



Melinda T. Donnell, MPH

Current Position

Senior Associate
Health Scientist II

Discipline Areas

- > Toxicology
- > Risk Assessment
- > Environmental Health
- > Exposure Assessment

Years' Experience

3

Joined Cardno

2017

Education

- > MPH, Environmental Health Sciences & Policy, 2017
- > BSc, Public Health Sciences, UCI, 2014
- > BA, Public Health Policy, UCI, 2014

Summary of Experience

Ms. Melinda Donnell is a Senior Associate Health Scientist II with Cardno ChemRisk. She completed her Master of Public Health with an emphasis in Environmental Health Sciences & Policy from George Washington University in 2017. She received her Bachelor of Science in Public Health Sciences and Bachelor of Arts in Public Health Policy from the University of California, Irvine in 2014. For her graduate thesis research, she studied the effects of titanium dioxide nanoparticles on oxidative stress in mice brain. Additionally, she contributed to a project in which she evaluated the EPA's use of the database uncertainty factor (UFD) in their risk assessment model. Her primary areas of training and interest include evaluating and understanding the toxicology, potential exposure, and hazard and risk to consumers and in occupational settings associated with various chemicals, including per- and polyfluoroalkyl substances (PFAS), chemicals associated with electronic nicotine delivery systems (ENDS), chemicals found in consumer products and foods, and chemicals listed on the Proposition 65 list of carcinogens. In her current position, Melinda manages litigation casework, performs quantitative exposure assessments, conducts comprehensive literature reviews, and supports electronic cigarette research.

Significant Projects

Litigation Support

Flavorings (Diacetyl, 2,3-Pentanedione, 2,3-Hexanedione)

Provide support for expert witness testimony related to health effects allegedly associated with exposures to diacetyl used in microwave popcorn production and food flavoring manufacturing industries.

Asbestos

Manage litigation support on cases related to potential asbestos exposure from friction products, insulation, and gaskets and packing. Review and interpret relevant asbestos literature and case-specific materials for use in the preparation of expert reports and testimony.

Provide general support for expert witness testimony related to health effects allegedly associated with exposures to asbestos-containing products, including insulation, friction products, electrical equipment, phenolic molding components, gaskets and packing, joint compound, stucco, and talc. Performs comprehensive reviews and summaries of relevant plaintiff and expert testimony and other applicable case materials.

Perform quantitative exposure assessments and the assessment of health risks associated with the use of asbestos-containing electrical equipment and phenolic molding compounds.

Toxicology

Provide general support in multiple research efforts to understand the toxicology, potential risk of exposure, and potential health risk to various personal care and consumer products.

Performed multiple research efforts for various electronic cigarette clients in preparation of premarket tobacco application submissions to the FDA, including performing a systematic review of toxicological literature, preparing toxicological profiles, performing Quantitative Structure-Activity Relationship (QSAR) analysis for chemical constituents identified in e-cigarette products, as well as preparing graphical representations of analyzed data for chemicals found in e-cigarette liquids and e-cigarette aerosols.

Screened peer-reviewed literature for EPA TSCA's 10 chemicals to identify and compile relevant data on: exposure, engineering/manufacturing, and environmental fate. In addition, identified studies related to adverse health effects in animals or humans, the chemical's mode of action, and disposal of the chemical.

Evaluated the EPA's use of the UFD in their risk assessment model for a chemical, and determined whether it corresponded with the quality of the underlying data. Analyzed the relationship between the presence and absence of the UFD, as well as the magnitude of the applied UFD, and the stated confidence in the critical study, database, and reference dose.

Performed a systematic review of the scientific literature regarding the effect of anatase titanium dioxide nanoparticles on oxidative stress in mice brain.

Reviewed and critiqued the Consumer Product Safety Commission (CPSC) regulations for hazardous substances. Prepared a report, which compared current CPSC statutes and regulations with the 3rd and 6th revision of the Globally Harmonized System for Hazard Communication (GHS), as well as discussed why the CPSC should adopt and implement the GHS, and its potential outcomes.

Systematically reviewed the scientific literature evaluating the health hazards and risks associated with engineered nanomaterials for NIOSH.

Simulation Studies

Assisted in designing and executing an exposure assessment of milk protein in food products that do not list milk on the labels and are labeled as "non-dairy," "vegan," or "dairy-free." Characterized the potential risk of milk-contaminated products to milk-sensitized adults and children upon consumption.

Assisted in designing and executing an exposure assessment to measure potential airborne concentrations of pine wood- and corn-based dust produced in consumer products (pet litter). Estimated daily exposure concentrations under varying product use conditions, and evaluated the potential for any health risk by comparing to available regulatory health benchmark levels.

Membership and
Service to
Professional
Societies

- > Society for Risk Analysis (SRA)
- > Society of Toxicology (SOT)

Publications

Peer-Reviewed Publications

- > Fung, E.S., D.A. Drechsel, K.M. Towle, M.T. Hoang, R.M. Novick, C. Poteete, D.J. Paustenbach, and A.D. Monnot. 2018. Screening-level safety assessment of personal care product constituents using publicly available data. *Cosmetics*. 5(2):38. doi: 10.3390/cosmetics5020038.
- > Wright, D., M. Hoang, A. Sofine, J. Silva and R. Schwarzkopf. (2017). Pain catastrophizing as a predictor for postoperative pain and opiate consumption in total joint arthroplasty patients. *Archives of Orthopaedic and Trauma Surgery*, 137(12): 1623-1629.
- > Schwarzkopf, R., T. Zamansani, M. Hoang and T. Bridgeman (2016). The effect of a clinical pathway strategy for managing care in total joint replacement: The impact on perioperative outcomes. *J Clin Exp Orthop*, 2(1).
- > Schwarzkopf, R., D. Phan, M. Hoang, S. Ross and D. Mukamel. (2014). Do patients with income-based insurance have access to total joint arthroplasty? *The Journal of Arthroplasty*, 29(6): 1083-1086.
- > Sharareh, B., N. Le, M. Hoang and R. Schwarzkopf. (2014). Factors determining discharge destination for patients undergoing total joint replacement. *The Journal of Arthroplasty*, 29(7): 1355-1358.

Presentations

- > Hoang, M. and G. Gray. The Effect of Anatase Titanium Dioxide Nanoparticles via Intranasal Instillation on Oxidative Stress in Mice Brain: A Systematic Review. GW Research Days 2017. Washington, DC.
- > Hoang, M. and G. Gray. Understanding the Database Uncertainty Factor (UFD). Society for Risk Analysis, December 11-15, 2016. San Diego, CA.

Published Abstracts

- > Hoang, M., K. Towle, A. Monnot and E. Fung. Call for a Multi-Product Testing Strategy to Evaluate Potential Adverse Dermal Effects. Society of Toxicology, March 15-19, 2020. Anaheim, CA.
- > Fung, E., K. Towle, M. Hoang and A. Monnot. A Skin Sensitization Risk Assessment Framework for Evaluation of Metal Contamination in Personal Care Products. Society of Toxicology, March 15-19, 2020. Anaheim, CA.
- > Massarsky, A., J. Parker, M. Hoang, E. Fung and K. Unice. Using ToxCast and Reactome to Evaluate Toxicity of PFAS. Society of Toxicology, March 15-19, 2020. Anaheim, CA.
- > Gloeker, L., L. Liang, S. More, N. Binczewski, M. Hoang and A. Madl. Volatile Organic Compounds Measured in U.S. Indoor Residential Air from Smoking and Nonsmoking Homes and Implications for Public Health. Society of Toxicology, March 15-19, 2020. Anaheim, CA.

- > Yang, L., R. Brewster, M. Hoang and R. Novick. Exposure Assessment of Milk Protein in Non-Dairy or Vegan Ice Cream Substitutes – Are Non-Dairy or Vegan Products Safe to Populations with Milk Allergy? Society of Toxicology, March 10-14, 2019. Baltimore, MD.
- > Hoang, M., E. Fung, D. Drechsel, K. Towle, C. Poteete, D. Paustenbach and A. Monnot. Screening-level safety assessment of personal care product constituent safety using publicly available data. Society of Toxicology, March 11-15, 2018. San Antonio, TX.
- > Schwarzkopf, R., M. Hoang and D. Wright,. Pain catastrophizing as a predictor for post-operative pain and opiate consumption in total joint arthroplasty patients. American Association of Hip and Knee Surgeons, November 1, 2016. Dallas, TX.
- > Schwarzkopf, R., D. Phan, M. Hoang, S. Ross and D. Mukamel. Do patients with income-based insurance have access to total hip arthroplasty? Western Orthopaedic Association, July 30-August 2, 2014. Big Island, HI.
- > Sharareh, B., N. Le, M. Hoang and R. Schwarzkopf. Factors determining discharge destination for patients undergoing total joint replacement. Western Orthopaedic Association, July 30-August 2, 2014. Big Island, HI.
- > Schwarzkopf, R., D. Phan, M. Hoang, S. Ross and D. Mukamel. Do patients with income-based insurance have access to total hip arthroplasty? American Orthopaedic Association, 2014. Montreal.
- > Schwarzkopf, R., D. Phan, M. Hoang, D. Mukamel and S. Ross. Do patients with income-based insurance have access to total hip arthroplasty? American Association of Hip and Knee Surgeons, Nov. 8-10, 2013. Dallas, TX.