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Catalina Restrepo, M.S.

Senior Environmental Scientist

Ms. Restrepo is a senior environmental scientist specializing in the assessment of human health and ecological exposure to chemicals. Her primary responsibilities at Gradient include designing and supervising a testing program for various synthetic turf products, performing human exposure risk assessments, conducting toxicological risk assessments of extractables and leachables from medical devices, providing technical expertise in radon testing and mitigation, assessing natural resource damages (NRD) liability, conducting baseline ecological risk assessments (BERAs) at industrial facilities, data validation, and data analysis of emerging contaminants. Ms. Restrepo earned a master's degree in environmental sciences with a concentration in toxicology from Louisiana State University, where she analyzed the diversity of oil-degrading bacteria after the BP oil spill in the Gulf of Mexico. Prior to joining Gradient, she conducted nearly 200 PFAS-related site investigations, including sampling groundwater, drinking water, soil, and sediment. She also conducted numerous radon tests and assisted in the design of mitigation systems in residential and large buildings across multiple military bases in the United States and Japan. She has supported Department of Defense clients throughout the US to meet state and federal environmental regulations.

Areas of Expertise

- Human Health & Ecological Risk Assessment
- Radon Measurement & Mitigation
- Natural Resource Damages
- Baseline Ecological Risk Assessment
- Data Validation
- PFAS Site Investigations
- Asbestos Exposure Assessment
- PFAS & Total Organic Fluorine Testing in Synthetic Field Turf

Education

- M.S., Environmental Sciences, Louisiana State University
- B.S., Biology, Louisiana State University
- Licensed Radon Measurement Professional, National Radon Proficiency Program (NRPP)
- RESRAD Family of Codes Training Workshop

Selected Projects

PFAS and Total Organic Fluorine Testing in Synthetic Field Turf: Designed a testing program for various synthetic turf products and components to determine whether targeted PFAS and total organic fluorine may be present.

Toxicological Risk Assessment: Conducted toxicological risk assessments for chemicals identified in extracts of various medical devices. Used relevant toxicological endpoints to derive chemical- and device-specific safety margins.

Natural Resource Damages Evaluation: Conducted a state-of-knowledge assessment of NRD and settlements from the late 1990s to late 2000s. Evaluated potential NRD liability at a portfolio of US chemical sites.

Baseline Ecological Risk Assessment: Conducted a BERA for a river and associated wetlands at an industrial facility.

Asbestos Exposure Assessment: Provided technical support in regard to human health risks of asbestos *via* oral, dermal, and inhalation exposure pathways.

Occupational Exposure Evaluation: Provided technical support for evaluating potential human health risks of occupational exposure to benzene, gasoline, and diesel exhaust.

Exposure Assessment: Evaluated exposures to oil spill-related chemicals among oil spill recovery workers, as well as claims of adverse health effects and standard of care issues.

Selected Presentations

Boon, D; Marchitti, SA; Colonna, KJ; Chowdhury-Paulino, IM; Li, W; Berky, AJ; **Restrepo, C; J**ack, M; Goodman, JE. 2025. "Non-sugar Sweeteners and Cancer: Integrating Results of a Systematic Review of Epidemiology Studies with Toxicology Evidence." Presented at EUROTOX 2025, Athens, Greece, September 14-17.

Meakin, CJ; **Restrepo, C;** Kearing, SR; Borton, LK. 2024. "What Is a More Conservative Approach for Risk Assessment? Comparing Materials Characterization Data with an Extractables Profile for a Permanent Orthopedic Implant." Presented at the Society of Toxicology (SOT) 63rd Annual Meeting and ToxExpo, Salt Lake City, UT, March 10-14.

Restrepo, C. 2019. "PFAS Site Investigation: Lessons Learned and Resulting Optimization." Presented to the Wisconsin Ground Water Association, Madison, WI, April 5.

Restrepo, C. 2018. "Comparison of PFAS Analysis Results Under Different Sample Preparation Methods." Presented to the Department of Defense Environmental Monitoring and Data Quality Conference, Orlando, FL, April 10.