

David C. Dorman

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Education

Postdoctoral Fellowship in Toxicology (1990-1992): Chemical Industry Institute of Toxicology (CIIT)

Ph.D. in Veterinary Biosciences/Toxicology (1990): University of Illinois at Urbana-Champaign

Residency in Clinical Veterinary Toxicology (1986-1988): University of Illinois at Urbana-Champaign

D.V.M. (1986): Colorado State University, Fort Collins, CO.

Graduate Training in Physical Organic Chemistry (1979-1982): University of Colorado-Boulder

B.A. in Chemistry (1979): University of San Diego, San Diego, CA.

Professional Experience

BOARD CERTIFICATIONS

Diplomate of the American Board of Veterinary Toxicology, 1990

Diplomate of the American Board of Toxicology, 1993 (recertified 1999, 2004)

PROFESSIONAL WORK EXPERIENCE

College of Veterinary Medicine, North Carolina State University

Associate Dean for Research and Graduate Studies (2007-present)

Professor of Toxicology (2007-present), Department of Molecular Biomedical Sciences

Adjunct Professor of Toxicology (2007)

Adjunct Associate Professor of Toxicology (1992-2006)

CIIT Centers for Health Research (previously known as the Chemical Industry Institute of Toxicology)

Senior Scientist, 2002-2007

Head, Biological Sciences Division 2003-2007

Interim Head, Biological Sciences Division 2002-2003

Neurotoxicology Program Manager, 2000-2002

Scientist II (Neurotoxicologist), 1996-2000

Scientist I (Neurotoxicologist), 1993-1996

Coordinator of CIIT Educational Training Programs, 1993 through 2000, 2002

Postdoctoral Fellow, 1990-1992

Adjunct Assistant Director, Illinois Animal Poison Information Center and Visiting Instructor in Toxicology (1988-1990)

Teaching Associate, College of Veterinary Medicine, University of Illinois at Champaign-Urbana (1986-1988)

Associate Veterinarian, Plaza Veterinary Clinic, Walla Walla, WA (1986)

Professional Honors and Awards

Fellow, Academy of Toxicological Sciences (2006)
Who's Who in Medicine and Healthcare (2006)
Sitlington Lecture in Toxicology, Oklahoma State University (2005)
Service Award, American Board of Veterinary Toxicology (2004)
Achievement Award, Society of Toxicology (2004)
Paper of the Year, Society of Toxicology, Inhalation Specialty Section (2002)
Certificate of Appreciation, College of Veterinary Medicine, NCSU (2002)
Faculty Recognition Award, Class of 1995, College of Veterinary Medicine, University of Georgia:
Teacher of the Year, Class of 1994, College of Veterinary Medicine, NCSU (1992)
Environmental Toxicology Scholar; University of Illinois (1988-1990)
John S. Meek Organic Chemistry Teaching Award for Excellence. Department of Chemistry,
University of Colorado-Boulder (1980)
Phi Lambda Upsilon, National Chemistry Honor Society
Phi Zeta, National Veterinary Honor Society

Professional Teaching

- Veterinary Toxicology

Selected Professional Service (since 2001)

Associate Editor, *Neurotoxicology* (2004-present)
Member Editorial Board: *American Journal of Veterinary Research*, 1999-2001
Member Editorial Board: *Neurotoxicology*, 2002-2004
Member Editorial Board: *Inhalation Toxicology*, 2005-present
Chairman, NRC Subcommittee on Emerging and Continuous Exposure Guidance Levels for
Selected Submarine Contaminants (2008-current)
Consultant to Oak Ridge National Laboratory as a member of the Expert Consultation Provisional
Advisory Levels developed for the National Homeland Security Research Center, Office of
Research and Development, U.S. Environmental Protection Agency (2006-current)
Chairman, Society of Toxicology Membership Committee (2006-2008)
Member, NRC Subcommittee on Emerging and Continuous Exposure Guidance Levels for
Selected Submarine Contaminants (2003-2007)
Member, National Academy of Sciences, National Research Council Committee on Animal
Models for Testing Interventions Against Aerosolized Bioterrorism Agents (2005-2006)
Participant, European Center for Ecotoxicology and Toxicology of Chemicals (ECETOC)
Workshop on Testing Strategies to Establish the Safety of Nanomaterials (2005)
President, North Carolina Chapter of the Society of Toxicology (2004)
Panel Manager, Animal Health and Well-Being Panel C, USDA's National Research Initiative
Competitive Grants Program (2002-2004)
President, Society of Toxicology Comparative and Veterinary Specialty Section (2000-2001)
Chairman American Board of Veterinary Toxicology Examination Committee (2000-1)

Selected Publications (since 2006)

Bolon B, Anthony D, Butt M, Dorman DC, Green M, Little P, Valentine WM, Weinstock
D, Yan J, and Sils R (2008). "Current pathology techniques" symposium review:
Advances and issues in neuropathology. *Toxicol Pathol* (in press).

Erikson KM, Dorman DC, Lash LH, and Aschner M (2008). Timing of airborne-manganese exposure in rhesus monkeys is associated with brain regional changes in biomarkers of neurotoxicity. *Neurotoxicology* 29(3):377-85.

Nong A, Teegaurden JG, Clewell HJ III, Dorman DC, and Andersen ME (2008). Pharmacokinetic modeling of manganese in the rat IV: Assessing factors that contribute to brain accumulation during inhalation exposure. *J. Toxicol. Environ. Health A* 71(7):413-26.

Dorman DC, Struve MF, Wong BA, Marshall MW, Gross EA, and Willson G (2008). Respiratory tract responses in male rats following subchronic acrolein inhalation. *Inhal. Toxicol.* 20(3):205-16.

Struve MF, Wong VA, Marshall MW, Kimbell JS, Schroeter JD, and Dorman DC (2008). Nasal uptake of inhaled acrolein in rats. *Inhal. Toxicol.* 20(3):217-25.

Dorman DC, Struve MF, Wong BA, Gross EA, Parkinson C, and Willson GA, Tan YM, Campbell JL, Teegaurden JG, Clewell HJ III, and Andersen ME (2008). Derivation of an inhalation reference concentration based upon olfactory neuronal loss in male rats following subchronic acetaldehyde inhalation. *Inhal. Toxicol.* 20(3):245-56.

Schroeter JD, Kimbell JS, Gross EA, Willson GA, Dorman DC, Tan YM, and Clewell HJ III (2008). Application of physiological computational fluid dynamics models to predict interspecies nasal dosimetry of inhaled acrolein. *Inhal. Toxicol.* 20(3):227-43.

Roberts ES, Struve MF, Thomas RT, and Dorman DC (2008). Gene expression changes following acute hydrogen sulfide (H₂S)-induced nasal respiratory epithelial injury. *Toxicol Pathol* 36(4):560-7.

Wetmore BA, Struve MF, Gao P, Sharma S, Allison N, Roberts KC, Letinski DJ, Nicolich MJ, Bird MG, and Dorman DC (2008). Hematotoxicity of intermittent co-exposure to benzene and toluene in male CD-1 mice. *Chem Biol Interact* 173(3):166-78..

Sochaski MA, McManus BE, Struve MF, Wallace DG, and Dorman DC (2007). Inhibition and recovery of maternal and fetal cholinesterase enzymes following fenitrothion administration in CD rats. *Xenobiotica* 37(1): 19-29.

Teegaurden JG, Dorman DC, Covington TR, Clewell HJ 3rd, and Andersen ME (2007). Pharmacokinetic modeling of manganese I. Dose-dependencies of uptake and elimination. *J. Toxicol. Environ. Health A* 70(18):1493-1504.

Teegaurden JG, Dorman DC, Nong A, Covington TR, Clewell HJ 3rd, and Andersen ME (2007). Pharmacokinetic modeling of manganese II. Hepatic processing after ingestion and inhalation. *J. Toxicol. Environ. Health A* 70(18):1505-1514

Erikson KM, Dorman DC, Lash LH, and Aschner M (2007). Manganese inhalation by rhesus monkeys is associated with brain regional changes in biomarkers of oxidative stress including glutamate transporters. *Toxicol Sci* 97(2):459-466.

Leavens TL, Rao D, Andersen ME, and Dorman DC (2007). Evaluating transport of manganese from olfactory mucosa to striatum by pharmacokinetic modeling. *Toxicol Sci* 97(2):265-278.

Struve MF, McManus BE, Wong BA, and Dorman DC (2007). Basal ganglia neurotransmitter concentrations in rhesus monkeys following subchronic manganese sulfate inhalation. *Am J Indust Med* 50(10):772-778.

Struve MF, McManus BE, Wong BA, and Dorman DC (2007). Preliminary investigation of changes in the sexually dimorphic nucleus of the rat medial preoptic area following prenatal exposure to fenitrothion. *J Appl Toxicol* 27(6):631-636.

Roberts ES, Soucy NV; Bonner AM; Page TJ, Thomas RS, and Dorman DC (2007). Basal gene expression in male and female Sprague-Dawley rat nasal respiratory and olfactory epithelium. *Inhal Toxicol* 19(11):941-949.

Roberts ES, Wong VA, McManus BE, Marshall MW, Lancianese S, and Dorman DC (2006). Changes in intracellular pH play a secondary role in hydrogen sulfide-induced nasal cytotoxicity. *Inhal. Toxicol.* 18:159-167.

Dorman DC and Wong BA (2006). Neurotoxicity of inhaled manganese: A reanalysis of human exposure arising from showering [Commentary]. *Med Hypotheses* 66:199-200.

Yokel RA, Lasley SM, and Dorman DC (2006). The speciation of metals in mammals influences their toxicokinetics and toxicodynamics and therefore human health risk assessment. *J Toxicol Environ Health B Crit Rev* 9:63-85.

Schroeter JD, Kimbell JS, Bonner AM, Roberts KC, Andersen ME, and Dorman DC (2006). Incorporation of tissue reaction kinetics in a computational fluid dynamics model to describe nasal extraction of inhaled hydrogen sulfide in rats. *Toxicol. Sci.* 90(1):198-207.

Leavens TL, Parkinson CU, James RA, House D, Elswick B, and Dorman DC (2006). Respiration in Sprague-Dawley rats during pregnancy. *Inhal. Toxicol.* 18: 305-312.

Roberts ES, McElveen AM, Everitt JI, and Dorman DC (2006). Lethargy and hind limb paralysis in a day-23 time mated pregnant rat. *Lab. Anim.* 35(2): 1-2.

Erikson KM, Dorman DC, Fitsanakis V, Lash LH, and Aschner M (2006). Alterations of oxidative stress biomarkers resulting due to in utero and neonatal exposures of airborne manganese. *Biol Trace Elem Res* 111(1-3):199-215.

Dorman DC, Struve MF, Wong BA, Dye JA, and Robertson ID (2006). Correlation of brain magnetic resonance imaging changes with pallidal manganese concentrations in rhesus monkeys following subchronic manganese inhalation. *Toxicol Sci* 92(1):219-227.

Dorman DC, Struve MF, Marshall MW, Parkinson CU, James RA, and Wong BA (2006). Tissue manganese concentrations in young male rhesus monkeys following subchronic manganese sulfate inhalation. *Toxicol Sci* 92(1):201-210.

Dorman DC, Struve MF, Clewell HJ III, Andersen ME (2006). Application of pharmacokinetic data to the risk assessment of inhaled manganese. *Neurotoxicology* 27(5):752-764.

Taylor MD, Erikson KM, Dobson AW, Fitsanakis VA, Dorman DC, and Aschner M (2006). Effects of inhaled manganese on biomarkers of oxidative stress in the rat brain. *Neurotoxicology* 27(5):788-97.

Schroeter JD, Kimbell JS, Andersen ME, and Dorman DC (2006). Use of a pharmacokinetic-driven computational fluid dynamics model to predict nasal extraction of hydrogen sulfide in rats and humans *Toxicol. Sci.* 94(2): 359-367.

Pasquale-Styles MA, Sochaski MA, Dorman DC, Krell WS, Shah AK, and Schmidt CJ (2006). Fatal human bromethalin poisoning: a case report. *J. Forensic Sci.* 51:1154-1157.

Aschner M and Dorman DC (2006). Manganese: Pharmacokinetics and molecular mechanisms of brain uptake. *Toxicol Rev* 25: 147-154.