Isaac.Mohar@gradientcorp.com

(206) 858-4371

Areas of Expertise

- Toxicology
- Immunology
- Liver Pathology
- Risk Assessment

Services

- Toxicology & Risk Sciences
- Product Liability
- Biocompatibility Analysis
- Toxicological Risk Assessment (TRA)
- Biocompatibility Support
- Extractable & Leachables
- Nonclinical Safety Assessment Support
- Impurity Assessments
- Permissible Daily Exposures
- Occupational Exposure Limit
- Environmental Risk Assessment of New Drugs

Education

- Ph.D., Environmental Toxicology, University of Washington
- B.S., Biochemistry and Molecular Biology, Penn State University
- Diplomate of the American Board of Toxicology (DABT)

Isaac Mohar, Ph.D., DABT

Principal Scientist

Dr. Mohar is an expert in toxicology and immunology and a board-certified toxicologist. He has over 20 years of experience in drug and chemical toxicology, immunology, and reproductive biology research. Before joining Gradient, Dr. Mohar conducted research aimed at developing a malaria vaccine and identifying the immunological basis of cancer and chronic viral infection tolerance. His primary responsibilities at Gradient include conducting and communicating risk assessments of drugs, biologics, and chemicals. He has authored or co-authored several articles and method chapters in the areas of reproductive genetics, toxicology, and immunology. He is a member of the American College of Toxicology, the American Society of Gene and Cell Therapy, and the Society of Toxicology.

Selected 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 a preclinical testing program for an investigational new drug (IND). Assisted in providing the client with a strategy and milestones for the 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 Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) compliance. Identified and classified potential hazards according to the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

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

Selected Publications

Brempelis, 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 metabonomic analysis of hepatotoxicity induced by acetaminophen and its less toxic meta-isomer." *Arch. Toxicol.* 90(12):3073-3085.

Mohar, I; Brempelis, 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; Brempelis, 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.