



Exponent®
Engineering & Scientific Consulting

Reagan Strand, M.P.H.

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Professional Profile

Reagan Strand, M.P.H., is a toxicologist whose research background spans mechanistic and developmental toxicology at the intersection of chemical exposures, genetics, and nutrition. She brings a diverse toolbox spanning *in vivo* experimental design, biochemical analysis, epidemiologic data review, and weight-of-evidence synthesis, complemented by experience providing scientific support for litigation cases. Ms. Strand has working experience with safety assessments for medical devices (ISO 10993 and 18562), pesticides (FIFRA), consumer packaged goods (FHSA, Proposition 65), and food additives (FFDCA).

Prior to Exponent, Ms. Strand served as a Graduate Researcher at Yale University in the Department of Environmental Health Sciences. In this role, she independently designed and led molecular toxicology studies, developing *in vivo* models to understand how antioxidant deficiencies modify biological responses to dietary and environmental exposures. Her work resulted in publications, funding through competitive fellowships, and recognition by the Yale School of Public Health with the Outstanding Environmental Health Sciences Thesis Award and Best Thesis Presentation Award.

Ms. Strand also interned at the Connecticut Department of Public Health, applying R and SAS-based tools to develop evidence-based materials, translating epidemiologic findings into decision-support strategies for statewide public health initiatives. She was selected among Yale College and graduate students to serve as scientific lead for a high-profile, multi-stakeholder litigation effort at Yale Law School's Environmental Protection Clinic, where she contributed to the design, distribution, and analysis of qualitative and quantitative research informing resource allocation toward industrial agriculture litigation efforts.

Academic Credentials & Professional Honors

M.P.H., Environmental Health Sciences, Yale University, 2026

B.S., Health Sciences, Molecular & Cell Biology, University of Connecticut, 2024

Outstanding Environmental Health Sciences Thesis Award, Yale School of Public Health, 2026

Best Thesis Presentation Award, Yale School of Public Health, 2026

The Stolwijk Fellowship, Yale School of Public Health, 2025

Dr. Charlena M. Seymour Scholarship, AEHS Foundation, 2024

Horstmann Scholarship, Yale School of Public Health, 2024

Publications

Jin Y, Nguyen K, Strand R, Hsiao C-H, Vinogradova O, Wiemer A. "[Cell stress activates \$\gamma\$ 9 \$\delta\$ 2 T cells via endogenous phosphoantigens and butyrophilin complex dynamics](#)." Biomedicine & Pharmacotherapy, 195, 119023, 2026.

Strand R, Orlicky DJ, Chen Y. "[Gene-dose effect of the glutathione biosynthesis gene on ascorbate deficiency in mice](#)." Biochemical and Biophysical Research Communications, 766, 151900, 2025.

Project Experience

Prepared multiple toxicology waiver requests for EPA to support registration of a biopesticide.

Authored a weight-of-evidence analysis to rationalize a proposed Safe Harbor Level under Proposition 65.

Rationalized a bioequivalence argument for a medical device under ISO 10993 to support a manufacturing site change.

Led a multidisciplinary *in vivo* toxicology thesis investigating how dual antioxidant deficiency modulates developmental vulnerability to prenatal alcohol exposure, generating the first mechanistic characterization of this gene-environment interaction.

Synthesized qualitative and quantitative evidence into defensible frameworks supporting regulatory and legal decision-making for industrial agriculture cases as scientific lead for a high-stakes litigation effort at Yale Law School's Environmental Protection Clinic.

Analyzed CDC-funded BRFSS and ADRD surveillance datasets using SAS at the Connecticut Department of Public Health, developing evidence-based decision-support materials translating epidemiologic findings into statewide public health initiatives.