lab	2
Summer	1998	CHM1046L	General Chemistry II Lab	2
Fall	1998	CHM5936	Sp.Top. in Environmental Chemistry	3
Spring	1999	CHM4130	Modern Analytical Chemistry	3
Summer	1999	CHM1046L	General Chemistry II Lab	2
Fall	1999	CHM5931*	Advanced Mass Spectrometry	3
Spring	2000	CHM4130L	Modern Analytical Chemistry Lab	2
Summer	2000	CHM3120	Quantitative Analysis	3
Fall	2000	None		
Spring	2001	CHM4130L	Modern Analytical Chemistry Lab.	2
Spring	2001	CHM4130L	Modern Analytical Chemistry Lab.	2
Fall	2001	CHM5931*	Advanced Mass Spectrometry	3
Spring	2002	CHM4130	Modern Analytical Chemistry	3
Summer	2002	CHM5996	Mass Spectrometry Workshop	2
Fall	2002	None		
Spring	2003	CHM4130L	Modern Analytical Chemistry Lab.	1
Spring	2003	CHM4130L	Modern Analytical Chemistry Lab.	1
Summer	2003	CHM5996	Mass Spectrometry Workshop	2
Fall	2003	CHM5938	Advanced Mass Spectrometry	3
Spring	2004	CHM4130	Modern Analytical Chemistry	3
Fall	2004	CHM4130	Modern Analytical Chemistry	3
Spring	2005	CHM5936	Sp.Top. in Environmental Chemistry	3
Fall	2005	CHM5938	Advanced mass Spectrometry	3
Fall	2005	CHM4130L	Modern Analytical Chemistry Lab.	1
Spring	2006	None		
Fall	2006	CHM4130L	Modern Analytical Chemistry Lab.	1
Spring	2007	CHM4130	Modern Analytical Chemistry	3
Spring	2007	CHM5150	Graduate Analytical Methods	3
Fall	2007	CHM5938	Advanced Mass Spectrometry	3
Spring	2008	CHM4130L	Modern Analytical Chemistry Lab.	1
Fall	2008	CHM4130L	Modern Analytical Chemistry Lab.	1
Fall	2008	CHM6281	Environmental Organic Chemistry	3
Summer	2009	CHM3120	Introduction to Analytical Chemistry	3
Summer	2009	CHM5996	Mass Spectrometry Workshop	2
Fall	2009		Sabbatical	
Spring	2010		Sabbatical	
Summer	2010	CHM3120	Introduction to Analytical Chemistry	3
Fall	2010	CHM4130	Instrumental Analysis	3
Fall	2010	IDS4920	Chemistry in Art (Overload)	3
Spring	2011	CHS4600	Marine Chemistry	3

8. Arlette Azua 2003-2005 “Use of Caffeine and Other Personal Care Products (PCPs) as a Simple Tool for the Rapid Assessment of Water Quality” M.Sc. (CHM), Summer 2005.
9. Ingrid Zamora 2002-2005 “Effects of Irgarol 1051 to Marine Algae and Submerged Aquatic Vegetation” M.Sc. (EVR), Fall 2005
- 10 Simrat Singh 2003-2006 “Tracing Human Derived Wastewaters Using Biologically Active Xenobiotics and Natural Products” PhD. (CHM), Fall 2006.
- 11 Stephanie Bell 2003-2007 “Development of New Solid Phase Extraction Composites (SPEC) for the Determination of Soluble Contaminants in Surface and Ground Waters” M.Sc. (FORENSIC), Fall 2007.
- 12 Jun Shi 2004-2006 “Fate and transport of pharmaceuticals and other personal care products: assessing persistence and availability in near-coastal environments” M.Sc. (CHM). Summer 2006.
- 13 Charles Maxey 2005-2006 “Fate and transport of new antifouling boosters in the marine environment” M Sc. (CHM) Fall 2006.
- 14 Luis Arroyo 2005-2009 “Analytical methods for polar organic contaminants in organic rich environmental matrices” PhD. (CHM-Forensic Track) Spring 2009.
- 15 Chengtao Wang 2007-2012 “Occurrence of Persistent Pharmaceuticals, Hormones and Steroids in Coastal Environments” PhD. (CHM)Fall 2012.
- 16 Sudha Rani Batchu 2007-2013 “Photochemical transformation of common antibiotics in the freshwater and coastal environments of South Florida” PhD (CHM) Spring 2013
- 17 Mark Cejas 2007-2010 “SUCRALOSE, A UNIQUE TRACER FOR WASTEWATER INTRUSION” MSc. (CHM) Fall 2010.
- 18 Melissa Fernandez 2007-2010 “Use of submerged vegetation as indicators of antifoulant contamination in Southeast Florida environments” MSc. (CHM) Fall 2010.

- 19 Cesar Ramirez 2007-2013 “Analytical methods for the trace determination of modern use pesticides in coastal environments” PhD (CHM) Fall 2013
- 20 Jian Wang 2008-2013 “Occurrence and distribution of chemical indicators of wastewater in fish exposed to reclaimed water” PhD (CHM) Spring 2013.
- 21 Venkat Reddy-Panditi 2008-2013 “Fate and transport of common antibiotics in marsh environments influenced by water reuse” PhD (CHM) Summer 2013.
- 22 Nubia Heuett 2010-2015 “Illicit drugs as non-invasive communal indicators of drug usage” PhD (CHM) Summer 2015.
- 23 Anna Huba 2013-2016 “Investigating unknown-unknowns in crude oils through the process of natural evolution” PhD (CHEM) Fall 2016.
- 24 Marley Pryun 2014-2016 “Environmental fate of new and undeclared designer drugs” MS (CHEM) Summer 2016.
- 25 Kathia Sandoval 2014-2016 “Physical and Chemical Characterization of Crude Oil-Water Mixtures: Understanding the Effects of Interfacial Process to Chemical Bioavailability” MS (CHEM) Spring 2016.
- 26 Gilberto Vasconcelos 2015-2017 “Using Polydimethylsiloxane (PDMS) Pellets to Create an Absorption Model for the Determination of Equilibrium Concentrations of Dissolved Contaminants in the Aquatic Environment” MS (CHEM, Report Option) Fall 2017.
- 27 Brian Ng 2016-2022 “Development of suspect and unknown screening workflows for the comprehensive characterization of water masses” PhD (CHEM)
- 28 Cody Henderson 2016-2021 “Assessing the potential inputs of common environmental contaminants in quasi-real time: using high automated solid phase extraction (SPE) and high resolution mass spectrometry” MS (CHEM)
- 29 Steven Landeweer 2017-2023 “The Use of Mass Spectrometry to Elucidate the Behavior of Emergent Environmental Contaminants: UV Filters and micro plastics” PhD (CHEM)

30 Kassidy Troxell	2019-2023 “Detecting and Identifying Water Contaminants Unique to Specific Wastewater Sources in the Environment: assessing provenance through chemical fingerprinting” PhD (CHEM)
31 Mary Beth VanLandingham	2023-current “Detecting and Identifying Groundwater Intrusions along Biscayne Bay Watersheds using Target and Non-target analyses” PhD (ENV CHEM)
32 Marcellinus Ogudo	2023-present “Environmental fate of microplastics in Biscayne Bay; assessing sources, transformation and deposition.” PhD (ENV-CHEM)
33 Suela Oliveira	2024-present “Hydrocarbons in coastal marine environments in South Florida: an environmental forensics approach MS (CHEM)

B.2. Thesis/Dissertation Co-Advisor

1. Adolfo Fernandez	2001-2003 “Regional Distribution of Organic Contaminants and Trace Metals in Everglades and Biscayne National Parks”. M.Sc.(EVR). (Advisor: Rudolf Jaffe)
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B.3. Thesis/Dissertation Committee Member

Appointed member of the Dissertation/Thesis Committees for the following students:

Alex Gongora (MSc,CHM), Xiofang Lang (MSc, CHM), Julio Lopez (MSc, CHM), Jinghui Su (MSc, CHM), Maria Shiels (MSc, CHM), Shivanna Mahabir (MSc, ENV), Troy Lee (MSc, ENV), John Carriger (MSc, ENV), Oliver Spicer (MSc, Forensic), Maria Perez (MSc. Forensic), Ralph Mead (PhD, CHEM), Tatiana Trejos (PhD, CHEM) Yin Dan (PhD, CHEM) Howard Holness (PhD,CHEM) Wen Fan (PhD,CHEM) Christina Lydon (PhD, CHEM) Ashley Kimble (PhD, CHEMFT) Ike Onwuka (PhD, E&E)	Zuzana Zajikova (PhD, CHEM, Florida Atlantic University), Yang Deng (PhD, CVEN, University of Miami) Allison Curran (PhD, CHEM) Xuping Xu (PhD, CHEM) Joshua Coultier (PhD, CHEM) Oliva Pisani (PhD, CHEM) Matt Perez (PhD, BIO) Zayda Sitti (PhD, BIO) Oliva Pisani (PhD, CHEM) Madeleine Swortwood (PhD,CHEM) Ivan Blanco (MS, Env. Eng) Alex Landera (PhD,CHEM) Vanessa Londoño (PhD, E&E) Anthony Castellanos (PhD, CHEM) Patrick Roman (PhD, ELEG) Rosa Cromartie (PhD, CHEM)
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B.4. Other Supervision

Undergraduate Students (CHM4910 and CHM4911, Undergraduate Research)

Yareliz Ferreira (2022)
Ryan Bazan (2021)
Kyle Meerbott (2020)
Javier Pla (2023)
Kathleen Lugo (2019)
Joana Almeida (2018)
Kathia Sandoval (2011)
Nubia Heuett (2008)
Julian Purrinos (2019)
Daniela Guzman (2020)
Beatriz Torres (2003)
Karla Pacheco (2003)
Santiago Castellon(2020)

Camila Gonzalez (2022)
Daiana Garcia (2021)
Charles Maxey (2003)
Melanie Valderrama (2020)
Sandra Ike (2018)
Kryzyrus Turquin (2016)
Ingrid Zamora (2002)
Julio Morillo (2008)
Arlette Azua (2002)
Jose Marti (2001)
Lisette Martell (2001)
Lester Diaz (2001)
Mark Cejas (2001)
Charles Poppell (1999-2000)
Manolo Plasencia (1998)

High School Students (ACS-SEED)

David Acosta (2003 and 2004), Milagros Mendoza (1999 and 2000)

C. Other Personnel Supervision

Post-doctoral Associates

Dr. Valentina Gonzalez- Caccia (2006-2009)
Dr. Elsa Nhuch (2006-2008)
Dr. Natalia Quinete (2011-2013; 2016-2019)
Dr. Chengtao Wang (2013)
Dr. Jian Wang (2013-2015)
Dr. Sudah Batchu Rani (2013-2014)
Dr. Yan Ding (2013-2015)
Dr. Cesar Ramirez (2014-2015)
Dr. Milena Ceccopieri (2022-current)
Dr. Jinsheng Huang (2023-current)

Visiting Scholars

Dr. Luisa Rojas de Astudillo, Universidad de Oriente, Venezuela. Sabbatical (2010-2011)
Dr. Cristobal Galban, Universidad Mayor, Santiago de Chile, 2022,2023.

Full-time technical personnel

Ingrid Zamora-Ley (Research Coordinator), EARL Laboratory QA/QC Officer (2004-present)