



Satori.Marchitti@gradientcorp.com

(617) 395-5512

Satori A. Marchitti, Ph.D., DABT

Principal Scientist

Dr. Marchitti is a board-certified toxicologist with more than 20 years of experience. She applies her expertise in toxicology and risk assessment to evaluate potential human health effects associated with exposure to chemicals and substances found in the environment, workplace, food and beverages, and consumer products. She has led many projects involving the complex analysis of toxicology, epidemiology, and mechanistic data, including those related to toxic tort litigation and chemical regulation under the Toxic Substances Control Act (TSCA). Dr. Marchitti also conducts systematic reviews and weight-of-evidence analyses, and has expertise in physiologically based pharmacokinetic (PBPK) and benchmark dose (BMD) modeling.

Before joining Gradient, Dr. Marchitti was a senior associate at a risk science firm, where she provided toxicology expertise to industry, academia, and government. Prior to consulting, she was a federal postdoctoral and ORISE fellow at the US EPA, where she focused on early life stage exposure to environmental chemicals, using both *in vitro* and *in silico* methodologies, within the Chemical Safety for Sustainability and Human Health Risk Assessment programs. Dr. Marchitti has authored many peer-reviewed articles and book chapters in the fields of toxicology and human health risk and exposure assessment.

Areas of Expertise

- Toxicology
- Risk Assessment
- Human Exposure
- Carcinogenesis
- Genotoxicity & Mutagenesis
- Occupational Risk & Exposure Analysis
- Chemical Regulation Under TSCA

Services

- Toxicology
- Exposure & Risk Assessment
- Occupational Health & Safety
- Product Safety Assessment
- Product Liability
- Food & Beverages

Education

- Ph.D., Toxicology, University of Colorado
- B.A., Psychology, minor in Biochemistry, University of Colorado
- Diplomate of the American Board of Toxicology (DABT)

Selected Projects

Occupational Exposure Assessment: Evaluated occupational exposure and toxicity information for trichloroethylene (TCE) and carbon tetrachloride (CTC) to provide support to multiple industrial clients in responding to US EPA's Proposed and Final Rules under TSCA. Evaluated the scientific literature and US EPA's derivations of toxicity reference values for TCE and CTC. Performed BMD modeling and provided the client with proposed alternative values.

Carcinogenesis and Genotoxicity Evaluation: Performed weight of evidence analyses of animal carcinogenicity, genotoxicity, and epidemiology data for eight nonsugar sweeteners to evaluate their potential to cause cancer in humans. Conducted systematic reviews of animal, mechanistic, and epidemiology studies to evaluate the carcinogenic potential of an organophosphate pesticide.

Human Exposure Assessment: Assessed the toxicological significance and health risks of human exposure to various chemicals in drinking water and ambient air, within the context of causation analysis and toxic tort litigation. Evaluated the scientific literature regarding animal toxicology, human health effects, and physicochemical properties.

Product Safety Analysis: Evaluated available animal and mechanistic toxicology data for various substances in food and beverages, including food additive ingredients and substances related to food contact materials, to determine their potential to cause human health effects.

Selected Publications

Marchitti, SA; Boon, D; Jack, M; Goodman, JE. 2025. "Lack of genotoxic and carcinogenic potential for nonsugar sweeteners: A review of animal and mechanistic evidence." *Adv. Nutr.* 16(12):100552. doi: 10.1016/j.advnut.2025.100552.

Boon, D; **Marchitti, SA;** Colonna, KJ; Chowdhury-Paulino, IM; Li, W; Berky, A; Restrepo, C; Jack, M; Goodman, JE. 2025. "A systematic review of nonsugar sweeteners and cancer epidemiology studies." *Adv. Nutr.* 16(12):100527. doi: 10.1016/j.advnut.2025.100527.

Goodman, JE; Drury, NL; **Marchitti, SA.** 2025. "Comment on 'IARC Workshop on the Key Characteristics of Carcinogens: Assessment of End Points for Evaluating Mechanistic Evidence of Carcinogenic Hazards.'" *Environ. Health Perspect.* Apr. 1. doi: 10.1289/EHP17383.

Bailey, L; **Marchitti, S.** 2024. "Evolving chemical risk evaluation and management under the Toxic Substances Control Act: Trichloroethylene as an example." *Gradient Trends* 90. Spring.

LaKind, JS; Burns, CJ; Pottenger, LH; Naiman, DQ; Goodman, JE; **Marchitti, SA.** 2021. "Does ozone inhalation cause adverse metabolic effects in humans? A systematic review." *Crit. Rev. Toxicol.* 51(6):467-508.