

Isaac Mohar, Ph.D., DABT

Senior Toxicologist

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Dr. Mohar is an expert in toxicology and immunology. He has over 15 years of experience in drug and chemical toxicology, tissue immunology, and reproductive biology. Before joining Gradient, Dr. Mohar conducted research aimed at developing a malaria vaccine and identifying the immunological basis of cancer and chronic viral infections. His primary responsibilities at Gradient include assisting clients with evaluation of immunological data, and conducting risk-based human health and chemical safety evaluations. He has authored or co-authored several articles and method chapters in the areas of reproductive genetics, toxicology, and immunology.

Representative Projects

Data Evaluation and Assay Development: Aided in the development of new assays to better understand tumor immunology. Evaluated flow cytometry data to gauge immune responses to skin cancer treatments. Advanced the client's research and development of skin cancer treatments.

Preclinical Drug Development: Developed, contracted, and monitored preclinical testing program for an investigational new drug. Assisted in providing client with a strategy and milestones for IND submission to US FDA.

Sensitization Hazard Assessment: Provided toxicological hazard evaluation of chemicals, such as those present in consumer products or the workplace, for the potential to cause skin or respiratory sensitization.

Immunotoxicity Hazard Assessments: Reviewed evidence for various chemicals to induce immunotoxicity and other immune-related diseases.

Hazard Assessment: Provided toxicological and ecological hazard assessment of chemicals for REACH compliance. Identified and classified potential hazards according to the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Weight-of-Evidence Review: Reviewed weight-of-evidence for ozone to cause asthma or allergic airway disease.

Areas of Expertise

- Toxicology
- Immunology
- Liver Pathology
- Risk Assessment

Education

Ph.D., Environmental Toxicology, University of Washington

B.S., Biochemistry and Molecular Biology, Penn State University

Diplomate of the American Board of Toxicology

Selected Publications

Brempeles, KJ; Yuen, SY; Schwarz, N; **Mohar, I**; Crispe, IN. 2017. "Central Role of the TIR domain-containing adaptor-inducing interferon- (TRIF) Adaptor Protein in Murine Sterile Liver Injury." *Hepatology*. doi: 10.1002/hep.29078

Kyriakides, M; Maitre, L; Stamper, BD; **Mohar, I**; Kavanagh, TJ; Foster, J; Wilson, ID; Holmes, E; Nelson, SD; Coen, M. 2016. "Comparative metabolomic analysis of hepatotoxicity induced by acetaminophen and its less toxic meta-isomer." *Arch Toxicol*. 90(12):3073-3085.

Mohar, I; Brempeles, KJ; Murray, SA; Ebrahimkhani, MR; Crispe, IN. 2015. "Isolation of Non-parenchymal Cells from the Mouse Liver." *Methods Mol Biol*. 1325:3-17.

Murray, SA; **Mohar, I**; Miller, JL; Brempeles, KJ; Vaughan, AM; Kappe, SH; Crispe, IN. 2015. "CD40 is required for protective immunity against liver stage Plasmodium infection." *J Immunol*. 194(5):2268-79.

Mohar, I; Stamper, BD; Rademacher, PM; White, CC; Nelson, SD; Kavanagh, TJ. 2014. "Acetaminophen-induced liver damage in mice is associated with gender-specific adduction of peroxiredoxin-6." *Redox. Biol*. 20(2):377-387.



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