SCIENTIST

Summary

I worked for the past 6 years at an environmental consulting firm as an environmental scientist and toxicologist. My areas of interest and expertise include toxicological consultation including hazard identification and dose-response analysis for the development of health-based criteria for human health and ecological receptors. I have experience reviewing and evaluating toxicity data relating to the degree of hazard associated with contaminants and natural toxicants present or entering the food supply, as well as those in soil, sediment, surface water, groundwater, and air. I have worked with other agencies or clients to discuss regulatory requirements and controversial technical and scientific points. I have experience in federal and state regulatory compliance and Phase I Environmental Site Assessments (ESAs). I have conducted exposure and toxicological assessments of chemicals in consumer products, such as personal care and cosmetic products, and performed human health and environmental risk assessments of product and fragrance formulations under the EPA Design for the Environment program. I managed project teams, analyzed environmental data, and conducted ecological and human health risk assessments in accordance with state and federal regulations. I have performed statistical analyses, evaluated human exposures, generated graphical presentations, and wrote reports to summarize my findings. I have been an environmental and toxicological consultant for the past 9 years.

Highlights

- Dose-response analysis using EPA's BMDS software
- Experience in federal and state regulatory compliance and Phase I Environmental Site Assessments (ESAs)
- Review and evaluation of toxicity data relating to the degree of hazard associated with contaminants and natural toxicants present in soil, sediment, surface water, groundwater, and air

- Toxicological assessments of chemicals in consumer products, such as personal care and cosmetic products, and performed human health and environmental risk assessments of product and fragrance formulations under the EPA Design for the Environment program
- Development of health-based criteria for human health and ecological receptors
- Adept at Microsoft Office (Word, PowerPoint, Excel, Access)

Experience

Scientist

October 2009 to June 2016 Aaipharma ï¼ Saint Louis , MO

- 40 hours/week Provide toxicological consultation regarding the fate, transport and toxicological effects of environmental pollutants, munitions-related constituents, emerging contaminants and hazardous materials on vertebrate biological systems.
- Predict adverse effects from occupational and environmental exposures using risk assessment methods.
- Project team management involving delegation of work and tracking of budget.
- Develop site-specific cleanup levels for various receptors and exposure scenarios.
- Conduct ecological and human health risk assessments to determine land use and risks and shape risk management decisions and cleanup requirements.
- Evaluate state regulatory compliance regarding soil and water contamination Assess adequacy of risk-based screening levels and the appropriateness of toxicological surrogates to fill data gaps.
- Perform statistical analyses, graphical presentations and documentation of results.
- Critical review of available literature and toxicological issues to determine potential consequences to environmental and human exposures, including residential and industrial or occupational scenarios.
- Define the pharmacological and toxicological and developmental effects of various toxicants.
- Develop health-based toxicity criteria using EPA software and data from literature.
- Write technical memoranda regarding current toxicological issues (i.e., relative potency factor approach for PAHs, water criterion proposed for dioxins/furans). Provide litigation support.

Associate Toxicologist

February 2006 to October 2009 Public Health Management Corporation ï¼ Benton , PA

- Conduct safety evaluations on consumer products.
- Evaluate human health and environmental risk from exposure to personal care products and fragrances under the EPA Design for the Environment Program.
- Generate reports summarizing findings of product evaluations Initial and final toxicological reviews submitted for certification under various ANSI-approved standards.

Research Assistant

April 1998 to July 2006 University Of Maryland At Baltimore ï¼ City , STATE

- In vitro experiments involving protein and cytotoxicity assays, cell transfection (stable and transient), DNA and RNA extraction and purification for PCR sequencing and primer design, immuno-precipitation, cell transformation, restriction enzyme analyses, FACS, ELISAs, densitometry analyses, IFAs, Cerenkov counts, 3H-thymidine incorporation assays, gel mobility shift assays, subcloning, and mutagenesis.
- In vivo experiments involving genotyping, mouse breeding for gene deletions, collection and maintenance of bone marrow-derived macrophages, and collection of peritoneal macrophages.

Education

M.S : Toxicology , 2006 University of Maryland ï¼ City , State Toxicology
Bachelor of Science : Animal Physiology and Neuroscience , 1994 University of California, San Diego ï¼ City , State , USA

Affiliations

Publications

Bradley, A.E., J.L. Shoenfelt, and J.L. Durda. 2016. Carcinogenicity and mode of action evaluation for alpha-hexachlorocyclohexane: Implications for human health risk assessment. Regul. Toxicol. Pharmacol. 76(2016):152-173.

Shoenfelt, J., R.J. Mitkus, R. Zeisler, R.O. Spatz, J. Powell, M.J. Fenton, K.A. Squibb, and A.E. Medvedev. 2009. Involvement of TLR2 and TLR4 in inflammatory immune responses induced by fine and coarse ambient air particulate matter. J. Leukoc. Biol. 86(2):303-12.

Medvedev, A.E., W. Piao, J. Shoenfelt, S.H. Rhee, H. Chen, S. Basu, L.M. Wahl, M.J. Fenton, and S.N. Vogel. 2007. Role of TLR4 tyrosine phosphorylation in signal transduction and endotoxin tolerance. J. Biol. Chem. 282(22):16042-16053.

Shoenfelt, J.L., and M.J. Fenton. 2006. TLR2- and TLR4-dependent activation of STAT1 serine phosphorylation in murine macrophages is protein kinase C-*-independent. J. Endotoxin. Res. 12(4):231-240.

Keay, S., C.O. Zhang, J.L. Shoenfelt, and T.C. Chai. 2003. Decreased in vitro proliferation of bladder epithelial cells from patients with interstitial cystitis. Urology 61(6):1278-1284.

Zhang, C.O., Z.L. Li, J.L. Shoenfelt, C.Z. Kong, T.C. Chai, D.R. Erickson, K.M. Peters, E.S. Rovner, and S. Keay. 2003. Comparison of APF activity and epithelial growth factor levels in urine from Chinese, African-American, and White American patients with interstitial cystitis. Urology 61(5):897-901.

Keay, S.K., C. Zhang, J.L. Shoenfelt, D.R. Erickson, K. Whitmore, J.W. Warren, R. Marvel, and T. Chai. 2001. Sensitivity and specificity of antiproliferative factor, heparin-binding epidermal growth factor-like growth factor, and epidermal growth factor as urine markers for interstitial cystitis. Urology 57(6 Suppl. 1):9-14.

Chai, T.C., C.O. Zhang, J.L. Shoenfelt, H.W. Johnson Jr., J.W. Warren, and S. Keay. 2000. Bladder stretch alters urinary heparin-binding epidermal growth factor and antiproliferative factor in patients with interstitial cystitis. J. Urol. 163(5):1440-4.

Presentations/Posters: Shoenfelt, J., M.H. Whittaker, A.M. Gebhart, and F. Hammer. 2007. Derivation of a drinking water action level for tris(monochloropropyl) phosphate isomers. Society of Toxicology 2007 Meeting Abstract. Accepted for presentation at the 2007 SOT Meeting, Charlotte, NC. (Abstract 1552). June 2016

Skills

•Develop health-based toxicity criteria using EPA's benchmark dose modeling software and data from literature

•Provide toxicological consultation regarding the fate, transport and toxicological effects of environmental pollutants, munitions related constituents, emerging contaminants and hazardous materials on vertebrate biological systems

•Predict adverse effects from occupational and environmental exposures using risk assessment methods

•Project team management involving delegation of work and tracking of budget

•Develop site-specific cleanup levels for various receptors and exposure scenarios