

VITA
PHILLIP L. WILLIAMS

1.0 HISTORY

Present Rank: Professor

Appointed: 8/16/93

Administrative Title: Dean
College of Public Health

Degrees:

<u>Degree</u>	<u>Institution</u>	<u>Major Field</u>	<u>Year</u>
Ph.D.	Georgia Institute of Technology	Environmental Biology	1988
B.S.	Georgia State University	Biological Sciences/Chemistry	1975

◆ **ACADEMIC POSITIONS**

<u>Title</u>	<u>Employer</u>	<u>Year</u>
Research Technologist II	Engineering Experiment Station Georgia Institute of Technology	12/78 - 01/80
Research Scientist	Environmental Health and Safety Division Georgia Tech Research Institute Georgia Institute of Technology	01/80 - 06/85
Senior Research Scientist	Environmental Health and Safety Division Georgia Tech Research Institute Georgia Institute of Technology	07/85 - 09/88
Adjunct Asst. Professor	Emory University, Rollins School of Public Health, Department of Environmental and Occupational Health	09/91 - 06/93
Adjunct Assoc. Professor	Emory University, Rollins School of Public Health, Department of Environmental and Occupational Health	07/93 - 06/01
Associate Professor	Department of Environmental Health Science The University of Georgia	08/93 - 06/01
Adjunct Assoc. Professor	Dept. of Pharmacology & Toxicology College of Pharmacy, The University of Georgia	05/94 - 06/97

Graduate Coordinator	Department of Environmental Health Science The University of Georgia	05/96 – 06/05
Adjunct Assoc. Professor	Department of Pharmaceutical and Biomedical Sciences, College of Pharmacy, The University of Georgia	07/97 - 06/01
Adjunct Professor	Emory University, Rollins School of Public Health, Department of Environmental and Occupational Health	07/01- Present
Adjunct Professor	Department of Pharmaceutical and Biomedical Sciences, College of Pharmacy, The University of Georgia	07/01 – 06/04
Professor	Department of Environmental Health Science The University of Georgia	07/01 - Present
Georgia Power Professor of Environmental Health	Department of Environmental Health Science The University of Georgia	09/01 - Present
Chair, Public Health Division	Biomedical and Health Sciences Institute The University of Georgia	09/01 – 12/06
Interim Dean	College of Public Health The University of Georgia	01/05 – 12/06
Dean	College of Public Health The University of Georgia	01/07 – Present

◆ **OTHER PROFESSIONAL EMPLOYMENT**

<u>Title</u>	<u>Employer</u>	<u>Year</u>
Industrial Hygienist	U.S. Department of Labor, Occupational Safety and Health Administration	05/75 - 12/78
Project Director	Environment, Health and Safety Group A. T. Kearney Management Consultants	09/88 - 08/91
Vice President	Environment, Health and Safety Group A. T. Kearney Management Consultants	09/91 - 08/93

◆ HONORS AND PROFESSIONAL MEMBERSHIPS

Honors

Quality Step Increase for Superior Performance, U. S. Department of Labor, Occupational Safety and Health Administration, July 1978 (included an annual salary increase).

Certified Industrial Hygienist, Comprehensive Practice (#2174), American Board of Industrial Hygiene, December 1981.

Diplomate of the American Academy of Industrial Hygiene, December 1981 (as a result of passing the written CIH examination).

Outstanding Performance in Research Award, Georgia Tech Research Institute (GTRI), Georgia Institute of Technology, December 1983. (Dr. Williams was the first individual at Georgia Tech to be given this award and it is now given annually to one researcher chosen from within GTRI and includes a cash award).

NIH/NIOSH Doctoral Fellowship, School of Biology, Georgia Institute of Technology, Atlanta, GA, 1985 - 1987.

Outstanding Research Author Award, Environmental Health and Safety Division, Georgia Tech Research Institute, Georgia Institute of Technology, 1986.

Elected an AIHA Fellow of the American Industrial Hygiene Association (limited to 5% of the Association's membership), April 1998.

Georgia Power Professor of Environmental Health, Department of Environmental Health Science, The University of Georgia, August 2001 (endowed professorship).

Memberships

Society of Toxicology, Full Member

Society of Environmental Toxicology and Chemistry, Full Member

American Industrial Hygiene Association, Fellow Member

American Academy of Industrial Hygiene, Diplomate

Georgia Section of American Industrial Hygiene Association

Southeastern Section of the Society of Toxicology

2.0 RESIDENT INSTRUCTION

◆ Instruction

Industrial Hygiene (EHSC 4100/4100L, 6100/6100L)

(3 semester hours, formerly EHS 410/410L, 610/610L, 5 quarter hours)

100% of the class, taught once per year (1993-2005).

Environmental Air Quality (EHSC 4080/6080)

(3 semester hours, formerly EHS 408/608, 3 quarter hours)

100% of the class, taught every other year (1994-2001).

Special Problems in Environmental Health (EHSC 3700)

(1-3 semester hours, formerly EHS 370, 1-5 quarter hours)

Taught as requested.

Chemical Toxicology (EHSC 8930)

(3 semester hours, formerly EHS 892, 5 quarter hours)
20% of class taught once per year (1994-2005).

Special Problems in Environmental Health (EHSC 8800)

(1-3 semester hour)
Taught as requested.

◆ **Teaching at Other Universities**

Rollins School of Public Health, Emory University. In addition to his UGA teaching responsibilities, Dr. Williams presently has 100% responsibility for teaching 1 graduate course (EOH 522, Issues in Toxicology) bi-annually within the Department of Environmental and Occupational Health at Emory University’s Rollins School of Public Health. He has shared the responsibility of teaching 2 other graduate courses (EOH 520, Environmental and Occupational Toxicology; and EOH 540, Environmental and Occupational Hazards I: Recognition, Assessment, and Control).

◆ **Teaching Grants**

- \$102,000 U.S. Environmental Protection Agency, “STAR Fellowship” for Windy Boyd (Ph.D. Student), July 2000 through June 2003.
- \$10,000 Georgia Power Company Gift in support of teaching program, February 2001.
- \$100,000 Georgia Power Company Gift to establish an endowed fund to support an undergraduate scholarships for disadvantaged students, February 2001.
- \$2500 International Academic Program Development Award for Teaching in Budapest, Hungary, The University of Georgia, March 2001.
- \$300,000 Georgia Power Company Gift to establish an endowed fund to support a graduate student assistantship for a student from an under-represented population, February 2004.
- \$200,000 Georgia Power Company Gift to establish an endowed fund to support a departmental seminar series in environmental health science.

◆ **Undergraduate Advising**

From the first week of his employment at UGA, Dr. Williams has served as the Academic Advisor for EHS undergraduate students. Listed below is a summary of Dr. Williams’ undergraduate advisement activities since August 1993.

Year Advised
1993

Average Number of Undergraduate Students
48 students (Fall Quarter Only)

1994	50 students per quarter
1995	48 students per quarter
1996	43 students per quarter
1997	38 students per quarter
1998	30 students per quarter/semester
1999	30 students per semester
2000	20 students per semester
2001	20 students per semester
2004	15 students per semester

◆ **Extracurricular Involvement with Undergraduate Students**

EHS Club Advisor, 1994-1996. In this capacity, Dr. Williams assisted the club with locating speakers and organizing their monthly meetings, providing advice on the operation of a variety of club functions, and organization and supervision of various field trips.

◆ **Graduate Advising**

Listed below are the graduate students (and their degree status) that Dr. Williams has supported as Major Professor since joining UGA in August of 1993:

Graduate Student	Time Period	Degree Awarded
Steve Donkin	1994-1995	Post Doctoral Position
Nitin Khanna	1994-1995	Not Completed (Ph.D., Toxicology)
Kim Metcalf	1994-1996	M.S., Environmental Health
Charles Cressman	1994-1996	M.S., Environmental Health
Daniel Hitchcock	1994-1996	M.S., Environmental Health
Robert Greene	1994-1997	M.S., Environmental Health
Alex Lehocky	1994-1997	M.S., Environmental Health
David Heath	1995-1997	Not Completed (M.S., Environmental Health)
Lisa Whittaker	1996-1998	M.S., Environmental Health
Todd Marse	1996-1998	Not Completed (M.S., Toxicology)
Chris Peredney	1996-1998	M.S., Toxicology
Wilson Everett	1996 - 2001	M.S., Environmental Health
Ritu Dhawan	1997-1999	M.S., Environmental Health
Windy Boyd	1998-2002	Ph.D., Toxicology

Luther Tow	1998 - 2002	Not Completed (M.S., Environmental Health)
Virginia Stringer	2000	Not Completed (M.S., Toxicology)
Mona Bird	2000-2002	M.S., Environmental Health
Russell Cole	2001 - 2003	M.S. Toxicology
Heather Owens Woodgeard	2002 - 2004	M.S., Environmental Health
Amber Graves	2002 – 2004	M.S., Toxicology
Daunte' Gibbs	2002 – 2004	M.S., Environmental Health
Paul Melstrom	2003 – Present	Current Student - Ph.D. Toxicology
Ma Hongbo	2005 - Present	Current Student - Ph.D. Toxicology

◆ **Graduate Theses Directed by Dr. Williams**

1. Metcalf, K. R. "Development of an Environmental Performance Indicator System". Thesis for Master of Science in Environmental Health. Completed spring 1996.
2. Cressman III, C. P. "Reference Toxicants for the *Caenorhabditis elegans* Acute Aquatic Toxicity Bioassay". Thesis for Master of Science in Environmental Health. Completed summer 1996.
3. Hitchcock, D. R. "Using the Nematode *Caenorhabditis elegans* to Determine Toxicity Trends in Municipal and Industrial Wastewaters". Thesis for Master of Science in Environmental Health. Completed summer 1996.
4. Lehocky, A. H. "Comparison of Direct-Reading Aerosol Monitors to Traditional Gravimetric Samplers". Thesis for Master of Science in Environmental Health. Completed winter 1997.
5. Greene III, R. E. "Risk Assessment of Ambient Aldehyde Air Concentrations in Savannah, Georgia Area". Thesis for Master of Science in Environmental Health. Completed spring 1997.
6. Whittaker, L. "Employee Exposure to Diesel Exhaust Emissions in the Electric Utility Industry". Thesis for Master of Science in Environmental Health. Completed winter 1998.
7. Peredney, C. L. "Evaluation of the *Caenorhabditis elegans* Soil Bioassay in Reference to the Heavy Metal Contamination of Soil". Thesis for Master of Science in Toxicology. Completed spring 1999.
8. Dhawan, R. "Evaluation of Behavioral Responses in the Nematode *Caenorhabditis elegans*

- Using Computer Tracking”. Thesis for Master of Science in Environmental Health. Completed summer 1999.
9. Everett, W. “The Acute Toxicity of Selected Metal Mixtures to the Nematode *Caenorhabditis elegans*”. Thesis for Master of Science in Environmental Health. Completed fall 2001.
 10. Bird, M. “Occupational Exposures During Routine Activities in Coal-Fueled Power Plants”. Thesis for Master of Science in Environmental Health. Completed Spring 2002.
 11. Boyd, W. “*Caenorhabditis elegans* As a Model for Assessing Behavioral Effects and Soil Bioavailability of Environmental Contaminants”. Ph.D. in Environmental Toxicology. Completed Fall 2002.
 12. Cole, R. “The Nematode *Caenorhabditis elegans* as a Model of Organophosphate Induced Mammalian Neurotoxicity”. Thesis for Master of Science in Toxicology. Completed Summer 2003.
 13. Graves, A. “Exploring the Use of Transgenic *Caenorhabditis elegans* as a Measure of Soil Toxicity”. Thesis for Master of Science in Toxicology. Completed Spring 2004.
 14. Gibbs, D. “Potential Role of Diplosaptor, A Free-living Nematode, As a Vector of Pathogenic Bacteria to Pre-harvest Fruits and Vegetables in the Soil”. Thesis for Master of Science in Environmental Health. Completed Spring 2004.
 15. Woodgeard, H. “Extrapolating Occupational Exposure Values from U.S. EPA IRIS Data”. Thesis for Master of Science in Environmental Health. Completed Spring 2004.

◆ **Graduate Advisement as Committee Member**

Student	Degree	Major	Year Begun	Year Degree Awarded
Khanna	M.S.	Food Science	1993	1995
Schoeffner	Ph.D.	Toxicology	1993	1998
Wentworth	Ph.D.	Toxicology	1994	1998
Campbell	M.S.	Environmental Health	1995	1997
Tatara	Ph.D.	Ecology	1995	1999
Kind	Ph.D.	Toxicology	1995	2000
Holloman	Ph.D.	Toxicology	1995	2000
Shaw-Allen	Ph.D.	Ecology	1995	2002
Crecchine	Ph.D.	Biology	1995	1997
Xiang	Ph.D.	(Georgia Tech) Textile Science	1996	Did not complete (1998)
Vatthiyam	M.P.H.	EHS (Emory)	1997	1998
Logan	M.S.	Environmental Health	1997	1999
Collins	M.S.	Environmental Health	1997	1999
Majors	M.S.	Textile Science	1998	2000

Moore	M.L.A.	Landscape Arch.	1999	1999
Johnson	Ph.D.	Toxicology	1999	2002
Overmyer	Ph.D.	Toxicology	1999	2002
Lumpkin	Ph.D.	Toxicology	1999	2002
Connors	Ph.D.	Toxicology	1999	2004
Pang	M.S.	Environmental Health	1999	2001
Yanosky	M.S.	Environmental Health	1999	2001
Unrine	Ph.D.	Toxicology	1999	2004
Cofield	Ph.D.	Civil Engr (Purdue)	2002	2005
Carlton	M.S.	Environmental Health	2002	2004
Kenney	Ph.D.	Food Science	2001	2004
Brandt	M.S.	Toxicology	2002	2004
Cassidy	M.S.	Environmental Health	2003	2005

3.0 SCHOLARLY ACTIVITIES

◆ Publications

(The superscript G, P and T indicates that the author was a graduate student (G), post-doctoral student (P) or technician (T) working directly under Dr. Williams' supervision.

◆ Books

1. Williams, P and Burson, J. (Eds.) 1985. Industrial Toxicology: Safety and Health Applications in the Workplace. New York: Van Nostrand Reinhold, 502 pages.
2. Williams, P.; James, R; and Roberts, S. (Eds.) 2000. Principles of Toxicology: Environmental and Industrial Applications, Second Edition. New York: John Wiley & Sons, 603 pages.

◆ Chapters in Books

1. Williams, P. 1985. Bridging Theory and Practice in Industrial Toxicology. In Williams,

- P. and Burson, J. (Eds.). Industrial Toxicology: Safety and Health Applications in the Workplace. New York: Van Nostrand Reinhold, pp. 1-3.
2. Williams, P. 1985. Methods for Evaluating Chemical Exposures. In Williams, P. and Burson, J. (Eds.). Industrial Toxicology: Safety and Health Applications in the Workplace. New York: Van Nostrand Reinhold, pp. 399-412.
 3. Williams, P. 1985. Pentachlorophenol and Sodium Pentachlorophenate. In Hygienic Guide Series. Akron, Ohio: American Industrial Hygiene Association, 6 pages.
 4. Williams, P. and Dusenbery, D. 1987. Screening Test for Neurotoxins Using *Caenorhabditis elegans*. In Shahar, A. and Goldberg, A. (Eds.): Model Systems in Neurotoxicology: Alternative Approaches to Animal Testing. New York: Alan R. Liss, Inc., pp. 163-170.
 5. ^GCressman III, C. and Williams, P. 1997. Reference Toxicants for Toxicity Testing Using *Caenorhabditis elegans* in Aquatic Media. In F. Dwyer; T. Doane; and M. Hinman (Eds.): Environmental Toxicology and Risk Assessment: Modeling and Risk Assessment, 6th Volume, ASTM STP 1317, American Society for Testing and Materials, pp. 518-532.
 6. ^TFreeman, M.; ^GMarse, T.; and Williams, P. 1998. Establishment of Quality Assurance Procedures for Aquatic Toxicity Testing with the Nematode *Caenorhabditis elegans*. In E. Little, A. DeLonay, and B. Greenberg (Eds.): Environmental Toxicology and Risk Assessment, 7th Volume, ASTM STP 1333, American Society for Testing and Materials, pp. 45-59.
 7. ^TFreeman, M.; ^GPeredney, C.; and Williams, P. 1999. Standardization of a Soil Bioassay Using the Nematode *Caenorhabditis elegans*. Henshel, D.; Black, M.; and Harrass, M. (Eds.): Environmental Toxicology and Risk Assessment, 8th Volume, ASTM STP 1364, American Society for Testing and Materials, pp. 305-318.
 8. Williams, P.; ^GBoyd, W.; and ^GPeredney, C. 1999. Innovative Method for Site Assessment Using Computer Tracking to Evaluate Behavioral Changes in the Soil Nematode *Caenorhabditis elegans*. Symposium Proceedings for Fourth International Symposium and Exhibition on Environmental Contamination Central and Eastern Europe, Warsaw, Poland, Florida State University CD ROM, Manuscript #45, 7 pages.
 9. ^GPeredney, C. and Williams, P. 2000. Comparison of the Toxicological Effects of Nitrate versus Chloride Metallic Salts on *Caenorhabditis elegans* in Soil. Price, F.; Brix, V.; and Lane, K. (Ed.): Environmental Toxicology and Risk Assessment: Recent Achievements in Environmental Fate and Transport, 9th Volume, ASTM STP 1381, American Society for Testing and Materials, pp. 256-268.
 10. ^GBoyd, W.; ^PAnderson, G; Dusenbery, D. and Williams, P. 2000. Computer Tracking Method for Assessing Behavioral Changes in the Nematode *Caenorhabditis elegans*. Price, F.; Brix, V.; and Lane, K. (Ed.): Environmental Toxicology and Risk Assessment: Recent Achievements in Environmental Fate and Transport, 9th Volume, ASTM STP 1381, American Society for Testing and Materials, pp. 225-238.
 11. James, R.; Roberts, S.; and Williams, P. 2000. General Principles of Toxicology. In: Williams, P; James, R.; and Roberts, S. (Eds.) Principles of Toxicology: Environmental and Industrial Applications, Second Edition. New York: John Wiley & Sons, pp. 3-34.
 12. Middendorf, P. and Williams, P. 2000. Nephrotoxicity: Toxic Responses in the Kidney. In: Williams, P; James, R.; and Roberts, S. (Eds.). Principles of Toxicology: Environmental and Industrial Applications, Second Edition. New York: John Wiley & Sons, pp. 129-143.
 13. ^PDonkin, S. and Williams, P. 2000. Neurotoxicity: Toxic Responses in the Nervous System.

- In: Williams, P; James, R.; and Roberts, S. (Eds.). Principles of Toxicology: Environmental and Industrial Applications, Second Edition. New York: John Wiley & Sons, pp. 145-155.
14. ^GBoyd, W.; ^GStringer, V.; and Williams, P. 2001. Metal LC50 Values of Soil Nematode Compared to Earthworm Data. Greenbery, B.; Hull, R.; Roberts, M.; and Gensemer, R. (Eds.): Environmental Toxicology and Risk Assessment: Science, Policy, and Standardization - Implications for Environmental Decisions, 10th Volume, ASTM STP 1403, American Society for Testing and Materials, 223-235.
 15. ^GBoyd, W.; Brewer, S. and Williams, P. 2002. Altered Behaviour of Invertebrates Living in Polluted Environments. In: Dell’Omo, G. (Ed.). Behavioural Ecotoxicology. London: John Wiley & Sons Ltd., pp. 293-336.
 16. Denslow, N.; Colbourne, J.; Dix, D.; Freedman, J.; Helbing, C.; Kennedy, S.; and Williams, P. 2007. Selection of Surrogate Species for Comparative Toxicogenomics. In: Emerging and Molecular Approaches: Cross-Species Extrapolations. Society of Environmental Toxicology and Chemistry (SETAC), pp. 33-75.

◆ **Monographs**

1. “Conducting Laboratory Soil Toxicity Tests with the Nematode *Caenorhabditis elegans*”. 2001. American Society of Testing and Materials (ASTM) E1525-01 Standard Guide. ASTM.

◆ **Refereed Articles (includes accepted and in press)**

1. Williams, P.; Spain, W.; and Rubenstein, M. 1981. Suspected Arsine Poisoning During the Restoration of a Large Cyclorama Painting. *American Industrial Hygiene Association Journal* 42(12):911-913.
2. Williams, P. and Spain, W. 1982. Industrial Hygiene and the Arts: Restoring The Battle of Atlanta. *Occupational Health and Safety* 51(4):34-38.
3. Williams, P. 1982. Pentachlorophenol, An Assessment of the Occupational Hazard. *American Industrial Hygiene Association Journal* 43(11):799-810.
4. Williams, P. 1983. Commercial PCP: Toxic Impurities. *Occupational Health and Safety* 52(7):14-16.
5. Williams, P.; Luster, M.; and Middendorf, P. 1983. Area Sampling Methods: Selecting the Proper Sites. *Occupational Health and Safety* 52(5):21 -24.
6. Middendorf, P.; Luster, M.; Williams, P.; and Smith, K. 1983. Noise Exposure: Action Level as a Predictor of the Permissible Exposure Level. *American Industrial Hygiene Association Journal* 44(12):890-893.
7. Smith, K.; Williams, P.; Middendorf, P., and Zakraysek. N. 1984. Kidney Dialysis: Ambient Formaldehyde Levels. *American Industrial Hygiene Association Journal* 45(1) :48-50.
8. Williams, P. 1988. Pentachlorophenol. *Dangerous Properties of Industrial Materials Report* 8(1):2-8.
9. Williams, P. and Dusenbery, D. 1988. Using the Nematode, *Caenorhabditis elegans*, to Predict Mammalian Acute Lethality to Metallic Salts. *Toxicology and Industrial Health* 4(4):469-478.
10. Williams, P. and Dusenbery, D. 1990. Aquatic Toxicity Testing Using the Nematode,

- Caenorhabditis elegans*. *Environmental Toxicology and Chemistry*. 9(10):1285-1290.
11. Williams, P. and Dusenbery, D. 1990. A Promising Indicator of Neurobehavioral Toxicity Using the Nematode *Caenorhabditis elegans* and Computer Tracking. *Toxicology and Industrial Health* 6(3/4):425-440.
 12. James, R.; Roberts, S.; and Williams, P. 1994. Evaluation of the Adequacy of the Threshold Limit Value for Cyclonite. *Applied Occupational and Environmental Hygiene* 9(7):485-492.
 13. Williams, C.; Jones, H.; Freeman, R.; Wernke, M.; Williams, P.; Roberts, S.; and James, R. 1994. The EPC Approach to Estimating Safety from Exposure to Environmental Chemicals. *Regulatory Toxicology and Pharmacology* 20 (3): 259-280.
 14. Kolp, P.; Williams, P.; and Burtan, R. 1995. Assessment of the Accuracy of Material Safety Data Sheets (MSDSs). *American Industrial Hygiene Association Journal* 56(2):178-183.
 15. ^PDonkin, S.; Eiteman, M. and Williams, P. 1995. Toxicity of Glucosinolates and Their Enzymatic Decomposition Products to *Caenorhabditis elegans*. *Journal of Nematology* 27(3):258-262.
 16. ^PDonkin, S. and Williams, P. 1995. Influence of Developmental Stage, Salts, and Food Presence on Various Endpoints Measured in the *Caenorhabditis elegans* Aquatic Toxicity Test. *Environmental Toxicology and Chemistry* 14(12):2139-2147.
 17. ^GMetcalf, K.; Williams, P.; Minter, J.; and Hobson, C. 1995. An Assessment of Corporate Environmental Programs and Their Performance Measurement Systems. *Journal of Environmental Health* 58(2):9-17.
 18. Williams, P.; Parker, M. and Middendorf, P. 1995. Respirable Free Silica: Comparison of Occupational Exposure Limits. *American Industrial Hygiene Association Journal* 56(12):1229-1231.
 19. ^GMetcalf, K.; Williams, P.; Minter, J.; and Hobson, C. 1996. Environmental Performance Indicators for Enhancing Environmental Management. *Total Quality Environmental Management* 5(4):7-11.
 20. ^GGreene, R. and Williams, P. 1996. Indoor Air Quality Investigation Protocols. *Journal of Environmental Health* 59(3):6-13.
 21. ^GMetcalf, K.; Woodall, W.; Hobson, C.; and Williams, P. 1996. Environmental Performance Measurement: A Case Study. *Environmental Quality Management* 6(1):27-37.
 22. ^GLehocky, A. and Williams, P. 1996. Comparison of Gravimetric Samplers to Direct Reading Real-Time Aerosol Monitors for Measuring Respirable Coal Dust. *American Industrial Hygiene Association Journal* 57(11):1013-1018.
 23. ^GKhanna, N.; ^GCressman III, C.; ^GTatara, C.; and Williams, P. 1997. Tolerance of the Nematode *Caenorhabditis elegans* to pH, Salinity, and Hardness in Aquatic Medium. *Archives of Environmental Contamination and Toxicology* 32(1):110-114.
 24. ^GTatara, C.; Newman, M.; McCloskey, J.; and Williams, P. 1997. Predicting Relative Metal Toxicity With Ion Characteristics: *Caenorhabditis elegans* LC50. *Aquatic Toxicology* 39(3/4):279-290.
 25. ^GGreene, R.; Casey, J., and Williams, P. 1997. A Proactive Approach for Managing Indoor Air Quality. *Journal of Environmental Health* 60(4):15-21.
 26. ^GHitchcock, D.; Black, M.; and Williams, P. 1997. Investigation into Using the Nematode *Caenorhabditis elegans* for Municipal and Industrial Wastewater Toxicity Testing. *Archives of Environmental Contamination and Toxicology* 33:252-260.
 27. ^GHitchcock, D.; Law, S.E.; Wu, J.; and Williams, P. 1998. Determining Toxicity Trends in

- the Ozonation of Dye Wastewaters Using the Nematode *Caenorhabditis elegans*. *Archives of Environmental Contamination and Toxicology* 34(3):259-264.
28. ^GTatara, C.; Newman, M.; McCloskey, J.; and Williams, P. 1998. Use of Ion Characteristics to Predict Relative Toxicity of Mono-, Di- and Trivalent Metal Ions: *Caenorhabditis elegans* LC50. *Aquatic Toxicology* 42:255-269.
 29. Middendorf, P.; ^GLehocky, A.; and Williams, P. 1999. Evaluation and Field Calibration of the Miniram PDM-3 Aerosol Monitor for Measuring Respirable and Total Coal Dust. *American Industrial Hygiene Association Journal* 60(4):502-511.
 30. ^GWhittaker, L.S.; MacIntosh, D.; and Williams, P. 1999. Employee Exposure to Diesel Exhaust in the Electric Utility Industry. *American Industrial Hygiene Association Journal* 60(5):635-640.
 31. ^GDhawan, R.; Dusenbery, D.; and Williams, P. 1999. Comparison of Lethality, Reproduction and Behavior as Toxicological Endpoints in the Nematode *Caenorhabditis elegans*. *Journal of Toxicology and Environmental Health, Part A* 58:451-462.
 32. Campbell, J.; Smith, M.A.; Eiteman, M.; Williams, P.; Boeniger, M. 2000. Wipe Recovery of Selected Pesticides Using an *In Vitro* Porcine Skin Model. *American Industrial Hygiene Association Journal* 61(1):82-88.
 33. ^GPeredney, C. and Williams, P. 2000. Utility of *Caenorhabditis elegans* for Assessing Heavy Metal Contamination in Artificial Soil. *Archives of Environmental Contamination and Toxicology* 39(1):113-118.
 34. MacIntosh, D.; Zimmer-Dauphinee, S.; Manning, R.; and Williams, P. 2000. Aldehyde Concentrations in Ambient Air of Coastal Georgia, USA. *Environmental Monitoring and Assessment* 63(3):409-429.
 35. ^GDhawan, R.; Dusenbery, D.; and Williams, P. 2000. A Comparison of Metal-induced Lethality and Behavioral Responses in the Nematode *Caenorhabditis elegans*. *Environmental Toxicology and Chemistry*, 19(12):3061-3067.
 36. Williams, P.; ^PAnderson, G.; Johnstone, J.; Nunn, A.; Tweedle, M.; and Wedeking, P. 2000. *Caenorhabditis elegans* As An Alternative Animal Species. *Journal of Toxicology and Environmental Health, Part A*, 61(12):641-647.
 37. Frumkin, H.; Letz, R.; Williams, P.; Gerr, F.; Pierce, M.; Sanders, A.; Elon, L.; Manning, C.; Woods, J.; Hertzberg, V.; Mueller, P.; and Taylor, B. 2001. Health Effects of Long-term Mercury Exposure Among Workers in a Chloralkali Plant. *American Journal of Industrial Medicine*, 39(1):1-18.
 38. Williams, P.; Frumkin, H.; Pierce, M.; Elon, L.; Sanders, A.; and Manning, C. 2001. Reconstruction of Occupational Mercury Exposures at a Chloralkali Plant. *Occupational and Environmental Medicine*, 58(2):81-86.
 39. Frumkin, H.; Manning, C.; Williams, P.; Mueller, P.; Letz, R.; Gerr, F.; Sanders, A.; Taylor, B.; Pierce, M.; Elon, L.; Hertzberg, V. 2001. Diagnostic Chelation Challenge with DMSA: A Biomarker of Long-term Mercury Exposure? *Environmental Health Perspectives*, 109:167-171.
 40. Collins, M.; Williams, P.; and MacIntosh, D. 2001. Ambient Air Quality at the Site of a Former Manufactured Gas Plant. *Environmental Monitoring and Assessment*, 68(2):137-152.
 41. ^PAnderson, G.; ^GBoyd, W.; and Williams, P. 2001. Assessment of Sublethal Endpoints for Toxicity Testing with the Nematode *Caenorhabditis elegans*. *Environmental Toxicology and Chemistry*, 20(4):833-838.

42. Middendorf, P.; MacIntosh, D.; ^GTow, L.; and Williams, P. 2001. Performance of Electronic Flow Rate Meters Used for Calibration of Air Sampling Pumps. *American Industrial Hygiene Association Journal*, 62(4):472-476.
43. Dallas, C. and Williams, P. 2001. Barium: Rationale for a New Oral Reference Dose (RfD). *Journal of Toxicology and Environmental Health, Part B*, 4:101-136.
44. Black, M. and Williams, P. 2001. Preliminary Assessment of Metal Toxicity in the Middle Tizsa River (Hungary) Flood Plain. *Journal of Soils and Sediments*, 1(4):203-206.
45. Yanosky, J.; Williams, P.; and MacIntosh, D. 2002. A Comparison of Two Direct-Reading Aerosol Monitors with the Federal Reference Method for PM_{2.5}. *Atmospheric Environment*, 36(1):107-113.
46. ^GBoyd, W.; and Williams, P. 2003. The Availability of Metals to the Nematode *Caenorhabditis elegans*: LC50 Values Based on Total Concentration in Soil and Extracted Fractions. *Environmental Toxicology and Chemistry*, 22(5):1100-1106.
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50. Caldwell, K.; ^PAnderson, G.; Williams, P.; and Beuchat, L. 2003. Attraction of a Free-Living Nematode, *Caenorhabditis elegans*, to Foodborne Pathogenic Bacteria, and Its Potential as a Vector of *Salmonella* Poona for Preharvest Contamination of Cantaloupe. *Journal of Food Protection*. 66(11):1964-1971.
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52. ^PAnderson, G.; ^GCole, R.; and Williams, P. 2004. Assessing Behavioral Toxicity Using *Caenorhabditis elegans*. *Environmental Toxicology and Chemistry*. 23(5):1235-1240.
53. ^GCole, R.; ^PAnderson, G.; and Williams, P. 2004. The Nematode *Caenorhabditis elegans* as a Model for Organophosphate Induced Mammalian Neurotoxicity. *Toxicology and Applied Pharmacology*. 194:248-256.
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55. Kenney, S.J., ^PAnderson, G.; Williams, P., Millner, P. and Beuchat, L. 2004. Effectiveness of Cleaners and Sanitizers in Killing *Salmonella* Newport in the Gut of a Free-living Nematode, *Caenorhabditis elegans*. *Journal of Food Protection*. 67:2151-2157.
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57. Kenney, S.J., ^PAnderson, G.; Williams, P., Millner, P. and Beuchat, L. 2005. Persistence of *Escherichia coli* O157:H7, *Salmonella* Newport, and *Salmonella* Poona in the Gut of a

- Free-living Nematode, *Caenorhabditis elegans*, and Transmission to Progeny and Uninfected Nematodes. *International Journal of Food Microbiology*. 101(2):227-236.
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 59. Kenney, S.J., ^PAnderson, G.; Williams, P., Millner, P. and Beuchat, L. 2006. Migration of *Caenorhabditis elegans* to Manure and Manure Compost and Potential for Transport of *Salmonella* Newport to Fruits and Vegetables. *International Journal of Food Microbiology*. 106(1):61-68.
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 62. Banks, K., Schwab, A., Cofield, N., Alleman, J., Switzenbaum, M., Shalabi, J., and Williams, P. 2006. Biosolids Amended Soils: Part I. Effect of Biosolids Application on Soil Quality and Ecotoxicity. *Water Environment Research*. 78(11):2217-2230.

◆ **Published Abstracts From Conference Presentations** (*the name of the person who presented the paper is underlined*)

International Conferences

1. ^GDonkin, S. and Williams, P. 1995. "Effects of Developmental Stage, Salts, and Food Presence on Aquatic Toxicological Endpoints Using *Caenorhabditis elegans* . Second Society of Environmental Toxicology and Chemistry World Congress, Vancouver, Canada (Abtr.#PT174).
2. ^GTatara, C.; Newman, M.; McCloskey, J.; and Williams, P. 1997. Predicting Relative Toxicity of Metal Ions Using Ion Characteristics: Microtox[®] and *Caenorhabditis elegans* Median Effect Concentrations. Seventh Annual Meeting of Society of Environmental Toxicology and Chemistry-Europe, Amsterdam, The Netherlands, April 6-10, 1997 (Abstr.# P6.12).
3. ^GMarse, T.; Black, M.; Newman, M.; and Williams, P. 1998. Lethality and Behavioral Responses of the Soil Nematode, *Caenorhabditis elegans*, to Coal Fly Ash. Eighth Annual Meeting of Society of Environmental Toxicology and Chemistry-Europe, Bordeaux, France, April 14-18 (Abstr.#3C/P028).
4. Williams, P.; ^GDhawan, R.; and Dusenbery, D.1998. Using Computer Tracking to Evaluate Behavioral Changes in the Soil Nematode, *Caenorhabditis elegans*. Eighth Annual Meeting of Society of Environmental Toxicology and Chemistry-Europe, Bordeaux, France, April 14-18 (Abstr.# 4E/003).
5. Williams, P.; ^GBoyd, W.; and ^PAnderson, G.1999. Behavioral Responses of *Caenorhabditis elegans* to Food Density, Developmental Stage, and Copper Exposure. 9th Annual Meeting of Society of Environmental Toxicology and Chemistry-Europe, Leipzig, Germany, May 25-29 (Abst.# 2k/P003).
6. Williams, P.; ^PAnderson, G.; and ^GBoyd, W. 2000. Comparison of Sub-lethal Endpoints for

- Toxicity Testing with the Nematode *Caenorhabditis elegans*. Third Society of Environmental Toxicology and Chemistry World Congress, Brighton, England, UK, May 21-25 (Abstr.#5J/P019).
7. Williams, P.; ^GTow, L.; Pang, Y.; and MacIntosh, D. 2000. Exposure to BTEX Compounds Using Small Gasoline Powered Engines. 4th International Scientific Conference of the International Occupational Hygiene Association, Cairns, Queensland, Australia, July 10-14 (Abstr.#72).
 8. ^GBoyd, W. and Williams, P. 2001. Toxicity of Metals to *Caenorhabditis elegans* in Soil Based on Spiking and Soil Solution Concentrations. 11th Annual Meeting of Society of Environmental Toxicology and Chemistry-Europe, Madrid, Spain, May 6-10 (Abstr. M/EH123).
 9. Black, M., Connors, D. E., Peredney, C. L., and Williams, P. L. 2001. Assessment of Soil and Sediment Toxicity after Heavy Metal Contamination of the Tisza River. 11th Annual Meeting of Society of Environmental Toxicology and Chemistry-Europe, Madrid, Spain, May 6-10 (Abstr.#230).
 10. ^GBoyd, W. and Williams, P. 2002. Comparison of the Sensitivity of Three Nematode Species in Various Toxicity Tests. 12th Annual Meeting of Society of Environmental Toxicology and Chemistry-Europe, Vienna, Austria, May 12-15 (Abstr.#38-60).
 11. ^GBoyd, W.; ^PAnderson, G., Williams, P. 2002. Effects of Metal Exposure on *Caenorhabditis elegans* Behavior Varies with Food Availability and Time. 12th Annual Meeting of Society of Environmental Toxicology and Chemistry-Europe, Vienna, Austria, May 12-15 (Abstr.#70-53).
 12. Kenney, S.; ^PAnderson, G., Williams, P.; Millner, P. and Beuchat, L. 2004. Attraction of *Caenorhabditis elegans* to Manure, Manure Compost, and Soil, and Potential Vectoring of *Salmonella* Newport to Preharvest Fruits and Vegetables. The 19th International ICFMH Symposium, Portorož, Solvenia, September 12-16 (Abstr. #P14-21).
 13. Stormberg, A.I., Barnes, J., Humphries S., Glenn T., and Williams P. (2006). Development of a transgenic line (HS-1) of *Caenorhabditis elegans* for detection of heavy metals in aquatic media. European Worm Meeting, Herissonissos, Crete, Greece, April 29-May 3 (Abstract # P142), page 286. (*Note, Won best paper award for the meeting*)
 14. Williams, P., Ma, H., Glenn, T., Jagoe, C., Jackson, B. and Bertsch, P. (2006). The Use of Nematodes in Determining Metal Bioavailability. 9th International Symposium on Metal Ions in Biology and Medicine, Lisbon, Portugal, May 21-24 (Abstract O-29), page 69.
 15. Ma, H., Bertsch, P., Unrine, J., Glenn, T. and Williams, P. (2006). Bioavailability and toxicity of nanosized ZnO particles in the nematode. SETAC Asia/Pacific 2006, Growth with a Limit: the Integration of Ecosystem Protection for Human Health Benefits, September 18-20, Peking University, China, (Abstract B3-5).
 16. Ma, H., Glenn, T., Jagoe, C., and Williams, P. (2006). Use of metallothionein-2:GFP transgenic *Caenorhabditis elegans* to evaluate metal bioavailability and toxicity. SETAC Asia/Pacific 2006, Growth with a Limit: the Integration of Ecosystem Protection for Human Health Benefits, September 18-20, Peking University, China, (Abstract D2-4).

North American Conferences

1. Williams, P. and Dusenbery, D. 1987. New Types of Toxicological Screening Tests Using a Nematode Species, *Caenorhabditis elegans*. American Industrial Hygiene Conference,

- Montreal, Quebec, Canada. American Industrial Hygiene Conference Abstracts. 176:102.
2. Williams, P.; Kolp, P.; and Burtan, R. 1994. An Evaluation of the Accuracy of Material Safety Data Sheets. American Industrial Hygiene Conference & Exposition, Anaheim, CA. American Industrial Hygiene Conference & Exposition Abstracts. 85:19.
 3. Williams, P.; James, R.; and Roberts, S. 1994. An Evaluation of the Adequacy of the Threshold Limit Value for Cyclonite. American Industrial Hygiene Conference & Exposition, Anaheim, CA. American Industrial Hygiene Conference & Exposition Abstracts. 146:32.
 4. ^GDonkin, S. and Williams, P. 1995. Multivariate Analysis of Aquatic Test Conditions Affecting the Toxicities of Four Metals to the Nematode *Caenorhabditis elegans*. The Toxicologist and Abstract Issue of Fundamental and Applied Toxicology.15(1):173 (Abtr.#923).
 5. ^GLehocky, A. and Williams, P. 1995. "Calibration of a Continuous-Reading Aerosol Monitor (Miniram) To Measure Respirable Coal Dust Exposures". American Industrial Hygiene Conference & Exposition, Kansas City, KS. American Industrial Hygiene Conference & Exposition Abstracts. (Abtr.#283).
 6. Williams, P. and ^GLehocky, A. 1995. "Comparison of Gravimetric Samplers to Two Direct Reading Real-Time Aerosol Monitors (Miniram and DustTrack) For Measuring Respirable Coal Dust". American Industrial Hygiene Conference & Exposition, Kansas City, KS. American Industrial Hygiene Conference & Exposition Abstracts. (Abtr.#231).
 7. ^GCressman, C. and Williams, P. 1996. Reference Toxicants Toxicity Testing Using *Caenorhabditis elegans* in Aquatic Media. Sixth Symposium on Environmental Toxicology and Risk Assessment: Modeling and Risk Assessment, ASTM, Orlando, FL, April 14-18, 1996, p. 94.
 8. ^GTatara, C.; Newman, M.; McCloskey, J. and Williams, P. 1996. Predictive Models for Relative Toxicity of Divalent Metal Ions: *Caenorhabditis elegans* LC50. Sixth Symposium on Environmental Toxicology and Risk Assessment: Modeling and Risk Assessment, ASTM, Orlando, FL, April 14-18, p. 57.
 9. Campbell, J.; Eiteman, M.; Williams, P.; Boeniger, M.; and Smith, M. 1996. Effects of Solvents on Recovery of Selected Pesticides from an *In Vitro* Porcine Skin Model. The Toxicologist and Abstract Issue of Fundamental and Applied Toxicology. 30(1):52 (Abtr.#270).
 10. ^GHitchcock, D.; Law, S. E.; Wu, J.; and Williams P. 1996. Determining Toxicity Trends in the Ozonation of Dye Wastewater Using *Caenorhabditis elegans*. Society of Environmental Toxicology and Chemistry 17th Annual Meeting, Washington, D.C. November 17-22, (Abstr.# 604).
 11. ^GHitchcock, D.; and Williams, P. 1996. Relative Toxicity Testing of Water Samples from a Wastewater Treatment Facility Using *Caenorhabditis elegans*. Society of Environmental Toxicology and Chemistry 17th Annual Meeting, Washington, D.C. November 17-22 (Abstr.# 603).
 12. ^GGreene, R.; Manning, R.; and Williams, P. 1997. Ambient Concentrations of Aldehydes in a Southeastern Coastal City and Evaluation of Potential Health Impacts. The Toxicologist and Abstract Issue of Fundamental and Applied Toxicology. 36(1):285 (Abstr.#1449).
 13. ^TFreeman, M.; ^GMarse, T. and Williams, P. 1997. Establishment of Quality Assurance Procedures for Aquatic Toxicity Testing With the Nematode *Caenorhabditis elegans*. Seventh Symposium on Environmental Toxicology and Risk Assessment, ASTM, St.

- Louis, Missouri, April 7-9, 1997, p. 62.
14. ^GHeath, D.; ^GGreene, R.; and Williams P. 1997. Ambient Air Aldehyde Fluctuations in Coastal Georgia. American Industrial Hygiene Conference & Exposition, Dallas, TX. American Industrial Hygiene Conference & Exposition Abstracts. (Abstr.#307).
 15. ^GTatara, C.; Newman, M.; McCloskey, J.; and Williams, P. 1997. Predicting Relative Toxicity of Metal with Ion Characteristics: *Caenorhabditis elegans* LC50. Society of Environmental Toxicology and Chemistry 18th Annual Meeting, San Francisco, CA, November 16-20 (Abstr.#PMP064).
 16. ^GMarse, T.; Newman, M.; and Williams, P. 1997. Coal Fly Ash Toxicity Testing Using *Caenorhabditis elegans*. Society of Environmental Toxicology and Chemistry 18th Annual Meeting, San Francisco, CA, November 16-20 (Abstr.#PTP123).
 17. ^GMarse, T.; Black, M.; Newman, M.; and Williams, P. 1998. Lethality and Behavioral Responses of a Soil Nematode to Coal Fly Ash. ASTM 8th Symposium on Environmental Toxicology and Risk Assessment, Atlanta, GA, April 20-23, p. 62.
 18. ^GDhawan, R.; Dusenbery, D.; and Williams, P. 1998. Evaluation of Behavioral Changes Using Computer Tracking with the Nematode, *Caenorhabditis elegans*. ASTM 8th Symposium on Environmental Toxicology and Risk Assessment, Atlanta, GA, April 20-23, p. 61.
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 20. Williams, P.; Pierce, M.; Sanders, A.; and Frumkin, H. 1998. Reconstruction of Past Mercury Exposures at a Chloralkali Plant. American Industrial Hygiene Conference & Exposition, Atlanta, GA, May 9-15 (Abstr.#91).
 21. ^GDhawan, R.; Dusenbery, D.; and Williams, P. 1998. Quantifying Behavioral Changes in the Nematode, *Caenorhabditis elegans*, Using Computer Tracking. Society of Environmental Toxicology and Chemistry 19th Annual Meeting, Charlotte, NC, November 15-19 (Abstr.# PWA060).
 22. ^GPeredney, C. and Williams, P. 1999. Comparison of the Toxicological Effects of Nitrate versus Chloride Metallic Salts on *Caenorhabditis elegans* in Soil. ASTM 9th Symposium on Environmental Toxicology and Risk Assessment, Seattle WA, April 19-21, p. 77.
 23. ^GBoyd, W.; ^PAnderson, G; Dusenbery, D. and Williams, P. 1999. Computer Tracking Method for Assessing Behavioral Changes in the Nematode *Caenorhabditis elegans*. ASTM 9th Symposium on Environmental Toxicology and Risk Assessment, Seattle WA, April 19-21, p. 78.
 24. Williams, P. MacIntosh, D.; ^GWhittaker, L.; and Higgins, G. 1999. Diesel Exhaust Exposures in the Electric Utility Industry. American Industrial Hygiene Conference & Exposition, Toronto, Ontario, Canada, June 5-11 (Abstr.#62).
 25. Boeniger, M.; Williams, P.; Campbell, J.; Smith, M.; and Eiteman, M. 1999. Comparison of Wiping Solvents for Sampling Pesticides on Skin. American Industrial Hygiene Conference & Exposition, Toronto, Ontario, Canada, June 5-11 (Abstr.#334).
 26. Logan, J.; MacIntosh, D.; Williams, P.; and Higgins, G. 1999. Homogeneous Exposure Groups in a Coal-Fueled Power Facility. American Industrial Hygiene Conference & Exposition, Toronto, Ontario, Canada, June 5-11 (Abstr.#483).
 27. ^GBoyd, W. and Williams, P. 1999. Comparison of LC₅₀ Values of *Caenorhabditis elegans* and *Eisenia fetida* in Soil. Society of Environmental Toxicology and Chemistry 20th Annual Meeting, Philadelphia, PA, November 14-18 (Abstr.# PTA079).

28. ^GBoyd, W.; ^PAnderson, G. and Williams, P. 1999. Effects of Metals and Food Availability on Behavior of *Caenorhabditis elegans*. Society of Environmental Toxicology and Chemistry 20th Annual Meeting, Philadelphia, PA, November 14-18 (Abstr. # PTA246).
29. ^GBoyd, W.; and Williams, P. 2000. Comparison of LC50 Values of *Caenorhabditis elegans* and *Eisenia fetida* in Soil. ASTM 10th Symposium on Environmental Toxicology and Risk Assessment, Toronto, Ontario, Canada, April 10-12, p. 51.
30. ^GBoyd, W. and Williams, P. 2000. Toxicity of Metals to *Caenorhabditis elegans* in Soil Based on Spiking and Soil Solution Concentrations. Society of Environmental Toxicology and Chemistry 21th Annual Meeting, Nashville, TN, November 12-16 (Abstr.# PHA113).
31. ^GBoyd, W., ^PAnderson, G. and Williams, P. 2001. Food Availability During Exposure to Metals Influences the Behavior of *Caenorhabditis elegans*. Society of Environmental Toxicology and Chemistry 22th Annual Meeting, Baltimore, MD, November 11-15 (Abstr.# PH096).
32. ^GBird, M.; MacIntosh, D.; Higgins, G. and Williams, P. 2002. Occupational Exposures During Routine Activities in Coal-fueled Power Plants. American Industrial Hygiene Conference & Exposition, San Diego, CA, June 1-6 (Abstr.#202).
33. Caldwell, K.; ^PAnderson, G.; Williams, P.; and Beuchat, L. 2002. Attraction of a Free-Living Nematode, *Caenorhabditis elegans*, to *Escherichia coli* O157:H7 and *Salmonella*, and Its Potential as a Vector for Preharvest Contamination of Fruits and Vegetables. 89th Annual Meeting of the International Association for Food Protection, San Diego, CA, June 30-July 3 (Abstr.#P104).
34. ^GBoyd, W. and Williams, P. 2002. Aquatic and Soil Toxicity Testing Using Three Free-living Nematode Species. Society of Environmental Toxicology and Chemistry 23rd Annual Meeting, Salt Lake City, UT, November 16-20 (Abstr.#P228).
35. Caldwell, K.; Adler, B.; ^PAnderson, G.; Williams, P.; and Beuchat, L. 2003. Ingestion of *Salmonella* Poona, by a Free-living Nematode, *Caenorhabditis elegans*, and Protection Against Inactivation by Sanitizers. Third Annual IFPA & S-294 Poster Session, IFPA 16th Annual Conference, Tampa, FL, April 3-5.
36. Beuchat, L.; Williams, P. and Millner, P. 2003. Role of Soil Nematodes in Vectoring Pathogenic Bacteria to Fruits and Vegetables. USDA ARS-NAFS Mini-Symposium, New Orleans, LA, August 9.
37. Kenney, S.; ^PAnderson, G., Williams, P.; and Beuchat, L. 2003. Persistence of *Escherichia coli* O157:H7, and *Salmonella* Poona in the Gut of a Free-living Nematode, *Caenorhabditis elegans*. 90th Annual Meeting of the International Association for Food Protection, New Orleans, LA, August 10-13 (P054).
38. Caldwell, K.; Adler, B.; Anderson, G.; Williams, P.; and Beuchat, L. 2003. Ingestion of *Salmonella* Poona by a Free-living Nematode, *Caenorhabditis elegans*, and Protection against Inactivation by Sanitizers. 90th Annual Meeting of the International Association for Food Protection, New Orleans, LA, August 10-13 (P257).
39. Gibbs, D.S., G.L. Anderson, L.R. Beuchat, and Williams, P. 2003. Potential Role of *Diploscater*, A Free-living Nematode, as a Vector of Pathogenic Bacteria to Pre-harvest Fruits and Vegetables in Soil, Second Annual Biomedical & Health Sciences Institute (BHSI) Retreat, Athens, GA, October 8 (P13).
40. Gibbs, D.S., G.L. Anderson, L.R. Beuchat, and Williams, P. 2003. Potential Role of *Diploscater*, A Free-living Nematode, as a Vector of Pathogenic Bacteria to Pre-harvest Fruits and Vegetables in Soil, Southeastern and South Carolina Branches of the American

- Society for Microbiology Annual Meeting, Athens, GA, October 30-November 1 (P9).
41. ^GGraves, A.L., Boyd, W., and Williams, P. 2003. Using Transgenic Strains of *Caenorhabditis elegans* in Soil Bioassays. Society of Environmental Toxicology and Chemistry 24th Annual Meeting, Austin, TX, November 9-13 (Abstr.#419).
 42. Glenn, T., ^GGraves, A., Humphries, S., Jagoe, C., Krizek, B., and Williams, P. 2003. Transgenic *Caenorhabditis elegans* to Measure Bioavailable Metals and Mutagenicity. Society of Environmental Toxicology and Chemistry 24th Annual Meeting, Austin, TX, November 9-13 (Abstr.#PW099).
 43. Kenney, S.; ^PAnderson, G., Williams, P.; Millner, P. and Beuchat, L. 2004. Effectiveness of Cleaners and Sanitizers in Killing *Salmonella* Newport in the Gut of a Free-living Nematode, *Caenorhabditis elegans*. International Association of Food Protection 91st Annual Meeting, Phoenix, Arizona, August 8-11 (Abstr. #P233).
 44. Jackson, B.; Williams, P.; Bertsch, P. and Lanzirotti, A. 2004. Synchrotron X-ray techniques to determine uptake, distribution and speciation of metals in the nematode *Caenorhabditis elegans*. Fourth Society of Environmental Toxicology and Chemistry World Congress and 25th Annual Meeting in North America. Portland, OR, November 14-18 (Abstr. #113).
 45. Glenn, T.; ^GGraves, A.; Humphries, S.; Krizek, B.; Jagoe, C.; Stromberg, A. and Williams, P. 2004. Direct Assessment of Mutagenicity Using GFP Transgenic *C. elegans*. Fourth Society of Environmental Toxicology and Chemistry World Congress and 25th Annual Meeting in North America. Portland, OR, November 14-18 (Abstr. #114).
 46. ^GGraves, A.; Williams, P.; Humphries, S., Jagoe, C.; Stromberg, A. and Glenn, T. 2004. Bioavailability of Metals Assessed Using MTL-2:GFP Transgenic *C. elegans*. Fourth Society of Environmental Toxicology and Chemistry World Congress and 25th Annual Meeting in North America. Portland, OR, November 14-18 (Abstr. #115).
 47. Williams, P.; Graves, A. and Peredney, C. 2004. Determination of Effect of Percent Moisture on Soil Toxicity Tests Using Nematodes. Fourth Society of Environmental Toxicology and Chemistry World Congress and 25th Annual Meeting in North America, Portland, OR, November 14-18 (Abstr. #PH125).
 48. ^GMelstrom, P. and Williams, P. 2006. Exploring the Use of nematode *Caenorhabditis elegans* for Mammalian Neurotoxicity Using Carbamate Pesticides. The Toxicologist and Abstract Issue of Toxicological Sciences. Volume 90(1):Abstract #47.
 49. ^GMelstrom, P. and Williams, P. 2006. Assessing Carbamate Pesticide Exposure Using the Soil-dwelling Nematode, *Caenorhabditis elegans*. Society of Environmental Toxicology and Chemistry 27th Annual Meeting in North America, Montreal, Quebec, Canada, November 5-9 (Abstr. #P757).
 50. Rajini, P.S., ^GMelstrom, P. and Williams, P. 2006. A Comparison of Toxicological Endpoints for Organophorous Insecticides Using the Soil Nematode, *Caenorhabditis elegans*. Society of Environmental Toxicology and Chemistry 27th Annual Meeting in North America, Montreal, Quebec, Canada, November 5-9 (Abstr. #469).

◆ **Financial Support Received at UGA**

Grants

\$35,000 “Development of Environmental Performance Measurement System” The Southern Company and Georgia Power Company, June 1994-December 1996. Principal Investigator.

- \$25,000 “Analytical Evaluation of Polyethylene Glycol Solvent Recovery of Selected Agricultural Pesticides”, NIH/CDC/NIOSH. July 1994 - July 1996. Principal Investigator.
- \$35,000 “Indoor Air Quality Research”, The Georgia Power Company. February 1995 - December 1996. Principal Investigator.
- \$160,000 “Industrial Hygiene Research”, The Georgia Power Company. July 1995 - December 2004. Principal Investigator.
- \$31,000 “Toxicity Testing of Textile Dye Waste”, CCATI Project, Georgia Textile Initiative. July 1995 - June 1998. Principal Investigator.
- \$7,500 “QSAR-like Models of Mono-, Di-, and Trivalent metal Toxicity Based on Ion Qualities: *Caenorhabditis elegans* LC50”, Interdisciplinary Program in Environmental Toxicology, Board of Regents, University System of Georgia. September 1995 - June 1996. Co-Principal Investigator.
- \$60,000 “Daily and Seasonal Variation in Ambient Formaldehyde Levels in the Savannah, Georgia Area”, Air Quality Branch, Environmental Protection Division, Dept. of Natural Resources, State of Georgia. December 1995 - June 1998. Principal Investigator.
- \$7,125 “Using Behavioral Changes in the Nematode *Caenorhabditis elegans* as an Indicator for Environmental Toxicology”, Interdisciplinary Toxicology Program, Board of Regents, University System of Georgia. September 1996 - June 1996. Principal Investigator.
- \$1,089,971 “Cohort Study of Former Employees of a Chloralkali Plant”, NIH/NIEHS (RO1ES08346), January 1997 - December 1998. Co-Principal Investigator for project and Principal Investigator for UGA portion (\$60,000),
- \$20,000 “Use of the Nematode *Caenorhabditis elegans* as Alternative Test Organism for the Pharmaceutical Industry” Bracco Diagnostics, Princeton, NJ. September 1998 - July 1999. Principal Investigator.
- \$30,000 “Development of *Caenorhabditis elegans* as Alternative Test Organism for *Clostridium botulinum*”, Center for Food Safety and Quality Enhancement. January 1999 - June 2000. Principal Investigator.
- \$46,210 “Assessment of Toxic Release Inventory Data”, Georgia Power Company, January 1999 through June 1999. Principal Investigator.
- \$3,000 “Industrial Hygiene Air Sampling Equipment”, SKC Inc., September 1999. Principal Investigator.

- \$150,000 “Research Support for Renovation of Research Laboratory”, The Georgia Power Company, July 1999. Principal Investigator.
- \$11,000 “Use of *Caenorhabditis elegans* for Toxicity Testing at the City of Fitzgerald, GA Waste Water Treatment Facility”, Carter & Sloop, Macon, GA. January 2000 - June 2000. Principal Investigator.
- \$25,000 “Use of *Caenorhabditis elegans* for Performing a Toxicity Investigation and Evaluation (TIE) of a Waste Water Treatment Facility at the City of Fitzgerald, GA”, Carter & Sloop, Macon, GA. July 2000 - June 2002. Principal Investigator.
- \$59,420 “Using the Nematode *Caenorhabditis elegans* for Assessing Safe Fruit and Vegetable Production”, USDA-CSREES Special Research Grant, September 2001 through August 2003, Principal Investigator (Sub-project of a an overall effort entitled “Safe Fruit and Vegetable Production funded at \$266,592, Co-PI).
- \$115,000 “Role of Nematodes in Pre-harvest Contamination of Fruits and Vegetables with Pathogenic Bacteria”, National Alliance for Food Safety, USDA, July 2002 through June 2005. Co-Principal Investigator.
- \$22,100 “Development and Use of Transgenic *Caenorhabditis elegans* to Measure Bioavailability of Metals and Mutagenicity in Contaminated Media” Bechtell/USDOE, Idaho National Environmental Laboratory, March 2004 – September 2004. Co-Principal Investigator
- \$25,000 “Determination of Effect of Percent Moisture on Soil Toxicity Tests Using Nematodes” State of Washington, Department of Ecology, May 2004 through July 2004. Principal Investigator.
- \$340,000 “Bioavailability of Metals in Two Former Ash Settling Basins from Coal-fired Power Plants: Capping vs. Natural Attenuation” The Georgia Power Company. January 2005 - December 2007. Principal Investigator.
- \$363,680 “The Bioavailability, Toxicity, and Trophic Transfer of Manufactured ZnO Nanoparticles” USEPA, STAR Grant #RD832530. October 2005 – September 2008. Co-Principal Investigator.
- \$35,000 “Study of Employee Heat Stress in a Coal-fired Electric Utility” The Georgia Power Company. April 2006 – May 2007. Principal Investigator.

◆ **Editorship or Editorial Board Member of Journals or Other Learned Publications**

1. Contributing Editor, Toxicology Section, *Environmental Protection*, 1990 - 1995.
2. Editorial Advisory Board, *Environmental Protection*, 1990 -1995.
3. Reviewer of articles for the following scientific journals: *Nature*, *Environmental Toxicology*

and Chemistry, Environmental Science and Technology, Archives of Environmental Contamination and Toxicology, Journal of Nematology, Advances in Environmental Research, ASTM, Environmental Pollution, Ecotoxicology and Environmental Safety, Neurotoxicology, Toxicology and Applied Pharmacology, Toxicological Sciences, American Industrial Hygiene Association Journal, and Environmental and Occupational Hygiene.

4. Refereed 12 book proposals in the environmental health related field for Van Nostrand Reinhold, New York, and 1986 - 1993.

5. Editorial Review Board Member, *American Industrial Hygiene Association Journal*, 1999 - 2003.

6. Editorial Board Member, *Environmental Toxicology and Chemistry* (SETAC Journal), 2003 - 2006.

7. Editorial Board Member, *International Journal of Human and Ecological Risk Assessment* (HERA), 2005 – Present.

◆ Major Presentations Without Published Abstracts

Presentations at International Sites or Conferences

Invited presentation entitled “Screening Tests for Neurotoxins Using *Caenorhabditis elegans*” presented to the 31st OHOLO Conference on Model Systems in Neurotoxicology - Alternative Approaches to Animal Testing, Israel Institute for Biological Research, Tiberias, Israel, November 6, 1986.

Invited presentation entitled “Innovative Method for Site Assessment Using Computer Tracking to Evaluate Behavioral Changes in the Soil Nematode *Caenorhabditis elegans*”. Fourth International Symposium and Exhibition on Environmental Contamination in Central and Eastern Europe, Warsaw, Poland, September 16, 1998.

Invited presentation entitled “You can learn a lot with a few neurons - Toxicological testing using *Caenorhabditis elegans*” presented to the School of Life and Environmental Sciences, The University of Nottingham, Nottingham, England, UK, May 18, 2000.

Invited presentation entitled “Development of Methods for Using the Soil Nematode, *Caenorhabditis elegans*, for Contaminated Site Assessments” presented to the Fifth International Symposium and Exhibition on Environmental Contamination in Central and Eastern Europe, Prague, Czech Republic, September 12, 2000.

Invited presentation entitled “Ecotoxicological Testing Using the Soil Nematode *Caenorhabditis elegans*” presented to GSF-Research Center’s Workshop on Molecular Ecotoxicology (Forschungszentrum für Umwelt und Gesundheit GmbH), Munich, Germany, September 18, 2000.

Invited presentation entitled “Toxicity of Tisza River Floodplain Soils to the Nematode *Caenorhabditis elegans*” presented to the 4th Tisza Conference, Nemzetközi Tisza Program, Szent István University, Gödöllő, Hungary, May 21, 2001.

Invited presentation entitled “Soil Metal Content and Bioavailability Data from Tisza River Floodplain Contaminated Sites” presented to Tisza River Workshop held at the Research

- Institute for Soil Science and Agricultural Chemistry of the Hungarian Academy of Sciences (RISSAC), Budapest, Hungary, September 16, 2002.
- Invited presentation entitled “Uses of the Free-living Nematode *Caenorhabditis elegans* in Environmental Toxicological Studies” presented to the First VN-US Workshop on Ecosystem Assessment, Management and Restoration, Hanoi, Vietnam, March 16, 2004.
- Invited presentation entitled “Soil Toxicity Testing Using Nematodes” presented to the First VN-US Workshop on Ecosystem Assessment, Management and Restoration, Hanoi, Vietnam, March 18, 2004.
- Invited presentation entitled “University of Georgia’s Environmental Health Program” presented to Environmental Sciences Program, United Arab Emirates University, Al Ain, United Arab Emirates, May 30, 2004.
- Invited presentation entitled “The Use of Nematodes in Determining Metal Bioavailability” presented to 9th International Symposium on Metal Ions in Biology and Medicine, Lisbon, Portugal, May 22, 2006.
- Invited presentation entitled “University of Georgia’s College of Public Health and Public Health Work in Peru” presented to the Universidad Peruana Cayetano Heredia, Lima, Peru, October 5, 2006.

Presentations at National Sites or Conferences

- Invited presentation entitled “Alternatives Methods for Toxicological Testing” presented to the Pharmaceutical Industry Annual Toxicology Forum, Short Hill, NJ, November 10, 1988.
- Invited presentation entitled “Estimating Safe Human Exposure to Environmental Chemicals” presented to the Environmental Health and Safety Department, Merck and Company, White Horse Station, NJ, April 10, 1994.
- Invited presentation entitled “The Use of *Caenorhabditis elegans* as an Alternative Animal in Toxicological Testing” presented to Bracco Diagnostics Research Corporation, Princeton, NJ, March 18, 1998.
- Invited presentation entitled “Diesel Exhaust Emissions -- An Industrial Hygiene Case Study” Edison Electric Institute’s 1998 National Occupational Safety & Health Conference, Detroit, MI, April 28, 1998.
- Invited presentation entitled “Industrial Hygiene Research: The Relationship Between The University of Georgia and The Georgia Power Company” American Industrial Hygiene Conference & Exposition, Atlanta, GA, May 11, 1998.
- Invited presentation entitled “Mercury Epidemiology Study: Exposure Assessment” presented to Edison Electric Institute’s 2000 National Occupational Safety & Health Conference, Savannah, GA, May 3, 2000.
- Invited presentation entitled “Potential Role of Nematodes in Contamination of Fresh Fruits and Vegetables with Pathogenic Bacteria” presented to Foodborne and Diarrheal Disease Branch, National Center for Infectious Disease, Centers for Disease Control and Prevention (CDC), Atlanta, GA, September 26, 2003.
- Invited presentation entitled “Using the Nematode *Caenorhabditis elegans* as a Toxicological Model” presented to the Clemson Institute of Environmental Toxicology, Clemson University, Clemson, SC, October 31, 2003.
- Invited presentation entitled “*C. elegans* to Screen Neurotoxic Chemicals” presented at the Annual Meeting of the Southeastern Chapter of the Society of Toxicology meeting entitled “The Environment and Neurodegeneration” held at Emory University, Atlanta, GA, October 8, 2004.
- Invited presentation entitled “Potential Uses for the Nematode, *Caenorhabditis elegans*, in

Toxicological Testing” presented to American College of Toxicology 26th Annual Meeting, Non-Traditional Animal Models in Toxicology, Continuing Education Course #3, Williamsburg, VA, November 6, 2005.

Presentations at State-sponsored Meetings

- Invited presentation entitled “Occupational Health and Safety Issues in the Dairy Industry” presented to the Georgia Dairy Products Association Annual Meeting, Callaway Gardens, GA, April 26, 1994.
- Invited presentation entitled “Use of the Nematode, *Caenorhabditis elegans*, in Ecotoxicology”, presented to the University of Georgia’s Savannah River Ecology Laboratory, Savannah River Site, Aiken, SC, October 20, 1994.
- Invited presentation entitled “UGA’s Environmental Health Science Program” presented to UGA’s College of Agricultural and Environmental Sciences Unity Tour, June 27, 1995.
- Invited presentation entitled “Environmental Health Science: Development of Future Workforce” presented to the Governor’s Science & Technology Advisory Council, July 25, 1995.
- Invited presentation entitled “Environmental Health Science: Changes in Agriculture” presented to Georgia Agri-Leaders Forum, September 14, 1995.
- Invited presentation entitled “UGA’s Environmental Health Science Program” presented to the Poultry Science Department (Departmental Seminar), University of Georgia, March, 1996.
- Invited presentation entitled “UGA’s Environmental Health Science Program” presented to Winter Meeting of the Georgia Local Section of the American Industrial Hygiene Association, Atlanta, GA, January 24, 1997.
- Invited presentation entitled “Overview of Environmental Health Science Research Projects” presented to Department of Biological and Agricultural Engineering, University of Georgia, January 28, 1998.
- Invited presentation entitled “Preliminary Fine Particle Concentrations in Athens and Implications to the New Federal Ambient Air Quality Standards” presented to Consortium of Associated Carpet and Textile Industries, Athens, GA, February 16, 1998.
- Invited presentation entitled “Industrial Hygiene Case Studies” presented to Department of Environmental and Occupational Health, Rollins School of Public Health, Emory University, Atlanta, GA, November 30, 1998.
- Invited presentation entitled “Industrial Hygiene and Its Interaction with the Medical Profession” presented to Medical Residents, Medical Interns, and Senior Medical Students, Medical College of Georgia, Augusta, GA, December 16, 1998.
- Invited presentation entitled “Human Health Effects of Pesticide Exposures” presented to the Satellite 2000 Pesticide Workshop sponsored by the UGA Cooperative Extension Service, Lawrenceville, GA, February 17, 2000.
- Invited presentation entitled “Nematodes as an Alternative to Mice for Botulinal Toxin Assay” presented to Seventh Annual Meeting of Center for Food Safety and Quality Enhancement, Atlanta, GA, March 7, 2000.
- Invited presentation entitled “Comparison of Occupational Exposure Limits for Respirable Free Silica” presented to The American Society of Safety Engineers’ Professional Development Conference, Augusta, GA, May 8, 2000.
- Invited presentation entitled “Industrial Hygiene Case Studies” presented to Health Physics Graduate Program, Georgia Institute of Technology, Atlanta, GA, November 16, 2000.
- Invited presentation entitled “Comparison of Occupational Exposure Limits for Respirable Free Silica” presented to The Georgia Local Section of the American Industrial Hygiene Association Quarterly Meeting, Atlanta, GA, January 22, 2001.

Invited presentation entitled “Case Studies in Industrial Hygiene” presented to the Biological Engineering Club, Department of Biological and Agricultural Engineering, The University of Georgia, Athens, GA, February 7, 2001.

Invited presentation entitled “Choosing Career Paths in the Environmental Sciences” presented to class entitled “Tools of Science” BIOL 8802, School of Biology, Georgia Institute of Technology, March 27, 2002.

Invited presentation entitled “Case Studies in Environmental Health” presented to 1st year medical students, Medical College of Georgia, Augusta, GA, April 29, 2002.

Invited presentation entitled “Toxicology for Lawyers” presented to Toxic Torts Seminar, Environmental Law Section, State Bar of Georgia, Atlanta, GA, November 14, 2003.

Invited presentation entitled “UGA’s Environmental Health Science Department and Georgia Power” presented to the Georgia Power Bulldog Club quarterly meeting, Atlanta, GA, February 17, 2004.

Invited presentation entitled “UGA’s New College of Public Health” presented to the Athens Kiwanis Club, Athens, GA, January 24, 2006.

4.0 PUBLIC SERVICE

◆ International Programs

1. *Session Moderator*, Modeling & Computer Applications, Fourth International Symposium and Exhibition on Environmental Contamination in Central and Eastern Europe, Warsaw, Poland, September 17, 1998.
2. *Advisor to Dal-Monte Company*, Monterrey, Mexico on silica and lead (Pb) employee exposure issues in the manufacture of ceramic tiles, January 1999 to present. (Five trips to Monterrey, Mexico 1999 - Present).
3. *Assisting faculty at Szent Istvan University*, Gödöllő, Hungary with assessing metal contamination of soil in an area flooded by the Tisza River polluted with Pb, Cu and Zn from a Romanian mine. Visit made to the region in May 2000 to collect samples and in process of performing toxicity tests using *C. elegans*.
4. *Session Moderator*, Ecological and Environmental Quality Studies, Fifth International Symposium and Exhibition on Environmental Contamination in Central and Eastern Europe, Prague, Czech Republic, September 11-13, 2000.
5. *Judge for Poster Competition*, Fifth International Symposium and Exhibition on Environmental Contamination in Central and Eastern Europe, Prague, Czech Republic, September 11-13, 2000.
6. *Assistance to GSF-Research Center* (Forschungszentrum für Umwelt und Gesundheit GmbH), Munich, Germany in filling an endowed chair in ecotoxicology, October 2000.
7. *Reviewer for John Wiley & Sons, Ltd*, West Sussex, England, UK for book proposal in environmental toxicology, March 2001.
8. *Chair Person*, Plenary Session entitled Sustainability: Development, Land Use, and Risk Assessment. First VN-US Workshop on Ecosystem Assessment, Management and Restoration, Hanoi, Vietnam, March 16, 2004.
9. *External Reviewer*, M.S. Student in Environmental Sciences, United Arab Emirates University, Al Ain, United Arab Emirates, May 2004.
10. *External Grant Application Reviewer*, Council for Earth and Life Sciences, Netherlands Organization for Scientific Research, The Hague, The Netherlands, November 2004.
11. *External Grant Application Reviewer*, The United States – Israel Binational Agricultural Research and Development Fund, November 2005.

12. *External Grant Application Reviewer*, National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs), Medical Research Council, London, England, UK, April 2006.

◆ **National Services and Relations**

1. *Member*, Toxicology Committee, American Industrial Hygiene Association, 1981 - 1987.
2. *Membership Task Force*, Long Range Planning Committee, American Industrial Hygiene Association, 1983.
3. *Advisor to the USDOL/OSHA* in their development of a revised cotton dust standard. 1982.
4. *Advisor to the USDOL/OSHA* in their development of a cotton seed processing standard. 1983.
5. *Toxicology Session Arranger*, American Industrial Hygiene Association Annual Meeting, Las Vegas, May 1985.
6. *Advisor to the USDOL/OSHA* in their establishment of an occupational exposure standard for formaldehyde. 1986.
7. *Advisor to the USDOL/OSHA* in their adoption of ACGIH TLVs to replace the OSHA Permissible Exposure Limits. Provided the Agency's Industrial Hygiene testimony in the rulemaking hearings before an administrative judge in Washington, DC. 1987-1988.
8. *Advisor to Dugway Proving Grounds*, Dugway, UT on chemical safety issues, 1988 - 1990.
9. *Advisor to the USDOL/OSHA* in their establishment of a Process Safety Management standard. Provided the Agency's Industrial Hygiene testimony in the rulemaking hearings before an administrative judge in Washington, DC. 1989-1990.
10. *Advisor to Nevada Test Site* on chemical safety issues, 1989 - 1992.
11. *Advisor to Zellerbach Corporation* in establishing a corporate health and safety program, 1989 - 1991.
12. *Advisor to Hanford (Washington) Nuclear Site* on chemical safety issues, 1990 - 1992.
13. *Advisor to the USDOL/OSHA* in the revising of their Personal Protective Equipment standard. 1990-1992.
14. *Advisor to the USDOL/OSHA* in assessing the effectiveness of the Hazard Communication standard. 1990-1991.
15. *Advisor to Georgia Gulf* on preparation of Material Safety Data Sheets for company chemical products produced at sites in LA and TX, 1991 - 1992.
16. *Advisor to Dal-Tile Corporation* (Dallas, Texas) on silica and metal employee exposure issues related to the manufacture of ceramic tile. Site visits made to all 13 manufacturing facilities in the U.S. and Mexico. September 1993 to present.
17. *Advisor to TechLaw, Inc.* (Chantilly, VA) on environmental health and safety issues, 1993 - present.
18. *Advisor to the State of Florida* on Indoor Air Quality issues in State-owned buildings, 1994 - 1998.
19. *Panelist*, Hazard Risk/Communications and Training Roundtable Discussion, American Industrial Hygiene Conference & Exposition, Anaheim, CA, May 24, 1994.
20. *Member*, Conference Organizing Committee for 1998 American Industrial Hygiene Conference & Exposition, 1996 - 1998.
21. *Chair*, Technical Tour Subcommittee, Conference Organizing Committee for 1998 American Industrial Hygiene Conference & Exposition, 1996 - 1998.
22. *Site Review Member* for the Accreditation Board for Engineering and Technology (ABET) for Industrial Hygiene Programs, 1997 to present.
23. *Member*, ASTM Committee E-47 on Biological Effects and Environmental Fate and

- Subcommittee 12, Behavioral Toxicology, 1998 to present.
24. *Member*, ASTM Committee E-47 on Biological Effects and Environmental Fate and Subcommittee 11, Sediments and Soil, 1998 to present.
 25. *Panelist*, Promoting Occupational Hygiene Research Through Partnerships, Roundtable 224, American Industrial Hygiene Conference & Exposition (International Meeting), Atlanta, GA, May 11, 1998.
 26. *Advisor to Consolidated Edison* (ConEd of New York) on employee chemical exposure issues in electric power generation and delivery systems, December 1999 to June 2000.
 27. *Advisor to the USDA* on chemicals that could be used in terrorism against agriculture, February 2000.
 28. *Invited External Reviewer* for RAND's National Defense Research Institute draft document entitled "A Review of the Scientific Literature as It Pertains to Gulf War Illnesses, Volume VIII: Pesticides" April 2000. One of three external reviewers chosen from the United States.
 29. *Advisor to Consolidated Edison* (ConEd of New York) on employee exposure to mercury, January 2001.
 30. *Reviewer for the University of Alabama - Birmingham* (UAB) Deep South Center for Occupational Health and Safety Internal Grant Program, May 2001.
 31. *Reviewer for CRC Press/Lewis Publishers*, Boca Raton, FL for book proposal related to environmental toxicology, July 2001.
 32. *Board of Directors* (representing AIHA), Accreditation Board for Engineering and Technology (ABET), 2002-2004.
 33. *Reviewer for U.S. Army's SERDA Grants Program*, May 2003.
 34. *Reviewer for South Carolina Sea Grant Consortium Sea Grant Program*, August 2003.
 35. *Session Arranger*, Soil Toxicology and Risk Assessment, Society of Environmental Toxicology and Chemistry 24th Annual Meeting, Austin, TX, November 11, 2003.
 36. *ASAC Commissioner*, Accreditation Board for Engineering and Technology (ABET), 2004-present.
 37. *External Peer Reviewer*, National Center for Environmental Health, Agency for Toxic Substances and Disease Registry. 2005.
 38. *External Peer Reviewer*, National Center for Environmental Health, Agency for Toxic Substances and Disease Registry. 2006.
 39. *Reviewer for U.S. Army's SERDA Grants Program*, May 2006.

◆ **State and Local Community Relations**

1. *Treasurer*, Georgia Section of the American Industrial Hygiene Association, 1981 - 1982.
2. *President*, Georgia Section of the American Industrial Hygiene Association, 1983 - 1984.
3. *Judge*, Georgia Science Fair, March 1994.
4. *Advisor to Louisiana Pacific* (Jefferson, GA) on airborne formaldehyde issues.
5. *Judge*, Georgia Science Fair, March 1995.
6. *Advisor to Hart Electric Membership Coop* on occupational exposures, December 1995.
7. *Advisor to Carpet and Rug Institute* (Dalton, GA) on human health effects from emissions from carpets, 1996-1998.

8. *Advisor to Athens/Clarke County Parks and Recreation Board* on mercury exposure issues related to renovating a gym. December 1997.
9. *President-Elect*, Georgia Section of the American Industrial Hygiene Association, 1997 - 1998.
10. *Session Arranger*, Health Effects Session, 1998 University System of Georgia Research Symposium, Atlanta, GA, May 13-14, 1998.
11. *Advisor to Gwinnett County*, GA on human health effects associated with use of ozone in waste water treatment, Fall 1998.
12. *President*, Georgia Section of the American Industrial Hygiene Association, 1998 - 1999.
13. *Advisor to Chemical Products* (Cartersville, GA) on barium toxicity issues and prepared a recommended oral reference dose (RfD) value, 1998-1999.
14. *Advisor to Gold Kist* (Athens, GA) on employee particulate exposures in their Athens Poultry Processing facility, 1999.
15. *Advisor to DeKalb County*, GA on human health effects associated with use of ozone in waste water treatment, Fall 1998.
16. *Session Arranger - Industrial Hygiene Session*, Georgia ASSE/AIHA Professional Development Conference, Augusta, GA, May 8-9, 2000.
17. *Advisor to Gwinnett County*, GA on worker exposure issues related to the use of ozone in water treatment, 2001.
18. *Advisor to Walton EMC*, Monroe, GA on worker exposure issues, 2002.
19. *Advisor to Avigenics*, Athens, GA on worker exposure issues, 2003.

3.5 OTHER SERVICE

◆ Departmental Level

1. *Search Committee* for New EHS Faculty Member, resulted in the hiring of Dr. Mary Alice Smith, Fall 1993.
2. *Chairperson*, Search Committee for New EHS Faculty Member in Aquatic Toxicology, resulted in the hiring of Dr. Marsha Black, Fall 1994.
3. *Departmental Graduate Committee*, 1994 - Present.
4. *Search Committee* for New EHS Faculty Member, resulted in the hiring of Dr. David MacIntosh, Spring 1996.
5. *Graduate Coordinator*, EHS Graduate Program, 1996 - Present.
6. *Search Committee* for EHS Department Head, 1999.
9. *Chairperson*, Search Committee for New EHS Faculty Member in Epidemiology, resulted in hiring of Dr. Luke Naehar, Summer 2000.

◆ College Level

1. *Undergraduate Affairs Committee*, College of Agricultural and Environmental Sciences, 1994 - 1996.
2. *Facilities Committee*, College of Agricultural and Environmental Sciences, Fall 1994 - 1996.
3. *Strategic Planning Task Force*, Issue on Integration of Environment into the College, College of Agricultural and Environmental Sciences. April 1996 - July 1996.
4. *Environmental Literacy Committee*, College of Agricultural and Environmental Sciences. October 1996 - 1997.
5. *Graduate Committee*, College of Agricultural and Environmental Sciences, 1997 - 2000.

6. *Unity Tour Committee*, College of Agricultural and Environmental Sciences, 1998&1999.
7. *Promotion/Tenure Committee*, College of Agricultural and Environmental Sciences, 2001-2004.

◆ **University Level**

1. *Steering Committee*, UGA Interdisciplinary Toxicology Program, 1995 - 2006.
2. *University Review Committee* for Department of Avian Medicine, College of Veterinary Medicine, 1998-1999.
3. *Chairman*, Biomedical Sciences & Health Initiative Task Group on Community and Public Health, 1999 to 2001.
4. *Graduate Affairs Committee*, UGA Interdisciplinary Toxicology Program, 1999 - 2004.
5. Search Committee, University of Georgia Health Services Director, 2004.
5. *Health and Clinical Sciences Committee*, Graduate School, 2004 – 2005.
6. Search Committee, Vice President for Research and Associate Provost, 2005.
7. *University Review Committee* for UGA Grady College of Journalism and Mass Communication, Fall 2006.

◆ **Service to Other Universities**

1. *Member, Advisory Council* for the Department of Environmental and Occupational Health, Rollins School of Public Health, Emory University, 1990 - 1994.
2. *Advisor to Alabama State University* (historically minority institution) for the development of a Ph.D. degree program in Environmental Sciences. Prepared an assessment of their needs and testified on their behalf to the Alabama Commission on Higher Education (ACHE) and a court-appointed review commission. 1997 - 2000.