

## **ROGER D. LEWIS, PhD, CIH, FAIHA**

**Saint Louis University College for Public Health and Social Justice**

**3545 Lafayette Ave., St. Louis, Mo. 63104-1399**

**314-977-8151; lewisrd@slu.edu**

### **EDUCATION**

Ph.D. Environmental Health Science, The Johns Hopkins University, School of Hygiene and Public Health, Baltimore, Maryland, PhD, 1995; M.S., Industrial Hygiene, Central Missouri State University, Warrensburg, Missouri, 1980; B.S., Cell Biology, University of Kansas, Lawrence, Kansas 1976; Biochemistry, Tulane University, New Orleans, Louisiana, 1972-1974.

### **SPECIALTY STATUS**

Fellow, American Industrial Hygiene, elected 2015

Board Certified in the Comprehensive Practice of Industrial Hygiene, American Board of Industrial Hygiene, 1985  
Diplomate, American Academy of Industrial Hygiene, 1985.

### **CURRENT POSITION**

**2015 to present**    **Professor, Department of Environmental and Occupational Health** (duties from 2013 and below)

**2011-2015**        **Chariman, Department of Environmental and Occupational Health** - Manage the activity of ten full-time faculty and three full time staff in the Department. The Department includes faculty and staff engaged in a full complement of environmental and occupational health research, educational programs, continuing education, and service both locally and around the world. The Department consists of three units, the Institute of Biosecurity and Disaster Preparedness, the Center for Environmental Education and Training, and the Environmental Health Research Laboratory. Students are trained at the Master and Doctoral level. Emergency Management students are trained at the undergraduate level.

**2008-2011**        **Division Director** – Academic director for Master’s of Public Health and PhD programs in Environmental Health and Environmental Epidemiology, September, 2008.

**2013**              **Professor (tenured)** – Duties described below:

**1997 to present**    **Founder and Director of the Environmental Health Research Laboratory** Investigations at the Environmental Health Laboratory emphasize characterizing sources, pathways, and controls for environmental contaminants that may lead to allergies, asthma, lead poisoning, and waterborne diseases that primarily affect children. Funding since 1997 exceeds \$4,500,000 and includes more than four doctoral students.

**2001-2004**        **Workers Institute for Safety and Health, Director** - The Institute, a collaborative effort of Saint Louis University School of Public Health, the University of Missouri Extension programs, and the Missouri AFL-CIO Foundation, provided training and technical assistance in occupational safety and health to over 5,000 workers in high hazard industries and small business employers and their employees through out Missouri, eastern Kansas, and southern Illinois. The Institute was supported from corporate gifts, private donations, and research funding and was initially supported by funding from the U.S. Occupational Safety and Health Administration.

**1994 -2012**      **Assistant Professor, Associate Professor, Saint Louis University , School of Public Health, Environmental and Occupational Health Science, St. Louis, Mo.** Develops and teaches coursework in occupational health and safety, environmental health, exposure assessment, and control of infectious disease. Research interests are in exposure assessment methodology, especially indoor air quality, environmental allergies, allergen retention and microbial growth on textiles, surface sampling, and lead contamination-surface cleaning. Provides consultation in environmental health and industrial hygiene.

## **PUBLICATIONS (Government documents)**

Lewis, R.D., The removal of lead contaminated house dust from carpets and upholstery, U.S. HUD, Office of Lead and Healthy Homes, Washington, D.C. January 2002, Cooperative agreement MOHR0027-97.

## **PUBLICATIONS (Book chapters or monographs)**

Lewis, R.D, and Chen, Daren: Indoor Allergen Surface Sampling Methods and Standards: A Review of the Theory and the Practice, and Lewis, R.D, Kennedy, J, Andruskiewicz, M., Brown, C.A., Condoor, S: Surface Characterization of Replicate Wood Surfaces for Cleaning Studies in *Surface and Dermal Sampling*, 309 pages, 2011, STP 1533, D22, 978-0-8031-8894-5.

## **PUBLICATIONS (peer reviewed)**

Nelson, E, Schacham, E, Boutwell, B, Rosenfeld, R, Schootman, M, Vaughn, M, Lewis, R.D. “Childhood Lead Exposure and Sexually Transmitted Infections: New Evidence. *Environmental Research*, November, 2015.

Ong K, Emo B, Lewis RD, Kennedy J, Thummalakunta L, Elliott M. “Inactivation of Mold Spores from Moist Carpet Using Steam Vapor: Contact Time and Temperature.” *Journal of Occupational and Environmental Hygiene*. Vol 12, No. 8, D131-D136, July, 2015

Ong, Kee-Hean; Dixit, Anupma; Lewis, Roger; MacDonald, Maureen; Backer, Denis; Condoor, Sridhar; Emo, Brett; Yang, Mingan: Mold Management of Wetted Carpet, *Journal of Environmental and Occupational Hygiene*, May, 2014

Ong, K.H., Lewis, RD., Dixit, A., MacDonald, M., Yang, M., Qian, Z.: Inactivation of Dust Mites, Dust Mite Allergen, and Mold from Carpet, *Journal of Occupational and Environmental Hygiene*.. Vol 11, No. 8, June, 2014. *American Industrial Hygiene Association’s Lila Albin Award for Best Indoor Environmental Quality Research Paper of 2014, awarded June 2015, Salt Lake City, Utah.*

Passman, S.D., White, T.J., Lewis, R.D.: Point-of-Use Water Filtration for Arsenic: A Sustainable and Simple Solution in Resource –Poor Settings. *International Journal for Service and Learning in Engineering*, Vol 9, No. 1, 79-91, Spring, 2014.

Dong, GH., Qian, Z., Liu MM, Wang, D., Ren, WH., Bawsa, S., Fu, Q., Wang, J., Lewis, R., Zelicoff, A., Simckes, M., Trevathan, E.: Breastfeeding decreases the respiratory health effects of air pollution in Chinese children: the Seven Northeastern Cities (SNEC) Study. *Epidemiology*, 24:387-394, 2013.

Lewis, R.D., Ong, K.H., Emo, B., Kennedy, J., Brown, C., Condoor, S., Thummalakunta, L: Do New Wipe Materials Outperform Traditional Lead Dust Cleaning Methods? *Journal of Occupational and Environmental Hygiene*, August, 2012

Lewis, R.D, and Chen, Daren: Indoor Allergen Surface Sampling Methods and Standards: A Review of the Theory and the Practice, *Journal of ASTM International*, Volume 8, No. 6, June, 2011

Lewis, R.D, Kennedy, J, Andruskiewicz, M., Brown, C.A., Condoor, S: Surface Characterization of Replicate Wood Surfaces for Cleaning Studies, *Journal of ASTM International*, Volume. 8, No 10., November, 2011

Causser, M; Piper, C; Shorter, C.; and Lewis, R.D: Replicating the Cross-Sectional Distribution of House-Dust mite Allergen Found in Carpet. *Journal of the Textile Research Institute*, July 24, 2008.

Causser, M; Shorter, C; Lewis, R.D.; and Siebers, RW: Effect of Vacuuming for the Removal of Cat Allergen (Fel D1) from Worn and Unworn Wool Carpets of Different Construction. *Journal of Textile Research*, in press 2007.

- Lewis, R.D, Condoor, S., Batek, J., Ong, K., Backer, D., Sterling, D., Siria, J., and Ashley, P: Removal of Lead Contaminated Dusts from Hard Surfaces. *Environmental Science and Technology* , 40: 590-594. 2006.
- Lewis, R and Caser, S.: Retention and Removal of House Dust Contaminants from Carpet: Integrating our Knowledge of Source Dusts, Carpet Properties, and Carpet Cleaning for a Healthier Indoor Environment, *International E-Journal of Flooring Sciences (Vol 1) Premier Edition, 2004*
- Simon, C. and Lewis, R.: Influence of Wear, Pile Height, and Cleaning Method on Removal of Mite Allergen from Carpet, Vol 1 (4) April, 2004 *Journal of Occupational and Environmental Hygiene*.
- Lewis, R.D and Breyse, P.: Carpet Properties that Affect the Retention of Cat Allergen. *Annals of Allergy, Asthma, and Immunology* 84: 31-36. 2000
- Lewis, R.D., Breyse, P., Sterling, D.A., King, B.: A Soiling System for Evaluation of House Dust, Allergens, and Lead Retention on Carpets and Other Surfaces. *Applied Occupational and Environmental Hygiene*. 14 (12): 845-851. 1999
- Lewis, R.D., Sterling, D.A., King, B., Hendershott, L., Goodgold, H., Hutcheson, P.: Evidence of Large Particle Allergen Inhalation from Contact with Surfaces. *Annals of Allergy, Asthma, and Immunology*. 83 (1):41-48. 1999
- Lewis, R.D., Feir, D., Roegner, K., Nayan, A., Vortriede, S.: Investigation of Bites and Itching in a Word Processing Department. *American Industrial Hygiene Association Journal*. 60: 310-316. 1999
- Lewis, R.D., Breyse, P., Lees, P.S.J., Diener-West, M., Hamilton, R. and Eggleston, P.: Factors Affecting the Retention of Dust Mite Allergen on Carpet. *American Industrial Hygiene Association Journal*. 59:606-613, 1998.  
*American Industrial Hygiene Association's Best Indoor Environmental Quality Research Paper of 1998, awarded June 6, 1999, Toronto, Canada.*
- Lewis, R.D. and P. Breyse: A Comparison of the Sampling Characteristics of Two Vacuum Surface Samples for the Collection of Dust Mite Allergen. *Applied Occupational and Environmental Hygiene*. 13:536-541, 1998
- Sterling, D.A., Lewis, R.D., Serrano, F., Dugbately, K., Evans, R.G., Sterling, L.S.: Lead Abatement Training for Underserved Populations. *Applied Occupational and Environmental Hygiene*. 15 (2):217-227, 2000
- Sterling, D.A., Lewis, R.D.: Pollen and Fungal Spores Indoor and Outdoor of Mobile Homes. *Annals of Allergy, Asthma, and Immunology*. 80:279-285, 1998.
- Sterling, D.A., Roegner, K.C., Lewis, R.D., Luke, D.A., Wilder, L.C., Burchette, S.M.: Evaluation of Four Sampling Methods for Determining Exposure of Children to Lead Contaminated Household Dust. *Environmental Research*. 80(2):130-141. 1999. 14 (12): 845-851. 1999 (accepted March 1999).
- Sterling D.A., Lewis, R.D., Luke, D.A., Shadel, B.N.: Use of a Portable XRF Instrument for Analysis of Household Dust-Wipes for Lead: Evaluation of Field Samples. *Environmental Research*. 83(2):174-179 2000
- Hawkins, N. S. Norwood, J. Rock eds., *A Strategy for Occupational Exposure Assessment*. R. Lewis (Co-author of consensus document and member of AIHA Exposure Assessment Strategies Committee), Akron, OH., American Industrial Hygiene Association, 1992.

## SELECTED SCIENTIFIC SOCIETY PRESENTATIONS

- Lewis, R.D, Emo, B., Kennedy, J, Wang, M.: A Field Study on the Growth and Removal of Microorganisms and Allergens on Carpet, AIHA conference, Portland, Oregon, May, 2011
- Lewis, R.D, and Chen, Daren: Indoor Allergen Surface Sampling Methods and Standards: A Review of the Theory and the Practice, ASTM D-22 Symposium on Surface and Dermal Sampling, San Antonio, TX. October, 2010
- Lewis, R.D, Kennedy, J, Andruskiewicz, M., Brown, C.A., Condoor, S: Surface Characterization of Replicate Wood Surfaces for Cleaning Studies, ASTM D-22 Symposium on Surface and Dermal Sampling, San Antonio, TX. October, 2010

Lewis, R.D., King, C., and Serrano, F.: "Response to Waterborne Disease after Hurricane Mitch in Honduras: Barriers and Possible Solutions" Poster presented at the 2002 ASPH Environmental Health Conference, Responding to a New Environment, Emergency Response at Schools of Public Health., Pittsburgh, Pa. September 8-10, 2002

Lewis, RD; Sterling, D; Condoor, S.; Batek, J; Bernhart, A; Ong, K.: "The Removal of Leaded Dust from Carpets and Upholstery". Paper presented at the 2000 National Lead Grantee Conference, Eliminating Childhood Lead Poisoning, Atlanta, Ga., December 13, 2000.

Lewis, R.D., Nweke, O., Sterling, D., Siria, J., Long, S.: "A Method for the Recovery of Lead from Carpets". Paper presented at the American Industrial Hygiene Conference, Orlando, Florida, May 24, 2,000

Lewis, R.D., Sterling, D.A., King, B., Hendershott, L., Goodgold, H., Hutcheson, P.: Evidence of Large Particle Allergen Inhalation from Contact with Surfaces. A poster presented at the International Society of Exposure Analysis/International Society of Environmental Epidemiology. September 7, 1999. Athens, Greece.

Lewis, R.D. "Challenges in Indoor Air Quality". Invited lecture. Washington University Department of Environmental Engineering seminar series, St. Louis, Mo., November 20, 1998

Lewis, R.D. "Indoor Allergens and Textiles". Invited lecture. AIHA local section St. Louis, Mo. professional development conference on Indoor Air Quality and Bioaerosols. November, 1997.

Lewis, R.D., Feir, D., Roegner, K., Nayan, A., Vordtriede, S.: "Investigation of Bites and Itching in a Word Processing Department." Paper presented at the American Industrial Hygiene Conference, Dallas, TX., May 1997.

Lewis, R.D., Breysee, P.N., Hamilton, R.G., et al.: "Retention of Dust Mite Allergen on Carpeted Surfaces." Paper presented at the American Industrial Hygiene Conference, Kansas City, MO., May, 1995.

Lewis, R.D., Breyse, P.N., Hamilton, R.G.: "A Carpet Doping System for Evaluating the Retention of Dust Mite Allergens on Tufted Carpets." Paper presented at the American Industrial Hygiene Conference, New Orleans, La., May 1993.

Lewis, R.D., Gottfried, G., Richardson, K., Held, B., Moir, A.: "Methane Gas Monitoring and Safety Program at Land Filled Construction Site." Paper presented at the American Industrial Hygiene Conference, Orlando, FL., May 1990.

Lewis, R.D.: "Sampling Strategies from Atmospheric, Surface Water, and Groundwater Exposure Assessments: What can the Industrial Hygienist Borrow from and Contribute to these other Disciplines?" Paper presented at the British Occupational Hygiene Society, University of Nottingham, Nottingham, United Kingdom, April 1988.

Sterling, DA., Lewis, RD., Luke, DA. "Evaluation of Four Sampling Methods for Determining Exposure of Children to Lead Contaminated Household Dust. Poster presented at Indoor Air 99: The 8<sup>th</sup> International Conference on Indoor Air Quality and Climate, August 8-13, 1999, Edinburgh, Scotland.

Sterling, DA., Roegner, KC., Lewis, RD., Luke, DA., Wilder, LC., Burhette, SM. "Use of a Portable XRF Instrument for Analysis of Household Dust-Wipes for Lead: Evaluation of Field Samples. Poster presented at Indoor Air 99: The 8<sup>th</sup> International Conference on Indoor Air Quality and Climate, August 8-13, 1999, Edinburgh, Scotland.

Ghandi, R., Lewis, R.D., Dixit, A., Slavin, R. Wedner, H.G.: "Assaying Inhalable Allergen Exposures using a Mini-Cascade Impactor." Poster presented at the American Academy of Allergy and Immunology, New Orleans, LA., March 1996.

Manekshaw, S.J.H., Williams, C.H., Lewis, R.D.: "Ambient Air Monitoring Around Refineries for Select Section 313 Chemicals." Paper presented at the Air Pollution Control Association (Specialty Conference), Philadelphia, PA., April 1989.

Gottfried, G., Lewis, R.D., Yarko, J., Olinger, C., Morin, C.: "A Pilot Study to Develop a Method for Sampling and Analysis of Middle Distillate Fuels and Petroleum Solvents." Paper presented at the American Industrial Hygiene Conference, San Francisco, CA., May 1988.

## **PRINCIPAL INVESTIGATOR (Research and Training)**

A Community Survey of Respiratory Health Around the Westlake/Bridgeton Landfills in St. Louis County, Missouri: Critical Reviews and Collaboration, February 1- October 31, 2016, St. Louis County Health Department, \$41,453

Contract for Graduate Student Evaluation of a Public Health Program: Lead Safe St. Louis, January 2011-February 2011, City of St. Louis Department of Health \$25,000

Application of chemifluorescent methods for quantification of household lead, October, 2008-December, 2010, U.S. Department of Housing and Urban Development \$390,000.

Development of a Business Model for the Implementation of a Sustainable Point of Use Water Filter Program in the Dominican Republic, January 2008- December 2008, National Collegiate Inventors and Innovators Alliance, \$50,000.

Targeted Program in Lead Poisoning for St. Louis, Missouri: A pilot model to predict risk of lead exposure in housing with cost of remediation, November 2007-October 2010, U.S. Department of Housing and Urban Development \$530,000

Effect of Flooring Materials on House Dust Resuspension, Carpet and Rug Institute, January 2006 –May -2007 \$220,000

Fluorogenic Methods for Detection of Leaded Dust on Surfaces U.S. Department of Housing and Urban Development 2006-2008 \$480,000

A Field Study on the Growth and Removal of Microorganisms and Allergens on Carpet, U.S. Department of Housing and Urban Development 2006-2009, \$500,000

Evaluation of New Technologies for Removal of Lead from Hard Surfaces, U.S. Department of Housing and Urban Development 2005-2006, \$197,000

Applied Vacuuming Studies and Mold Management on Carpet, Carpet and Rug Institute, 2004-2005, \$230,000

The Growth and Removal of Microorganisms and Allergens from Carpet, U.S. Department of Housing and Urban Development, 2003-2006, \$700,000

Workers Institute for Safety and Health, ergonomics training grant renewable to two years, U. S. Department of Labor, 2002, \$219,000

Workers Institute for Safety and Health, ergonomics training grant renewable to two years, U. S. Department of Labor, 2001, \$292,000

The Removal of Lead Contaminated Dust from Carpets and Upholstery, Laboratory Method Refinement and Field Validation, U.S. Department of Housing and Urban Development, 1999-2000, \$99,000

The Removal of Lead Contaminated Dust from Hard Surfaces; efficacy of detergents in removal of lead from linoleum, wood, and dry-wall surfaces, U.S. Department of Housing and Urban Development, 1999-2002, \$343,000

The Removal of Lead Contaminated Dust from Carpets and Upholstery, U.S. Department of Housing and Urban Development, 1997-1999, \$149,000.

Extension in scope to the Removal of Lead Contaminated Dust from Carpets and Upholstery, U.S. Department of Housing and Urban Development, 1998-1999, \$56,000.

A Preliminary Investigation of the Growth of Dust Mites on Carpet. Beaumont Fund, Saint Louis University, 1996-1997. \$3,000.

## **PROCUREMENT OF OTHER FUNDS**

Student Fellowships in Industrial Hygiene at Saint Louis University School of Public Health, Ethyl Petroleum Company, Sauget, IL. 1995-1997. \$50,000.

Student Fellowships in Industrial Hygiene at Saint Louis University School of Public Health, Clark Oil Company, Wood River, IL. 1999. \$7,000.

## **CO-INVESTIGATOR RESEARCH GRANTS AND CONTRACTS**

Co-Investigator and Assistant Director, Equity Based Training Grant, U.S. Environmental Protection Agency, 1995-1997. Training under/unemployed individual's from minority communities in lead worker, supervisor, and inspector courses. Evaluation of recruitment, training, and employment success. \$190,000.

## **PRINCIPAL INVESTIGATOR (other research)**

Principal Investigator for pilot study of two portable water filtration units, chlorinated and biofilm acting disinfection, in forty families in Olancho, Honduras, Sponsored by Diocese of Olancho, Honduras, the Puleo foundation, and Saint Louis University 2000-

## **TEACHING, MENTORING, AND OTHER HONORS**

Adviser to students for best poster, Saint Louis University Graduate Research Symposium on filtration of arsenic from water, 2013  
Adviser to students for award from Social Concerns Committee AIHA for study on filtration of arsenic from water, June, 2013  
Certificate of Appreciation for Radnet (air sampling for radiation in St. Louis) participation following Fukushima nuclear accident, EPA, September, 2011  
Advisor to student for Best Student Poster on Laboratory Chemistry, AIHA Conference, Toronto, 2009  
Advisor to student for Best Student Poster on Ergonomics, AIHA Conference, Minneapolis, 2008  
Advisor to students for Best Engineering Student Poster, American Industrial Hygiene Conference, Philadelphia, PA. May, 2007  
Award for most research grants by an Associate Professor, 2006, Saint Louis University School of Public Health  
Award for Best Indoor Air Quality Research Paper of 1998, American Industrial Hygiene Association; Indoor Environmental Quality Committee  
Diploma of appreciation for teaching excellence in "Calidad de Agua Potable", Republica de Honduras, Secretaria de Salud, Juticalpa, Olancho, Honduras, May 5, 1999  
Environmental Health Department Scholarship, The Johns Hopkins University, School of Public Health, 1993-1994.

## **COURSES DEVELOPED AND TAUGHT**

### *Academic*

Control of Infectious Disease: Assessment and Control of Biological Agents *revised to* Biological Hazards in Modern and Developing Countries 1995-present.

Risk Communication 1995-2000.

Management and Control of Environmental and Occupational Health Hazards 1995-2000

Laboratory in Environmental and Occupational Health 2000-2009

Cases in Environmental and Occupational Health *revised to* Capstone in Environmental and Occupational Health 2000-present

### *Continuing Education*

Developed classes and taught on sampling, radiation safety, personal protection equipment, hazard screening, and sampling strategy for Lead inspectors, Lead Risk Assessors, Lead Supervisors, Lead Workers. St. Louis, Mo. 1995-present.

Indoor Air Quality for Real Estate Agents, Saint Louis, Mo. May, 1998.

Fundamentals of Industrial Hygiene, AIHA, St. Louis, MO. November, 1995

Fundamentals of Industrial Hygiene, AIHA , UAW, Blacklake, Michigan, March, 1997

Instructor in professional development course (AIHA) on exposure assessment, 1991.

## **PROFESSIONAL CONSULTATIONS CONDUCTED FROM 1995-PRESENT**

Litigation support on cleaning and disinfection chemicals and processes in the food industry, 2015

Litigation support on diacetyl and flavoings, 2014

Litigation support for flooring chemicals and health, 2013

Litigation support on worker exposure to lime dust, 2014

Litigation support on mold exposure assessment, hot water exposures, and autoclave residues 2005-2012 .

Research on litigation support on exposures in a steel foundry, June, 2000

The Use of Ozone as an Indoor Air Biocide: Implications for the Indoor Air Services Industry. Submitted to Perfectsolutions, International, Inc., Springfield, MO. November 1995.

Bites and Itching in a Word Processing Department. Submitted to a municipal agency in St. Louis, MO. July, 1996.

## **EXPERT WITNESS CONSULTING (SINCE 2012)**

Pitzer-Snodgrass, St.Louis  
Copeland Thompson Ferris, Clayton  
Holland and Hart, St Louis metro  
Strellis and Field, Waterloo, Ill  
Tom Burcham, Farmington, Illinois  
Bowman Brookes, Minneapolis, MN

## **EXPERT CONTRACTING STATUS**

Expert contractor in operations safety by Oak Ridge Associated Universities (DOE) Technical Assistance Program, 1989-1992.

## **TECHNICAL REVIEWS or GUIDELINE PREPARATION**

Reviewer, Intramural research proposal, NIOSH, 2015

Reviewer, Alice Hamilton Award for Best Research Paper, Intramural Research in National Institute of Occupational Health and Safety (NIOSH), 2015

Chairman, Operational Assessment of Department of Environmental and Occupational Health, University of North Texas Health Science Center, November, 2013

Reviewer, Internal Grant Review Process-Presidential Grants at Saint Louis University

Reviewer, Internal Grant Review Process, College for Public Health and Social Justice

Reviewer, Surface and Dermal Sampling Symposium, ASTM D22, 2010

Reviewer, Global Environmental Health, Research Gaps and Barriers for Providing Sustainable Water, Sanitation, and Hygiene Services, Workshop Summary, National Academies of Science Press, 2009

Contributor, Pandemic Guidelines for the Industrial Hygienist, 2006

Reviewer, Applied Occupational and Environmental Hygiene, 2000 -

Reviewer, American Industrial Hygiene Association Journal 1999-

Reviewer, Center for Indoor Air Research, Linthicum, Md. 1997-1999

Reviewer, CDC/ASPH fellowships. 1997-1998

Reviewer, EPA Exposure Measurement Guidelines, May, 1988.

## **THESIS MENTOR or READER**

Doctoral thesis mentor for Brett Emo, Application of Chemical Fluorescence Analytical Methods and Extraction Chromatography Purification to Environmental Lead Detection, April, 2011

Doctoral thesis mentor for Kee Hean Ong, “Mold Management on Carpet”, 2008, Doctor of Philosophy, Saint Louis University School of Public Health.

Thesis reader and committee member for Laura Puzniak, Doctor of Philosophy in Health Services Research, 2002. Saint Louis University. “Vancomycin-resistant Enterococcus Acquisition”.

Thesis reader and committee member for David Malewski, Master of Science in Biology, 1999. Saint Louis University. “Serosurveys of Missouri Dogs Comparing Immunoglobulin G Antibody Reactions to Six Strains of Borrelia species Spirochetes”

## **PROFESSIONAL BOARD MEMBERSHIPS**

City of St. Louis Board of Health (unofficial prior to swearing in), March, 2015-

## **MEMBERSHIPS**

American Industrial Hygiene Association (AIHA), 1980-  
Industrial Hygiene Academic Programs, AIHA, 1996-  
Biosafety and Environmental Microbiology, AIHA, 2013-  
Aerosol Technology Committee, AIHA, 1996-1999  
Research Task Force of American Industrial Hygiene Association, 1998-2001  
American Academy of Industrial Hygiene, 1985-  
ASTM D-22 Committee on Indoor Air Quality- Surface and Dermal Sampling 2010-2014  
American Conference of Governmental Industrial Hygienists, 2013-2015

## **OFFICER POSITIONS ON NATIONAL OR REGIONAL COMMITTEES**

Chair, Academic Interest Group, American Industrial Hygiene Association 2014-2016  
Secretary, Academic Interest Group, American Industrial Hygiene Association, May 2012-  
Chairman, Research Task Force of American Industrial Hygiene Association, December 1998- 2000  
Co-Chairman, Occupational Safety and Health Worker’s Memorial Conference, May 1, 2001; April 28, 2000; joint effort between St. Louis AFL-CIO Labor Council, University of Missouri, and Saint Louis University School of Public Health  
Founded AIHA Aeroaol Committee’s David Swift Award for Best Paper, 1999  
Secretary, AIHA’s Exposure Assessment Strategies Committee, 1987-1988.

## **UNIVERSITY AND SCHOOL COMMITEES**

Ad hoc Judicial Committee of the Faculty Senate 2008-  
School of Public Health Promotion and Tenure Committee 2008-2014  
College for Public Health and Social Justice Leadership Committee 2010-2015  
School of Public Health Doctoral Committee 2010-2014  
School of Public Health, Faculty and Staff Committee 2000-2001  
School of Public Health, Academic Affairs Committee 1996-1997  
School of Public Health, Research Committee 1998-1999, 2012-  
Co-Chair, Faculty Senate, climate evaluation of the university, 2012-2013  
Faculty Senate (elected to University faculty senate, 1997, term runs to 2000)  
Co-Chairman, Faculty Senate committee on Faculty and Student Development, 1998-2000

## **PROFESSIONAL EXPERIENCE**



- 1991 to 1994**      **Roger D. Lewis Consulting Services and The Johns Hopkins University, School of Hygiene and Public Health, Baltimore, Maryland.** Primary consulting contract was with Bell Atlantic, Arlington, Va. Provided comprehensive industrial hygiene and environmental services including development of exposure assessment programs. Dissertation research at Johns Hopkins focused on fiber and construction properties of carpet that affect the retention of aeroallergens.
- 1989 to 1991**      **Senior Industrial Hygienist, Apex Environmental, Inc. Rockville, Maryland.** Performed managerial, technical, and business development activities at environmental consulting firm. Led team including CIH, MS-IHs, MS-toxicologist, and engineers on a variety of technical tasks including statistical sampling strategies, risk and exposure assessment, ambient pollution monitoring and modeling, waste site safety, ELF radiation monitoring and shielding, and occupational safety and health. Negotiated safety/environmental protocol with top city officials during construction of a multimillion dollar facility in New York City. Contract auditor for FDA, NIH and Department of State OSH programs.
- 1988 to 1989**      **Roger D. Lewis Consulting Services and The Johns Hopkins University, School of Hygiene and Public Health, Baltimore, Maryland.** Occupational and environmental health consulting (expertise cited above). Research technician on Electric Power Research Institute contract (EPRI) involved exposure assessment of electromagnetic fields on telephone line workers.
- 1984 to 1988**      **Regulatory Analyst and Research Industrial Hygienist, American Petroleum Institute, Washington, DC.** Coordinated industry response to OSHA and EPA regulatory initiatives and provided technical assistance to staff attorneys for API publications, testimony, and litigation. Facilitated discussion and debate on complex health and safety issues with over 15 corporate industrial hygiene and safety managers representing the major oil companies. Managed industrial hygiene research projects including human exposure assessment of gasoline, benzene, fuels, and solvents. Developed protocols for air sampling methods, exposure models, software for evaluating workplace compliance, and retrospective epidemiology. Served as technical liaison with British Petroleum Institute and Australian Petroleum Industry.
- 1980 to 1983**      **Instructor, University of Missouri, Labor Education Faculty, Columbia, Missouri.** Developed and taught classes on all aspects of occupational and environmental hazards and controls to trade union employees in aircraft, steel, grain and milling, and construction industries. Worked closely with representatives from the industrial sector and building and trades council of the AFL-CIO. Also provided consultation to hospitals and manufacturing institutions.
- 1977 to 1978**      **Loss Control Engineer, Hartford Insurance Group, Kansas City, Missouri.** Conducted fire, safety and health inspections of manufacturing facilities.
- 1972 to 1976**      **Research Assistant, Microbial Genetics, Microbiology Department, University of Kansas Medical Center, Kansas City, Kansas;** Research Assistant, Microbiology and Entomology Department, University of Kansas, Lawrence Kansas.