Exponent
320 Goddard
Suite 200
Irvine, CA 92618

telephone 949-242-6000
facsimile 949-242-6099
www.exponent.com

Diem HaMai, Ph.D.
Senior Scientist

Professional Profile

Dr. Diem HaMai is a Senior Scientist in Exponent's Health Sciences Center for Toxicology and Mechanistic Biology. With more than 8 years of experience in analyzing the health effects associated with environmental and occupational exposures to chemicals, she specializes in metal-related neuropathologies and chelation chemistry.

Dr. HaMai has conducted research investigating the molecular and biochemical response to inhalation exposure from manganese particulates with a focus on the mechanisms of its underlying Parkinsonism and susceptible life stages. Her research has been published in numerous peer-reviewed scientific journals. She has provided technical evaluations of the physical and metabolic chemistries of manganese as a component in chemotherapeutics and industrial agents.

Dr. HaMai has extensive experience performing toxicological reviews, for which complex issues of disease causation, fate and transport, exposure and risks are identified and characterized. She has submitted technical comments to regulatory agencies on guidance documents, for which novel modes-of-action were developed, and key precursor events, biomarkers, and sensitive subpopulations were differentiated from other disease components. For these reviews and comments, Dr. HaMai rendered her technical expertise in assessing etiological risk components, interspecies concordance, and the biorelevance of experimental models. Dr. HaMai has been involved in exposure reconstructions and human health risk assessments involving the quantification of cancer and non-cancer risks associated with various metal-containing products marketed to the agricultural, industrial, and medical sectors. For these projects, the most current scientific approaches were implemented in the evaluation of potential hazards and the development of remediation strategies.

Academic Credentials and Professional Honors

Ph.D., Toxicology, College of Medicine, University of California at Irvine, 2004
B.A., Political Economies and Biology, Wesleyan University, 1993

Publications

HaMai D, Rinderknecht A, Guo-Sharman K, Kleinman MT, Bondy SC. Decreased expression of inflammation-related genes following inhalation exposure to manganese. Neurotoxicology 2006; 27:395–401.

HaMai D, Bondy SC. Dimethylmercury. In: Encyclopedia of Toxicology. Wexler P (ed). Second Edition, Academic Press, Bethesda, MD, 2005.

HaMai D, Bondy SC. Oxidative basis of manganese neurotoxicity. NY Acad Sci 2004; 1012:129–141.

HaMai D, Bondy SC. Pro- or anti-oxidant manganese: A suggested mechanism for resolution. Neurochem Int 2004; 44:223–229.

Said B, HaMai D, Matsumoto DC. Purification of follicular regulatory protein: possible plasminogen identity. Biochem Biophys Res Comm 2001; 282:1045–1052.

HaMai D, Bondy SC, Becaria A, Campbell A. The chemistry of transition metals in relation to their potential role in neurodegenerative processes. Curr Topics Med Chem 2001; 1:541–551.

Campbell A, HaMai D, Bondy SC. Differential toxicity of aluminum salts in human cell lines of neural origin. Neurotoxicology 2001; 22:63–71.

HaMai D, Campbell A, Bondy SC. Modulation of oxidative events by multivalent manganese complexes in brain tissue. Free Rad Biol Med 2001; 31:763–768.

Presentations

Gatto N, Kelsh M, HaMai D, Shu M, Proctor D. A meta-analysis of the relationship between occupational exposure to hexavalent chromium and cancers of the gastrointestinal tract. Abstract, Society of Toxicology Annual Meeting, Baltimore, MD, March 2009.

HaMai D, Suh M. Speciation profiling and size fractioning of total particulate matter emitted from stationary mobile and area wide sources in California. Poster Presentation, Society of Toxicology Annual Meeting, Baltimore, MD, March 2009.

Proctor D, HaMai D. Human health risk assessment for environmental applications of steel slag: Differences between material-specific and default approaches. Poster Presentation, Society of Toxicology Annual Meeting, Baltimore, MD, March 2009.