



REDMOND, WA • PORTLAND, OR • HILTON HEAD, SC • CAPE ELIZABETH, ME

## **Bryan D. Hardin, Ph.D., Fellow, A.T.S.**

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**Assistant Surgeon General (Retired),  
U.S. Public Health Service  
and  
Former Deputy Director,  
National Institute for Occupational  
Safety and Health**

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### **EDUCATION**

- Ph.D. Environmental Health Sciences, Division of Graduate Studies and Research, University of Cincinnati, 1983
- M.S. Zoology, College of Arts and Sciences, University of Oklahoma, 1972
- B.S. Zoology, College of Arts and Sciences, University of Oklahoma, 1970
- B.S. Mathematics, College of Arts and Sciences, University of Oklahoma, 1966

### **PROFESSIONAL EXPERIENCE**

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|------------------------|--|
| July 2004 – Present    | <b>Veritox, Inc. (formerly GlobalTox, Inc.)</b><br>Principal   |
| June 2001 – June 2004  | <b>GlobalTox, Inc.</b><br>Senior Consultant / Practice Leader  |
| July 2000 – June 2003  | <b>Bryan Hardin Consulting</b>   |
| April 1998 - June 2000 | <b>National Institute for Occupational Safety and Health (NIOSH)</b><br>Deputy Director<br>Atlanta, GA |



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### **PROFESSIONAL EXPERIENCE (continued)**

September 1996 - April 1998	<b>Office of the Director, NIOSH</b> Lead Senior Scientist Washington, DC
January 1996 - August 1996	<b>NIOSH</b> Acting Deputy Director Atlanta, GA
October 1994 - August 1996	<b>Office of the Director, NIOSH</b> Senior Scientist Washington, DC
September 1993 - September 1994	<b>Office of the Assistant Secretary of Labor for Occupational Safety and Health (OSHA), US Department of Labor</b> Special Assistant (on detail from NIOSH) Washington, DC
April 1992 - September 1993	<b>NIOSH</b> Assistant Director and Director of the Washington Office Washington DC
April 1990 - March 1992	<b>Division of Standards Development and Technology Transfer, NIOSH</b> Deputy Director (Acting June 1989 - April 1990) Cincinnati, OH
December 1987 - April 1990	<b>Document Development Branch, Division of Standards Development and Technology Transfer, NIOSH</b> Chief Cincinnati, OH
February 10 - May 15, 1988	<b>Office of the Director, NIOSH</b> Acting AIDS Coordinator Atlanta, GA
October 1986 - November 1987	<b>Office of the Director, Division of Standards Development and Technology Transfer, NIOSH</b> Senior Reviewer (Chief, July 1987 - November 1987) Cincinnati, OH
September 1977 - September 1986	<b>Acute and Subchronic Toxicology Section, Experimental Toxicology Branch, Division of Biomedical and Behavioral Science, NIOSH</b> Research Biologist Cincinnati, OH



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### **PROFESSIONAL EXPERIENCE (continued)**

August 1975 - August 1977      **Environmental Health Sciences, Kettering Laboratory,  
University of Cincinnati Medical Center**  
US Public Health Service Graduate Trainee  
Cincinnati, OH

July 1972 - August 1975      **Criteria Development Branch, Office of Research and  
Standards Development, NIOSH**  
Criteria Manager (Chief, Group B, January - August 1975)  
Rockville, MD

### **UNIFORMED SERVICE**

1972 - 2000: Commissioned Officer, United States Public Health Service. Highest rank: Assistant Surgeon General (O-7, Rear Admiral) Assimilated into Regular Corps 1 July 1975.

1968 - 1972: US Army Reserve. Administrative Officer, Headquarters, 95th Division (Training), Oklahoma City, OK. Highest Rank: Captain (O-3, Adjutant Generals Corps)

1966 - 1968: US Army. Electronics Research and Development Activity, White Sands Missile Range, NM. Administrative Officer; Personnel Officer; Commanding Officer, Headquarters and Headquarters Company. Highest rank: First Lieutenant (O-2, Adjutant Generals Corps)

### **ACADEMIC APPOINTMENTS**

2000 - 2006      **Rollins School of Public Health, Emory University,  
Atlanta, GA**  
Department of Environmental and Occupational Health  
Adjunct Associate Professor

1971 - 1972      **Department of Zoology, University of Oklahoma, Norman, OK**  
Graduate Research Assistant

1970 - 1971      **Department of Zoology, University of Oklahoma, Norman, OK**  
Graduate Teaching Assistant in Human Physiology

### **PROFESSIONAL AFFILIATIONS**

American College of Occupational and Environmental Medicine

American College of Toxicology

American Industrial Hygiene Association

AIHA Journal Editorial Advisory Group, 1995-2000

Emergency Response Planning Committee, 2001-Present



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### **PROFESSIONAL AFFILIATIONS (continued)**

Society of Toxicology

Councilor, Occupational & Public Health Specialty Section, elected May 2004-2006

Teratology Society

Public Affairs Committee, 1985-1988

Constitution and Bylaws Committee, 1993-1996 (Chair 1995-1996)

### **HONORS AND PROFESSIONAL RECOGNITION**

Fellow, Academy of Toxicological Sciences, 2005 - Present

Recipient: "Distinguished Service Award" from the International Safety Equipment Association, (ISEA): November 7, 2001

Named US Public Health Service "Career Scientist of the Year," June 8, 1999

Named "Professional/Scientific Federal Employee of the Year" by the Greater Cincinnati Federal Executive Board and Federal Business Association, June 7, 1983

US Public Health Service Commissioned Corps:

Exceptional Capability Promotion: November 1974; January 1989

Distinguished Service Medal: January 2001

Surgeon General's Exemplary Service Medal: June 1993, January 1997

Outstanding Service Medal: June 1985

Commendation Medal: April 1981; November 1987; October 1997

PHS Citation: December 1990

Unit Commendation Medal: May 1987; February 1989; January 1991; June 1994, June 1996, October 1996; October 1999

Special Assignment Service Ribbon: July 1987, January 1994

Bicentennial Unit Commendation, January 1999

Finalist for 1988 Alice Hamilton Science Award for Excellence in Occupational Safety and Health

Research Advisor for National Research Council Associateship Program

Phi Sigma International Honorary Biological Society

Sigma Xi: The Scientific Research Society

Biographical profile in:

Who's Who in Frontiers of Science and Technology, 2<sup>nd</sup> Ed., 1985

Who's Who in the Midwest, 23<sup>rd</sup> Ed., 1991; 24<sup>th</sup> Ed., 1993

Who's Who in Science and Engineering, 2<sup>nd</sup> Ed., 1993 through 6<sup>th</sup> Ed., 2002

Men of Achievement, 16<sup>th</sup> Ed., 1993

Who's Who in the East, 25<sup>th</sup> Ed., 1994

Who's Who in the World, 12<sup>th</sup> Ed., 1994

Who's Who in Medicine and Healthcare, 2<sup>nd</sup> Ed., 1999 through 6<sup>th</sup> Ed., 2006

Who's Who in America, 55<sup>th</sup> Ed., 2001 through 60<sup>th</sup> Ed., 2006



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### **FEDERAL COURT, ADMINISTRATIVE PROCEEDINGS AND CONGRESSIONAL HEARINGS**

Witness for NIOSH in United States District Court for the Western District of Louisiana, Lafayette-Opelousas Division, in Methane Awareness Resource Group et al. v. United States of America et al. (lawsuit challenging NIOSH and NCI scientific peer review of an epidemiologic study of lung cancer in diesel-exposed underground miners), April 16 and 17, 1997.

Lead witness (Logging, Walking & Working Surfaces, Hazardous Waste, Vehicle Safety, Glycol Ethers, Respiratory Protection, Tuberculosis) or member of CDC/NIOSH testimony team (Bloodborne Disease) at public hearings for proposed OSHA regulations.

Lead witness for DHHS at hearing conducted by the Ad Hoc Subcommittee on Consumer and Environmental Affairs of the Senate Committee on Government Affairs, presenting testimony on potential health risks of police radar guns, August 10, 1992.

Witness for the DHHS Office of General Council at an arbitration hearing, presenting testimony pertaining to the NIOSH CIB #54 on Environmental Tobacco Smoke, San Francisco, CA, November 15, 1991.

Expert witness at an Administrative Law contest of an OSHA citation for exposure to "coal tar pitch volatiles." April 25-27, 1978.

### **PUBLICATIONS**

(A) = Peer Reviewed (B) = Government Reports & Book Chapters (C) = Abstracts & Letters

- 1 (B) Criteria for a Recommended Standard. 1973. Occupational Exposure to Coke Oven Emissions. US Department of Health Education and Welfare, NIOSH.
- 2 (B) Criteria for a Recommended Standard. 1973. Occupational Exposure to Inorganic Arsenic. US Department of Health Education and Welfare, NIOSH.
- 3 (B) Criteria for a Recommended Standard. 1973. Occupational Exposure to Chromic Acid. US Department of Health Education and Welfare, NIOSH.
- 4 (A) Gehrs, C.W., Hardin, B.D. 1974. Production of resting eggs by Diaptomus clavipes Schacht (Copepoda, Calanoida). The American Midland Naturalist 91:486-488.
- 5 (B) Robertson, A., Gehrs, C.W., Hardin, B.D., Hunt, G.W. 1974. Culturing and ecology of Diaptomus clavipes and Cyclops vernalis. Ecological Research Series, EPA-660/3-74-006, Environmental Protection Agency.
- 6 (B) Criteria for a Recommended Standard. 1974. Occupational Exposure to Ammonia. US Department of Health Education and Welfare, NIOSH.
- 7 (B) Criteria for a Recommended Standard. 1975. Occupational Exposure to Xylene. US Department of Health Education and Welfare, NIOSH.



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### **PUBLICATIONS (continued)**

- 8 (B) Criteria for a Recommended Standard. 1975. Occupational Exposure to Inorganic Arsenic-New Criteria 1975. US Department of Health Education and Welfare, NIOSH.
- 9 (A) Hardin, B.D., Manson, J.M. 1980. Absence of dichloromethane teratogenicity with inhalation exposure in rats. *Toxicology and Applied Pharmacology* 52:22-28.
- 10 (A) Hardin, B.D., Bond, G.P., Sikov, M.R., Andrew, F.D., Beliles, R.P., Niemeier, R.W. 1981. Testing of selected workplace chemicals for teratogenic potential. *Scandinavian Journal of Work, Environment, and Health* 7 (Suppl 4): 66-75.
- 11 (C) Andrew, F.D., Montgomery, L.F. Sikov, M.R., Hardin, B.D. 1981. Effects of inhalation exposure to ethoxyethanol on pregnant rats and rabbits. *The Toxicologist* 1(1):30.
- 12 (A) Schuler, R.L., Hardin, B.D., Niemeier, R.W. 1982. *Drosophila* as a tool for the rapid assessment of chemicals for teratogenicity. *Teratogenesis, Carcinogenesis, Mutagenesis* 2(3-4):293-301.
- 13 (A) Hardin, B.D., Niemeier, R.W., Smith, R.J., Kuczuk, M.H., Mathinos, P.R., Weaver, T.E. 1982. Teratogenicity of 2-ethoxyethanol by dermal application. *Drug and Chemical Toxicology* 5(3):277-294.
- 14 (C) Hardin, B.D., Niemeier, R.W., Kuczuk, M.H., Mathinos, P.R., Weaver, T.E. 1982. Teratogenicity of 2-ethoxyethanol by dermal application. *Teratology* 25(2):46.
- 15 (C) Hardin, B.D. 1982. Reproductive toxicity of the glycol ethers. *J Occupational Medicine* 24(4):332-3.
- 16 (A) Hardin, B.D. 1983. Reproductive toxicology of the glycol ethers. *Toxicology* 27(2):91-102.
- 17 (A) Hardin, B.D., Niemeier, R.W., Sikov, M.R., Hackett, P.L. 1983. Reproductive-toxicologic assessment of four epoxides-Ethylene oxide, propylene oxide, butylene oxide, and styrene oxide. *Scandinavian Journal of Work, Environment, and Health* 9(2):94-102.
- 18 (A) Hardin, B.D., Schuler, R.L., McGinnis, P., Niemeier, R.W., Smith, R.J. 1983. Evaluation of propylene oxide for mutagenic activity in three *in vivo* test systems. *Mutation Research* 117(3-4):337-44.
- 19 (B) Schuler, R.L., Hardin, B.D., Niemeier, R.W. 1983. Investigation of *Drosophila* for Teratogenic Screening, in F. Homburger (Ed.), Safety Evaluation and Regulation of Chemicals, S. Karger, Basil, pp 270-276.
- 20 (A) Andrew, F.D., Hardin, B.D. 1984. Developmental effects of inhalation exposure of gravid rabbits and rats to ethylene glycol monoethyl ether. *Environmental Health Perspectives* 57:13-23.



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### **PUBLICATIONS (continued)**

- 21 (A) Hardin, B.D., Goad, P.T., Burg, J.R. 1984. Developmental toxicity of four glycol ethers applied cutaneously to rats. *Environmental Health Perspectives* 57:69-74.
- 22 (A) Schuler, R.L., Hardin, B.D., Niemeier, R.W., Booth, G., Hazelden, K., Piccirillo, V., Smith, K. 1984. Results of testing fifteen glycol ethers in a short-term *in vivo* reproductive toxicity assay. *Environmental Health Perspectives* 57:141-146.
- 23 (A) Hardin, B.D., Lyon, J.P. 1984. Summary and overview of the NIOSH Symposium on Toxic Effects of Glycol Ethers. *Environmental Health Perspectives* 57:273-275.
- 24 (B) Kimmel, C.A., LaBorde, J.B., Hardin, B.D. 1984. Reproductive and developmental toxicology of selected epoxides, Chapter 13 in Kacew S. and Reasor M.J. (Eds) Toxicology and the Newborn, Elsevier Science Publishers, pp 270 – 287.
- 25 (C) Schrader, S.M., Turner, T.W., Hardin, B.D., Niemeier, R.W., Burg, J.R. 1984. Morphometric analysis of human spermatozoa. *J Andrology* 5(1):22.
- 26 (A) Plasterer, M.R., Bradshaw, W.S., Booth, G.M., Carter, M.W., Schuler, R.L., Hardin, B.D. 1985. Developmental toxicity of nine selected compounds following prenatal exposure in the mouse: Naphthalene, p-nitrophenol, sodium selenite, dimethyl phthalate, ethylenethiourea, and four glycol ether derivatives. *Journal of Toxicology and Environmental Health* 15(1):25-38.
- 27 (A) Toraason, M., Stringer, B., Stober, P., Hardin, B.D. 1985. Electrocardiographic study of rat fetuses exposed to ethylene glycol monomethyl ether (EGME). *Teratology* 32(1):33-39.
- 28 (A) Schuler, R.L., Radike, M., Hardin, B.D., Niemeier, R.W. 1985. Pattern of response of intact *Drosophila* to known teratogens. *Journal of the American College of Toxicology* 4(4):291-303.
- 29 (C) Toraason, M., Niemeier, R.W., Hardin, B.D. 1985. Effects of ethylene glycol monomethyl ether (EGME) on maternal calcium and vitamin D metabolism during gestation. *Teratology* 31(3):58A.
- 30 (C) Hardin, B.D., Goad, P.T., Burg, J.R. 1985. Teratogenicity of diethylene glycol monomethyl ether in the rat. *Teratology* 31 (3):54A.
- 31 (C) Hardin B.D. 1985. Glycol ethers - An example of a developmental hazard. *Teratology* 31 (3):34A.
- 32 (C) Chrislip, D.W., McConnell, R.S., Hardin, B.D., Coleman, M.E. 1985. A review of human and animal research involving *N,N*-diethyl-*m*-toluamide (DEET). *Neurobehav. Toxicol. Teratol.* 7(5):527-528.
- 33 (A) Hardin, B.D., Goad, P.T., Burg, J.R. 1986. Developmental toxicity of diethylene glycol monomethyl ether (diEGME). *Fundamental and Applied Toxicology* 6:430-439.





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### **PUBLICATIONS (continued)**

- 34 (A) Sikov, M.R., Cannon, W.C., Carr, D.B., Miller, R.A., Niemeier, R.W., Hardin, B.D. 1986. Reproductive toxicology of inhaled styrene oxide in rats and rabbits. *Journal of Applied Toxicology* 6(3):155-164.
- 35 (A) Toraason, M., Niemeier, R.W., Hardin, B.D. 1986. Calcium homeostasis in pregnant rats treated with ethylene glycol monomethyl ether (EGME). *Toxicology and Applied Pharmacology* 86(3):197-203.
- 36 (C) Hardin, B.D., Eisenmann, C.J. 1986. Relative potency of four ethylene glycol ethers for induction of paw malformations in the CD-1 mouse. *Teratology* 33(3):85C.
- 37 (A) Hardin, B.D., Schuler, R.L., Burg, J.A., Booth, G.A., Hazelden, K.P., MacKenzie, K.M., Piccirillo, V.J., Smith, K.N. 1987. Evaluation of 60 chemicals in a preliminary developmental toxicity test. *Teratogenesis Carcinogenesis Mutagenesis* 7(1):29-48.
- 38 (A) Hardin, B.D., Eisenmann, C.J. 1987. Relative potency of four ethylene glycol ethers for induction of paw malformations in the CD-1 mouse. *Teratology* 35(3):321-328.
- 39 (A) Burg, J.R., Hardin, B.D. 1987. Recommendations for the statistical analysis of Chernoff/Kavlock test data. *Teratogenesis Carcinogenesis Mutagenesis* 7(1):49-54.
- 40 (A) Hardin, B.D. 1987. A recommended protocol for the Chernoff/Kavlock preliminary developmental toxicity test and a proposed method for assigning priority scores based on the results of that test. *Teratogenesis Carcinogenesis Mutagenesis* 7(1):85-94.
- 41 (A) Hardin, B.D., Becker, R., Kavlock, R.J., Seidenberg, J.M., Chernoff, N. 1987. Overview and Summary – Workshop on the Chernoff/Kavlock Preliminary Developmental Toxicity Test. *Teratogenesis Carcinogenesis Mutagenesis* 7(1):119-127.
- 42 (B) Hardin, B.D. (Guest Editor). 1987. Special Issue – Evaluation of the Chernoff/Kavlock Test for Developmental Toxicity, *Teratogenesis Carcinogenesis Mutagenesis* 7(1):1-127.
- 43 (B) Joint Advisory Notice. 1987. Protection Against Occupational Exposure to Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV). US Department of Labor/Department of Health and Human Services, October 19.
- 44 (A) Morrissey, R.E., Schwetz, B.A., Hackett, P.L., Sikov, M.R., Hardin, B.D., McClanahan, B.J., Decker, J.R., and Mast, T.J. 1990. Overview of reproductive and developmental toxicity studies of 1,3-butadiene in rodents. *Environmental Health Perspectives* 86:79-84.
- 45 (B) Stayner, L.T., Meinhardt, T., Hardin, B.D. 1990. Risk assessment activities of NIOSH -- Information resources and needs, in P.-Y. Lu (Ed.) *Proceedings of the Symposium on the Access and Use of Information Resources in Assessing Health Risks from Chemical Exposure*, June 27-29, Oak Ridge National Laboratory, pp 123-127.





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### **PUBLICATIONS (continued)**

- 46 (A) Wright, D.M., Hardin, B.D., Goad, P.T., Chrislip, D.W. 1992. Reproductive and developmental toxicity of N,N-diethyl-m-toluamide in rats. *Fundamental and Applied Toxicology* 19:33-42.
- 47 (B) Cicolella, A., Hardin, B.D., Johanson, G. 1996. Glycol ethers -- New data, new questions, in A. Cicolella, B. Hardin, and G. Johanson (Eds.) *Proceedings of the International Symposium on Health Hazards of Glycol Ethers*, 19-21 April 1994, Pont a Mousson, France., pp 1-2 in *Occupational Hygiene* 2(1-6):1-456.
- 48 (A) Hardin, B.D., Kelman, B.J., Saxon, A. 2002. Adverse human health effects associated with molds in the indoor environment: ACOEM Evidence-based Statement, October 27, <http://www.acoem.org/guidelines/article.asp?ID=52>
- 49 (A) Hardin, B.D., Kelman, B.J., Saxon A. 2003. Adverse human health effects associated with molds in the indoor environment: American College of Occupational and Environmental Medicine (ACOEM) Evidence-based Statement, *Journal of Occupational and Environmental Medicine*, 45: 470-478.
- 50 (A) Kelman, B.J., Robbins, C.A., Swenson, L.J., Hardin, B.D. 2004. Risk from inhaled mycotoxins in indoor office and residential environments. *International Journal of Toxicology*, 23:3-10.
- 51(C) Saxon, A., Hardin, B.D., Kelman, B.J. 2004. Exposure-dose-response: critical considerations in toxicology and immunology alike. *Journal of Allergy and Clinical Immunology*, 114:207.
- 52 (C) Hardin, B.D., Kelman, B.J., Brent, R. 2004. Trichloroethylene and cardiac malformations. *Environmental Health Perspectives*, 112:A607-608.
- 53 (C) Kelman, B.J., Hardin, B.D., Brent, R. 2005. Risk of teratogenicity from trichloroethylene (TCE) and dichloroethylene (DCE) in drinking water. *The Toxicologist*, 79:429.
- 54 (A) Hardin, B.D., Kelman, B.J., Brent, R. 2005 Trichloroethylene and dichloroethylene – A critical review of teratogenicity. *Birth Defects Research Part A: Clinical and Molecular Teratology*, 73(12):931-955.
- 55 (C) Hardin, B.D., Kelman, B.J., Saxon, A. 2007 Reply to Kilburn, Gray and Kramer: *J Allergy Clin Immunol* 118(3):766-767, 2006. *J Allergy Clin Immunol* 119(1):256-257.

### **RECENT PRESENTATIONS**

June 4, 2007: Recently published evaluations of the association of mycotoxins and health effects in indoor environments, in *Indoor Mycotoxins Update – IH Issues, Biomonitoring, Occupational Medicine*. American Industrial Hygiene Conference and Exposition, June 2-7, 2007, Philadelphia, PA.



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### **RECENT PRESENTATIONS (continued)**

May 9, 2007: Perchlorate – A review of animal data, in Perchlorate and Other Environmental Chemicals – Mechanistic, Clinical, and Epidemiological Studies of Effects on Thyroid function. American Occupational Health Conference, May 6-9, 2007, New Orleans, LA.

October 16 and 18, 2006: Molds in Indoor Environments – Exposure & Health Effects, in Construction Solutions, Portland, OR and Seattle, WA.

November 9, 2005: Mycotoxins and human disease in When Fungi Aren't Fun. The American College of Asthma, Allergy, and Immunology, November 4-9, 2005, Anaheim, CA.

June 16, 2005: Review of the current status of medical literature on mold. Mealey's Mold Litigation Conference, Marina del Rey, CA.

May 4, 2005: A tale of two solvents – 2-ethoxyethanol and trichloroethylene. Invited seminar at the Molecular and Environmental Toxicology Center, College of Agricultural and Life Sciences, Schools of Medicine, Veterinary Medicine, and Pharmacy, University of Wisconsin, Madison, WI.

February 16, 2005: Summary and implications of the ACOEM evidence-based statement and the IOM report on Damp Indoor Spaces and Health, in Toxicological and Occupational Medicine Perspectives on Molds and Mycotoxins – Update and Implications for IH, 2005 AIHA TeleWeb Virtual Seminar Series.

July 26, 2004: Indoor mold and human health - What is the risk? ASTM Boulder Conference on Mold in the Indoor Environment: Assessment, Health and Physical Effects, and Remediation, American Society for Testing and Materials International, July 25-30, 2004, Boulder, CO.

May 12, 2004: Summary and implications of the American College of Occupational and Environmental Medicine's evidence-based statement on adverse effects associated with molds in the indoor environment, in Roundtable 236 - Toxicological and Occupational Medicine Perspectives on Mold and Mycotoxins; Update and Implications for Industrial Hygiene, American Industrial Hygiene Conference and Exposition, May 8-13, 2004, Atlanta, GA.

May 6 and 7, 2004: T2-Mycotoxins in Bioterrorism - The Biotoxins, Uses and Abuses, sponsored by the California Association of Public Laboratories Annual Institute for Laboratorians, Sacramento (May 6, Course 060504) and Long Beach (May 7, Course 070504), California.

July 17, 2003: A scientific view of the health effects of mold, at The Growing Hazard of Mold Litigation, co-sponsored by the US Chamber of Commerce Institute for Legal Reform and the Manhattan Institute Center for Legal Policy, Washington D.C.

May 6, 2003. The toxicology of "toxic mold" in An Overview of the Issues of Indoor Mold American Occupational Health Conference, May 2-9, 2003, Atlanta, GA.



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### **RECENT PRESENTATIONS (continued)**

April 10, 2003: Glycol ether retrospective, Invited lecture for EHS 503b, Introduction to Toxicology, Yale Occupational and Environmental Medicine Program, New Haven, CT.

April 9, 2003: Toxic (?) Mold, Invited lecture for the Faculty and Fellows Seminar, Yale Occupational and Environmental Medicine Program, New Haven, CT.

November 16, 2000: Invited Keynote address, An overview of occupational safety and health risks – Which are greatest? General Session, American Society of Safety Engineers Symposium on Controlling Health Risks in the Workplace, November 16-17, 2000, Scottsdale, AZ.

### **SELECTED FEDERAL INTERAGENCY ACTIVITIES**

Member, Expert Panel to Assess the Validation Status of FETAX (Frog Embryo Teratogenesis Assay) for the NIEHS/NTP Interagency Coordinating Committee on the Validation of Alternative Methods (ICCVAM) and the Interagency Center for the Evaluation of Alternative Toxicological Methods (NICEATM). February - June 2000

Member, Endocrine Disruptor Screening and Testing Advisory Committee, US EPA, November 1996 to June 1998

Member, Integrated Risk Information System (IRIS) Peer Review Panel for Vinyl Chloride, US EPA, June 3-4, 1997

Co-Chair of Surgeon General's Task Force on Clarification of the Mission and Use of the Commissioned Corps of the US Public Health Service, September - November, 1996

Committee on the Environment and Natural Resources, January 1994 - December 1996  
Subcommittee on Risk Assessment  
Subcommittee on Toxic Substances, Hazardous & Toxic Waste

Interagency Working Group on Environmental Justice, July 1994 - July 1995  
Task Force on Interagency Projects

Committee to Coordinate Environmental Health Related Programs (Chaired by the Assistant Secretary for Health, DHHS). Chairman of Task Groups charged with:

Evaluation of the Implementation and Relevance in 1990 of "Risk Assessment and Risk Management of Toxic Substances – 1985", February to April 1990

Review of EPA Draft Health Assessment Document for 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) and Related Compounds Chapter 7 -- Epidemiology/Human Data, 1993

Review of EPA Draft Health Assessment Document for 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) and Related Compounds Chapter 9 - Risk Characterization, May to August 1994



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### **SELECTED FEDERAL INTERAGENCY ACTIVITIES (continued)**

TSCA Interagency Testing Committee, April 1987 to July 1989 (Vice-Chairman, 1988; Chairman, 1989)

TSCA Comprehensive Assessment Information Rule Interagency Workgroup

National Toxicology Program: Reproductive and Developmental Toxicology Work Group, responsible for coordinating NTP-sponsored reproductive research, September 1980 - September 1986

NIOSH Working Group to develop "A Proposed National Strategy for the Prevention of Work-Related Disorders of Reproduction" May 1985 to April 1987 (Chairman)

Office of Toxic Substances, EPA: Toxicology Testing Work Group to develop testing guidelines for implementation of the Toxic Substances Control Act, September to December 1978

### **SELECTED INTERNATIONAL ACTIVITIES**

International Consultation on the International Labor Organization WorkSafe Program, Geneva, Switzerland, December 13-14, 1999.

VI Latin American Congress on Occupational Health – ALSO '99 / XIX Colombian Congress on Occupational Medicine and Health, Cartagena, Colombia, September 14-17, 1999 (Scientific presentation on Experimental Studies of the Reproductive Effects of the Ethylene Glycol Ethers)

Joint EU/US Conference on Health and Safety At Work, organized as a part of the Joint EU/US Action Plan under the New Transatlantic Agenda of 1995, Luxembourg, October 13-16, 1998. (Head of NIOSH delegation, session co-chair, and presenter of closing remarks for the US delegation).

International Seminar of Governmental Entities in the Area of Labor Safety and Health, sponsored by FUNDACENTRO, Ministerio do Trabalho, and International Labor Office, Brasilia (March 17-19, 1997) and Sao Paulo (March 20-21, 1997), Brazil.

International Labor Office / International Occupational Safety and Health Information Centre: Member of Steering Committee for International Hazard Datasheets on Occupations, March 1995 to 1998.

Planning and Scientific Committees for International Symposium on Health Hazards of Glycol Ethers, Co-sponsored by French INRS, Swedish NIOH, and NIOSH in Nancy, France, April 19-21, 1994. (Conference President and presenter of opening and closing remarks).



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### **SELECTED INTERNATIONAL ACTIVITIES (continued)**

International Agency for Research on Cancer: Member of Working Group on the Evaluation of the Carcinogenic Risk of Chemicals to Humans (drafted "Reproductive and Developmental Effects" sections of monographs):

Occupational Exposures of Hairdressers and Barbers and Personal Use of Hair Colourants; Some Hair Dyes, Cosmetic Colourants, Industrial Dyestuffs and Aromatic Amines, Lyon, October 6-13, 1992 (IARC Monographs, Volume 57).

Some Chemicals Used in Plastics and Elastomers, Lyon, June 11-18, 1985 (IARC Monographs, Volume 39).

U.S. – Mexican Joint Technical Seminar on the Iron and Steel Industry, Occupational Safety and Health Prevention Systems, Mexico City, Mexico, February 10-12, 1992.

Tri-Lateral meeting of United States, Canadian, and European Economic Community representatives regarding international harmonization of hazardous chemical labeling standards, Brussels, Belgium, April 29-30, 1991.

WHO Collaborating Centers in Occupational Health - Informal consultation of the planning group, Geneva, Switzerland, October 7-9, 1991.

World Health Organization - International Programme on Chemical Safety:

Chairman of Expert Consultation on Harmonization in Chemical Hazard Communication, Geneva, Switzerland, April 24-26, 1991.

Working Group to draft "Principles and Methods for the Assessment of Risk from Exposure to Chemicals," Carshalton, Surrey, England, February 26 to March 2, 1990.

Task Groups for Environmental Health Criteria Documents on Glycol Ethers, 1-Propanol, and 2-Propanol, Carshalton, Surrey, England, April 4-14, 1989 (Chairman of 1- and 2-Propanol Task Groups).

Coke Oven Emissions as an Occupational Health Hazard, presented at the Symposium on the Quality of the Environment and the Iron and Steel Industry, Results and Prospects, sponsored by the Commission of the European Community, 24-26 September 1974, Luxembourg, (Grand Duchy).

### **SELECTED PROFESSIONAL ACTIVITIES**

Member, American National Standards Institute, Accredited Standards Committee Z88, Appeals Panel appointed to hear an appeal of action taken by the Z88 Respiratory Protection Committee and Z88.2 Practices for Respiratory Protection Subcommittee, May – July 2005.



## **Bryan D. Hardin, Ph.D., Fellow, A.T.S.**

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### **SELECTED PROFESSIONAL ACTIVITIES (continued)**

Chair, NIOSH National Occupational Research Agenda Program Review (Dermal Exposure Research Program), Tyson's Corner, VA, December 14-15, 2004.

Chair, Expert Review Panel for research proposals under the NIOSH National Occupational Research Agenda, Silver Spring, MD, July 21-22, 2004.

Member, Editorial Advisory Board, *Compliance Magazine* July 2004 – Present.

Member, Scientific Advisory Council for research program jointly sponsored by the Asphalt Institute, the Asphalt Paving Environmental Council and the Asphalt Roofing Environmental Council, 2004 – Present.

Lecturer: Health Effects of Mold, in Mold Assessment and Remediation in Buildings, periodic training course sponsored by The Environmental Institute and Compass Environmental, Inc., Marietta, GA, October 2001 - December 2003.

Co-Instructor: International Environmental Health (EOH 500), Rollins School of Public Health, Emory University, Atlanta, GA, Fall semesters 2000 and 2001.

Member, Advisory Board for the Risk Education Project, American Chemical Society, 1997 – 2000.

Member, Steering Committee, ILSI/Risk Science Institute - EPA Project on Human Variability, 1995-1997.

Ph.D. Qualifying and Dissertation Committees, Kettering Laboratory, University of Cincinnati College of Medicine.

Guest lecturer in graduate-level courses in environmental and occupational health risk assessment and policy at the University of Cincinnati, Uniformed Services University of Health Sciences, and George Washington University.

### **RECENT CONTINUING EDUCATION**

Advanced biological sampling techniques and laboratory analysis for indoor environmental quality investigation – mold, bacteria, allergens, and all others. PDC 502. American Industrial Hygiene Conference and Exposition, June 3, 2007, Philadelphia, PA.

Allergy and Allergic Disease – A Primer for Toxicologists, AM04, Society of Toxicology Annual Meeting, March 25, 2007, Charlotte, NC.

Allergy and Allergic Disease – A Primer for Toxicologists, AM04, Society of Toxicology Annual Meeting, March 25, 2007, Charlotte, NC.



## **Bryan D. Hardin, Ph.D., Fellow, A.T.S.**

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### **RECENT CONTINUING EDUCATION (continued)**

Physiologically Based Pharmacokinetic Modeling for Risk Assessment Applications. PM11, Society of Toxicology Annual Meeting, March 25, 2007, Charlotte, NC.

Essentials of Metal Toxicology. AM06, Society of Toxicology Annual Meeting, March 5, 2006, San Diego, CA.

Neuropathology for the Toxicologist. PM12, Society of Toxicology Annual Meeting, March 5, 2006, San Diego, CA.

The FUN of Aerosols – Fine, Ultrafine and Nano Particles in Workplace Atmospheres. PDC 427, American Industrial Hygiene Conference and Exposition, May 22, 2005, Anaheim, CA.

Welding, Manganese, and Parkinsonism. Puget Sound Occupational & Environmental Medicine Grand Rounds, University of Washington Northwest Center for Occupational Health and Safety, April 14, 2005, Seattle, WA.

Fundamentals of nanotechnology – Chemistry, exposure, health/environmental assessments and societal impacts. SR01, Society of Toxicology Annual Meeting, March 6, 2005, New Orleans, LA.

Immunology for toxicologists. AM05, Society of Toxicology Annual Meeting, March 6, 2005, New Orleans, LA.

Development and interpretation of toxicokinetic data for risk and safety assessment. PM09, Society of Toxicology Annual Meeting, March 6, 2005, New Orleans, LA.

Moisture Control, Mold and the Science Within the Building. PDC 506, American Industrial Hygiene Conference and Exposition, May 9, 2004, Atlanta, GA

Symposium: Fungal Contamination - Current Concerns and Industrial Hygiene Practice, American Industrial Hygiene Conference and Exposition, May 8, 2004, Atlanta, GA

Microorganisms in Indoor Air – Health Complaints, Sampling Strategies and Interpretation; American Industrial Hygiene Conference and Exposition, San Diego, CA, June 2, 2002.

Two-Stepping Through Toxicogenomics – A Basic Primer: Society of Toxicology Continuing Education Course, Nashville, TN, March 2002.

Mold and Mildew in Indoor Environments: American Public Health Association Continuing Education Course #1005, Atlanta, GA, October 20, 2001.

First Annual International Symposium on the Impact of Mold on Health and Indoor Air Quality, sponsored by Aerias LLC and Air Quality Sciences, Inc., Atlanta, GA, October 18-19, 2001.





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## **Bruce J. Kelman, Ph.D., D.A.B.T., F.A.T.S.**

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### **Education and Professional Certifications**

Diplomate of the American Board of Toxicology, 1980.

Renewal certification, 1985-1990.

Renewal certification, 1991-1995.

Renewal certification, 1996-2000.

Renewal certification, 2001-2005.

Renewal certification, 2006-2010.

Registered Toxicologist (United Kingdom and EUROTOX registries), 2005-2010.

Fellow, Academy of Toxicological Sciences, 2006-2011.

Post Doctoral Research Associate, University of Tennessee, Comparative Animal Research Laboratory, Oak Ridge, Tennessee, 1974-1976.

Ph.D., Department of Physiology and Pharmacology, College of Veterinary Medicine, University of Illinois, 1975.

M.S., Department of Physiology and Pharmacology, College of Veterinary Medicine, University of Illinois, 1971.

B.S., Department of Physiology and Biophysics, College of Liberal Arts and Sciences, University of Illinois, 1969.

### **Research and Administrative Appointments**

1998-present	<b>Veritox, Inc. (formerly GlobalTox, Inc.)</b> <i>Principal and President</i>	<b>Redmond, Washington</b>
1994-1998	<b>Golder Associates Inc.</b> <i>National Director, Health and Environmental Sciences</i>	<b>Redmond, Washington</b>
1993-1994	<b>Golder Associates Inc.</b> <i>Manager, Toxicology and Risk Assessment Services</i>	<b>Redmond, Washington</b>
1990-1993	<b>Failure Analysis Associates, Inc.</b> <i>Manager, Toxicology and Managing Scientist</i>	<b>Menlo Park, California</b>
1989-1990	<b>Battelle, Pacific Northwest Laboratories</b> <i>Manager, New Projects Development, Life Sciences Center</i>	<b>Richland, Washington</b>
1985-1989	<b>Battelle, Pacific Northwest Laboratories</b> <i>Department Manager, Biology and Chemistry Department</i>	<b>Richland, Washington</b>
1986-1989	<b>Battelle International Toxicology Office</b> <i>Co-Manager</i>	
1984-1985	<b>Battelle, Pacific Northwest Laboratories</b> <i>Associate Department Manager, Biology and Chemistry Department</i>	<b>Richland, Washington</b>
1981-1983	<b>Battelle, Pacific Northwest Laboratories</b> <i>Section Manager, Developmental Toxicology Section, Biology Department</i>	<b>Richland, Washington</b>
1980-1981	<b>Battelle, Pacific Northwest Laboratories</b> <i>Associate Section Manager, Developmental Toxicology Section, Biology Department</i>	<b>Richland, Washington</b>
1979-1980	<b>Battelle, Pacific Northwest Laboratories</b> <i>Senior Research Scientist, Developmental Toxicology Section, Biology Department</i>	<b>Richland, Washington</b>
1976-1979	<b>Comparative Animal Research Laboratory, University of Tennessee</b> <i>Assistant Professor and Group Leader, Prenatal Toxicology Group</i>	<b>Oak Ridge, Tennessee</b>



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### **Teaching Appointments**

1983-2004	<b>New Mexico State University</b> <i>Adjunct Professor</i>	<b>Las Cruces, New Mexico</b>
1979-1980	<b>Joint Center for Graduate Studies</b> <i>Lecturer</i>	<b>Richland, Washington</b>
1975-1979	<b>Oak Ridge Associated Universities</b> <i>Lecturer</i>	<b>Oak Ridge, Tennessee</b>

### **Professional Affiliations and Associated Appointments**

#### Society of Toxicology (1978-present)

Program Committee, 2004-2007

Toxicology Initiative Task Force

Member, 1993-1996

Chairman, 1995-1996

Tox 90s Educational Issues Task Force, Member, 1993-1994

Ethics Committee, Member, 1991-1993

Long Range Planning Committee, Member, 1986-1987

Nominations Committee, Member, 1983

Comparative and Veterinary Specialty Section, Charter Member 1994-present

Inhalation Specialty Section, Member, 1986-present

Ethical, Legal, and Social Specialty Section

Organizing Committee Councilor, 2003-2004

Charter Member, 2005-present

Councilor, 2005-2007

Molecular Biology Specialty Section

Organizing Committee President, 1988

Charter Member, 1989-present

Founding President, 1989

Councilor, 1989-1990

Metals Specialty Section

Organizing Committee Vice President, 1980-1981

Charter Member, 1981-present

Secretary/Treasurer, 1981-1983

President-Elect, 1985-1986

President, 1986-1987

Councilor, 1987-1988

Occupational Health Specialty Section, Charter Member, 1998-present

Reproductive and Developmental Specialty Section, Charter Member, 1983-present

Risk Assessment Specialty Section, Member, 1991-1998

Northern California Chapter, Member, 1990-1993

Pacific Northwest Chapter

Charter Member, 1984-1990, 1994-present

Councilor, 1985-1987

Vice President-Elect, 2005-2006

President, 2007-2008



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### **Professional Affiliations and Associated Appointments (Cont.)**

British Toxicology Society (2006-present)  
American Society for Pharmacology and Experimental Therapeutics, (1981-present)  
    Drug Metabolism Division Member, 1981-1989  
    Toxicology Section Member, 1989-1992  
    Toxicology Division  
        Charter Member, 1992-present  
        Executive Committee, 1992  
American College of Toxicology, Member, (1993-present)  
American College of Occupational and Environmental Medicine, Associate Member, (1998-present)  
American Academy of Veterinary and Comparative Toxicology, Fellow, (1985-present)  
Society for Experimental Biology and Medicine, Member, (1978-present)  
Teratology Society, Member, (1978-present)  
    Constitution and Bylaws Committee Member, 1992-1994  
    Committee on Expert Testimony, 1998-1999  
Radiation Research Society, Member, (1981-present)

### **Review and Advisory Functions**

External Advisory Board of the School of Public Health and Community Medicine, University of Washington (2005-present)  
Reviewer, FY06 NIOSH National Occupation Research Agenda Program Project Review (2005)  
Chairman, United States Environmental Protection Agency Arsenic Health Effects Research Peer-Review Panel, (1997)  
National Research Council/National Academy of Science, Committee on Possible Effects of Electromagnetic Fields on Biologic Systems (1993-1996)  
Scientific Advisory Committee, Vth COMTOX Symposium on Toxicology and Clinical Chemistry of Metals (1992-1995)  
National Institutes of Health, Special Study Section on Possible Role of Metallothionein in Carcinogenesis (1993)  
Risk Series Advisory Board, Waste-Management Education and Research Consortium Teleconference Series (1992)  
Governor's Biotechnology Targeted Sector Advisory Committee, State of Washington (1989-1990)  
Board of Directors, Washington State Biotechnology Association (1989-1990)  
Advisory Council, Seattle Fire Department and the Washington State Fire Protection Services (1988-1990)  
Reviewer, American Heart Association (1988-1990)  
Reviewer, Department of Energy (1976-1990)  
Reviewer, March of Dimes Birth Defects Foundation (1983-1990)  
Industrial Advisory Board, Instructional Program in Toxicology, New Mexico State University (1982-1994)  
Science Review Panel for Health Research, U.S. Environmental Protection Agency (1981-1989)  
Reviewer, Air Force Office of Scientific Research (1985-1987)  
Site review team at Harbor General Hospital for NICHHD (1978)  
Reviewer, *International Journal of Toxicology*, *Journal of Occupational and Environmental Health*, *Teratology*, *Toxicology in Vitro*, *Toxicological Sciences*

### **Editorial Appointments**

Program Leader, Environmental Risk Management Series, Waste-management Education and Research Consortium Teleconference Series (1992-1993)  
Editorial Board, *Biological Effects of Heavy Metals*, CRC Press (1987-1993)  
Co-Editor, *Interactions of Biological Systems with Static and ELF Electric and Magnetic Fields*, NTIS (1987)  
Editorial Board, *Trophoblast Research*, Plenum Publishing Corporation (1983-1993)



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### **Other Professional Activities and Honors**

Invited speaker, American Industrial Hygiene Conference & Exposition, June 2-7, 2007  
Invited lecturer, Good Samaritan Hospital Grand Rounds, Phoenix, AZ, March 15, 2007  
Invited speaker, Korea Environment of Merchandise Testing Institute, October 20, 2006  
Invited speaker, Korea Food and Drug Administration, October 18, 2006  
Invited speaker, Annual Meeting of the Risk and Insurance Management Society, April 23-27, 2006  
Invited speaker, Annual Meeting of the Pacific Northwest Association of Toxicologists, September 8-9, 2005  
Featured speaker, Annual Meeting of the St. Louis Chapter of the American Industrial Hygiene Association, March 11, 2005  
Invited speaker, International Conference on Heavy Metal Toxicology, Taipei, Taiwan, October 15-16, 2004  
Co-chair and speaker, roundtable, "Does funding influence research integrity?" 43<sup>rd</sup> Annual Meeting of the Society of Toxicology, 2004  
Invited speaker, Puget Sound Occupational and Environmental Medicine Grand Rounds, University of Washington, October 9, 2003  
Invited speaker, 1<sup>st</sup> International Symposium on National Toxicology Programs, Seoul, Korea, November 25, 2002  
Invited speaker, Korean Occupational Health and Safety Administration, Seoul, Korea, November 26, 2002  
Chairman, Safety Evaluation, 41st Annual Meeting of the Society of Toxicology, 2002  
Chairman, Safety Evaluation, 40th Annual Meeting of the Society of Toxicology, 2001  
Best IEQ-related paper published in 2000 in U.S. industrial hygiene journals. American Industrial Hygiene Association, 2001  
Chairman, Risk Assessment, 38th Annual Meeting of the Society of Toxicology, 1999  
Chairman, Risk Assessment, 37th Annual Meeting of the Society of Toxicology, 1998  
Invited speaker, Congressional Commission on Risk Assessment and Risk Management, July 6, 1995  
Invited speaker, Risk Assessment of Electromagnetic Fields, Electric Power Research Institute Annual Meeting, March 16, 1994  
Chairman, Educator's Forum, 33rd Annual Meeting of the Society of Toxicology, 1994  
Lead Presenter and Technical Producer, Environmental Risk Management Videoconference Series: Identifying the Gap Between Technical Issues and Social Concerns, April 14, 1993  
Invited speaker, Health Risk Assessment for Environmental Chemicals, Annual Meeting of the American Chemical Society, March 1993  
Invited lecturer, 3rd International Conference on Electrical and Electronic Materials, June 9, 1992  
Invited lecturer, 8th International Congress on Thermal Insulation, March 9, 1992  
Chairman, Risk Assessment II Session: 31st Annual Meeting of the Society of Toxicology, 1992  
Invited panelist and lecturer, "Ask the Experts," Hazardous Waste Management Workshop, January 29, 1992  
Invited panelist and lecturer, Risk Associated with Hazardous and Radioactive Wastes, Hazardous/Radioactive Waste Management Videoconference Training Series, WERC, April 24, 1991  
Chairman, Cholinesterase Inhibitor Session: 30th Annual Meeting of the Society of Toxicology, 1991  
Organizing Chairman, Molecular Biology Techniques Workshop, Annual Meeting of the Health Effects Institute, 1990  
Chairman, Respiratory Physiology Session: 29th Annual Meeting of the Society of Toxicology, 1990  
Chairman, Molecular/Cellular Session: 28th Annual Meeting of the Society of Toxicology, 1989  
Co-Chairman, Toxicology/Metals Sessions: "11th Rochester Trophoblast Conference and the European Placenta Group," 1988  
Co-Chairman, symposium: "Acute Radiation-Induced Injury," 26th Annual Meeting of the Society of Toxicology, 1987  
Chairman, symposium: "Current Understanding of Metal-Membrane Interactions," 25th Annual Meeting of the Society of Toxicology, 1986  
Co-Chairman, workshop: "Animal Placental Perfusion," 10th Trophoblast Conference, 1985  
Co-Chairman, symposium: "Interactions of Biological Systems with Static and ELF Electric and Magnetic Fields," 23rd Annual Hanford Life Sciences Symposium, 1984  
Chairman, Metals Session: 23rd Annual Meeting of the Society of Toxicology, 1984



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### **Other Professional Activities and Honors (Cont.)**

Chairman and invited participant: Metabolism Session, "Developmental and Reproductive Toxicity of Metals," 15th Annual Rochester International Conference on Environmental Toxicity, 1982  
Award of Merit, Northwest Chapter of the Society for Experimental Biology and Medicine, 1980  
Invited participant, symposium: "Transport Processes as Sites of Action for Chemicals," Joint Fall Meeting of ASPET and SOT, 1978

### **Selected Continuing Education**

REACH: A New Framework for the Regulation of Chemicals, March 25, 2007, Society of Toxicology Continuing Education Course (1 instructional hour)  
Physiologically Based Pharmacokinetic Modeling for Risk Assessment Applications, March 25, 2007, Society of Toxicology Continuing Education Course (4 instructional hours)  
Allergy and Allergic Disease: A Primer for Toxicologists, March 25, 2007, Society of Toxicology Continuing Education Course (4 instructional hours)  
Comparative Endocrine Toxicology, March 5, 2006, Society of Toxicology Continuing Education Course (4 instructional hours)  
Neuropathology for the Toxicologist, March 5, 2006, Society of Toxicology Continuing Education Course (4 instructional hours)  
4<sup>th</sup> Annual Medical Toxicology Spring Course, March 2-3, 2006, American College of Medical Toxicology (16 instructional hours)  
NIOSH Spirometry Training Course, October 13-14, 2005, Allenmoore Hospital (16 instructional hours)  
Puget Sound Occupational & Environmental Medicine Grand Rounds: Welding, Manganese, and Parkinsonism, April 14, 2005 (1 instructional hour)  
Development and Interpretation of Toxicokinetic Data for Risk and Safety Assessment, March 6, 2005, Society of Toxicology Continuing Education Course (4 instructional hours)  
Basic Neurotoxicology, March 21, 2004, Society of Toxicology Continuing Education Course (4 instructional hours)  
Skin Sensitization and Allergic Contact Dermatitis, March 21, 2004, Society of Toxicology Continuing Education Course (4 instructional hours)  
The Importance of the Placenta in Developmental Toxicity and Human Health Risk Assessment, June 24, 2003, Teratology Continuing Education Course (4 instructional hours)  
Evaluation of Immunomodulation in Safety Assessment, March 9, 2003, Society of Toxicology Continuing Education Course (4 instructional hours)  
Cutaneous Toxicity – Current Methods and Concepts in Safety Evaluation and Relevance to Human Exposure, March 9, 2003, Society of Toxicology Continuing Education Course (4 instructional hours)  
A Practical Approach to Blood and Lymphoid Tissue in Toxicology Assessments, March 17, 2002, Society of Toxicology Continuing Education Course (4 instructional hours)  
Toxicology of Naturally-Occurring Toxins, March 17, 2002, Society of Toxicology Continuing Education Course (4 instructional hours)  
Food Allergy and Intolerance, March 25, 2001, Society of Toxicology Continuing Education Course (4 instructional hours)  
Mold and Mildew in Indoor Environments, November 12, 2000, American Public Health Association Continuing Education Institution Course (8 instructional hours)  
Metal Exposure and Toxicity of the Respiratory Tract, March 19, 2000, Society of Toxicology Continuing Education Course (4 instructional hours)  
Pulmonary Immunotoxicology, March 19, 2000, Society of Toxicology Continuing Education Course (4 instructional hours)  
Gene Targeting/Null Models in Toxicology, March 14, 1999, Society of Toxicology Continuing Education Course (4 instructional hours)  
Application of Transgenic Models in Toxicology, March 14, 1999, Society of Toxicology Continuing Education Course (4 instructional hours)  
Effective Risk Communications: Avoiding the Pitfalls, March 1, 1998, Society of Toxicology Continuing Education Course (4 instructional hours)



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### **Selected Continuing Education (Cont.)**

- International Harmonization of Non-Clinical Toxicology Requirements: Regulation vs. Practice, March 1, 1998, Society of Toxicology Continuing Education Course (4 instructional hours)
- The Role of Toxicology in Assessing the Safety and Risk of New Food Technologies and Practices, March 9, 1997, Society of Toxicology Continuing Education Course (4 instructional hours)
- Epidemiology for Toxicologists, March 10, 1996, Society of Toxicology Continuing Education Course (4 instructional hours)
- Quantitative Uncertainty Analysis in Risk Assessment: Monte Carlo Techniques, March 10, 1996, Society of Toxicology Continuing Education Course (4 instructional hours)
- Comparative Endocrine Toxicology, March 5, 2006, Society of Toxicology Continuing Education Course (4 instructional hours)
- Neuropathology for the Toxicologist, March 5, 2006, Society of Toxicology Continuing Education Course (4 instructional hours)

### **Publications**

(1) = Research Paper; (2) = Review; (3) = Abstract

1. (3) Kelman, B.J. and A.R. Twardock. 1975. Calcium, sodium, and potassium movements across the perfused guinea pig placenta. *Fed. Proc.* 34: 558.
2. (3) Kelman, B.J. 1976. Movement of methyl mercury across the perfused guinea pig placenta. *Fed. Proc.* 35: 364.
3. (1) Kelman, B.J., G.E. Jarboe, and L.B. Sasser. 1976. Effect of red-cell-bound mercury on measurements of tissue mercury distribution. *Bull. Environ. Contam. Toxicol.* 16: 612-617.
4. (1) Kelman, B.J. 1977. Inorganic mercury movements across the perfused guinea pig placenta in late gestation. *Toxicol. Appl. Pharmacol.* 41: 659-665.
5. (3) Kelman, B.J. 1977. Movements of inorganic mercury across the perfused guinea pig placenta in late gestation. *Fed. Proc.* 36: 355.
6. (3) Kelman, B.J. 1977. Transport of cadmium across the guinea pig placenta in late gestation. In: University of Missouri 11th Annual Conference on Trace Substances in Environmental Health, Columbia, MO.
7. (1) Kelman, B.J., D.M. Bush, L.B. Sasser, and G.E. Jarboe. 1977. Respiration of mercury from rats and release of mercury from stored rat tissues treated with methylmercury chloride. *Health Phys.* 33: 139-141.
8. (1) Kelman, B.J. and L.B. Sasser. 1977. Methylmercury movements across the perfused guinea pig placenta in late gestation. *Toxicol. Appl. Pharmacol.* 39: 119-127.
9. (1) Kelman, B.J. and B.K. Walter. 1977. Passage of cadmium across the perfused guinea pig placenta. *Proc. Soc. Exp. Biol. Med.* 156: 68-71.
10. (3) Walter, B.K. and B.J. Kelman. 1977. Fetal uptake of methylmercury in swine. *Fed. Proc.* 36: 355.
11. (3) Kelman, B.J., J.A. Ozga, B.K. Walter, and L.B. Sasser. 1978. Cadmium-binding protein in the livers of pregnant and fetal rats. *Teratology* 17: 23A.
12. (3) Kelman, B.J. and A.R. Twardock. 1978. Calcium, sodium, and potassium movements across the placenta in the presence of inhibitors. *Fed. Proc.* 37: 615.





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### Publications (Cont.)

13. (2) Kelman, B.J. and B.K. Walter. 1978. Use of perfusion in the study of placental transport of mercury and cadmium, pp. 555-567. In: *Developmental Toxicology of Energy-Related Pollutants*, D.D. Mahlum, M.R. Sikov, P.L. Hackett, and F.D. Andrew (eds.), 17th Hanford Life Sciences Symposium, October 17-19, 1977, Richland, WA. CONF-771017, NTIS, Springfield, VA.
14. (1) Kelman, B.J., B.K. Walter, G.E. Jarboe, and L.B. Sasser. 1978. Effect of dietary cadmium on calcium metabolism in the rat during late gestation. *Proc. Soc. Exp. Biol. Med.* 158: 614-617.
15. (1) Sasser, L.B., G.E. Jarboe, B. Walter, and B.J. Kelman. 1978. Absorption of mercury from ligated segments of the rat gastrointestinal tract. *Proc. Soc. Exp. Biol. Med.* 157: 57-60.
16. (3) Walter, B.K. and B.J. Kelman. 1978. Calcium-cadmium interactions in the rat during late gestation. *Fed. Proc.* 37: 614.
17. (3) Kelman, B.J. 1979. Cadmium movements between mother and fetus. In: *Regional Meeting of the Northwest Section for the Society for Experimental Biology and Medicine*, Richland, WA.
18. (2) Kelman, B.J. 1979. Effect of toxic agents on movements of materials across the placenta. *Fed. Proc.* 38: 2246-2250.
19. (1) Kelman, B.J., J.A. Ozga, B.K. Walter, and L.B. Sasser. 1979. Cadmium-binding in the pregnant and fetal rat. *Toxicol. Lett.* 4: 135-141.
20. (3) Kelman, B.J. and B.K. Walter. 1979. Fetal to maternal cadmium movements across the perfused hemochorial placenta of the guinea pig. *Toxicol. Appl. Pharmacol.* 48: A146.
21. (3) Sasser, L.B., P.T. Bronsky, B.K. Walter, and B.J. Kelman. 1979. The subcellular distribution and protein-binding of orally administered  $^{109}\text{Cd}$  in the newborn rat intestine. In: *University of Missouri 13th Annual Conference on Trace Substances in Environmental Health*, Columbia, MO.
22. (1) Schneider, M.D., and B.J. Kelman. 1979. A proposed mechanism(s) of transitory ischemic injury to myocardium. *Am. J. Vet. Res.* 40: 170-182.
23. (3) Kelman, B.J., M.R. Sikov, and P.L. Hackett. 1980. Effects of monomeric  $^{239}\text{Pu}$  on the pregnant and fetal rabbit. *Teratology* 21: 48A.
24. (1) Kelman, B.J., S.E. Steinmetz, B.K. Walter, and L.B. Sasser. 1980. Absorption of methylmercury by the fetal guinea pig during mid to late gestation. *Teratology* 21: 162-165.
25. (3) Kelman, B.J., S.E. Steinmetz, B.K. Walter, and L.B. Sasser. 1980. Distribution of tissue-bound methylmercury in the fetal guinea pig after maternal methylmercury administration, p. 20. In: *Abstracts of Papers, 19th Annual Meeting of the Society of Toxicology*, March 9-13, 1980, Washington, DC.
26. (1) Kelman, B.J. and B.K. Walter. 1980. Fetal to maternal cadmium movements across the perfused hemochorial placenta of the guinea pig. *Toxicol. Appl. Pharmacol.* 52: 400-406.
27. (1) Kelman, B.J. and B.K. Walter. 1980. Transplacental movements of inorganic lead from mother to fetus. *Proc. Soc. Exp. Biol. Med.* 163: 278-282.
28. (3) Sasser, L.B., A.A. Levine, B.J. Kelman, and R.K. Miller. 1980. The effect of fetal cadmium injection on metallothionein in fetal and maternal rat liver, p. 23. In: *Abstracts of Papers, 19th Annual Meeting of the Society of Toxicology*, March 9-13, 1980, Washington, DC.





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### Publications (Cont.)

29. (1) Charles-Shannon, V.L., L.B. Sasser, D.K. Burbank, and B.J. Kelman. 1981. The influence of zinc on the ontogeny of hepatic metallothionein in the fetal rat. *Proc. Soc. Exp. Biol. Med.* 168: 56-61.
30. (3) Kelman, B.J. 1981. Alterations of the maternal blood supply to the fetus by toxic materials. *The Toxicologist* 2: 42.
31. (3) Kelman, B.J. and M.R. Sikov. 1981. Effects of intravenous injection of monomeric  $^{239}\text{Pu}$  in pregnant rabbits, pp. 72-73. In: Abstracts of Papers, 29th Annual Meeting of the Radiation Research Society, May 31 - June 4, 1981, Minneapolis, MN.
32. (3) Kelman, B.J. and M.R. Sikov. 1981. Fetal exposure to plutonium. *The Toxicologist* 1: 146.
33. (3) Kelman, B.J. and M.R. Sikov. 1981. Movements of plutonium across the perfused guinea pig placenta. *Radiat. Res.* 87: 386.
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