

# Jefferey Lloyd Burgess

## Curriculum Vitae

Division of Community, Environment and Policy  
Mel and Enid Zuckerman College of Public Health  
University of Arizona  
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### Chronology of Education

Dartmouth College, Hanover, New Hampshire	1979 - 1983
A.B. in Biology 1983 - Magna Cum Laude	
University of Washington School of Medicine, Seattle, Washington	1984 - 1988
M.D. 1988 - Honors	
University of Arizona, Tucson, Arizona	1991 - 1993
M.S. in Toxicology, Concentration in Industrial Hygiene, 1993	
University of Washington, Seattle, Washington	1994 - 1996
Department of Environmental Health, School of Public Health and Community Medicine	
M.P.H. 1996	

### Postgraduate Training

University of Arizona, Tucson, Arizona	1988 - 1991
Internship and Residency in Emergency Medicine	
University of Arizona, Tucson, Arizona	1991 - 1993
Clinical Toxicology Fellowship	
University of Washington, Seattle, Washington	1994 - 1995
Occupational and Environmental Medicine Fellowship	

### Chronology of Employment

Emergency Medicine Attending Physician	
El Dorado Hospital, Tucson, Arizona	1991 - 1992
Tucson Medical Center, Tucson, Arizona	1991 - 1993
Northwest Hospital, Tucson, Arizona	1992 - 1993
Carondelet St. Joseph's Hospital, Tucson, Arizona	1992 - 1993
Group Health Cooperative of Puget Sound, Seattle, Washington	1994
Associate Medical Director, Environmental and Occupational Toxicology	1993 - 2009
Washington Poison Center, Seattle, Washington	
Acting Assistant Professor, Occupational & Environmental Medicine Program	1995 - 1997
University of Washington, Seattle, Washington	
Assistant Professor, University of Arizona	1997 - 2002
Associate Professor, University of Arizona	2002 - 2009
Full Professor, University of Arizona	2009 - present
Mel and Enid Zuckerman College of Public Health, Tucson, AZ	

Guest Researcher, Analytical Studies Branch, Health Effects Laboratory Division May-July 2003  
National Institute for Occupational Safety and Health, Morgantown, WV

Guest Researcher, Spokane Research Laboratory August-October 2003  
National Institute for Occupational Safety and Health, Spokane, WA

Visiting Fellow, Minerals Industry Safety and Health Centre (MISHC) October-December 2003  
University of Queensland, Brisbane, Australia

Director, Division of Environmental and Community Health 2004 - 2006

Director, Division of Community, Environment and Policy 2006 - present  
Mel and Enid Zuckerman College of Public Health, Tucson, AZ

Adjunct Associate Professor, Department of Mining and Geological Engineering 2004 - 2009  
Adjunct Professor 2009 - present  
University of Arizona, Tucson, AZ

Visiting Professor, Department of Environmental and Preventive Medicine January-June 2010  
Shimane University College of Medicine, Izumo, Japan

**Honors and Awards**

Rufus Choate Scholar, Dartmouth College 1982 - 1983

Alpha Omega Alpha Medical Honors Society 1988

Fellow of the American College of Medical Toxicology 2000

Jean Spencer Felton Award for excellence in scientific writing September 16, 2005  
Western Occupational and Environmental Medical Association

Fulbright Research Scholar (Japan) 2010

Excellence in Research, Distinguished Faculty Award 2010  
Mel and Enid Zuckerman College of Public Health

University of Arizona Academic Leadership Institute participant 2011 - 2012

**Board Certification/Licensure**

American Board of Emergency Medicine 1992, recertified 2002  
Sub-Board of Medical Toxicology 1995, recertified 2004

American Board of Preventive Medicine,  
specialist in Occupational Medicine 1996 (no recertification required)

Arizona Medical License current

**Service/Outreach (since 2004)**

**Local/State Presentations**

Western Regional International Health Conference, Tucson, AZ February 1, 2004  
presenter/panelist “International Environmental Health”

Voices from Our Community Series, Tucson, AZ April 22, 2004  
presenter/panelist “The Health and Culture of Hispanic Miners in Arizona”

Community forum, Salazar-Ajo Branch Library, Ajo, AZ February 16, 2005  
“Arsenic and other environmental exposures”

Southern Arizona Childrens Advisory Center Multidisciplinary Team, July 21, 2005  
Tucson, AZ “Chemical hazards of methamphetamine laboratories”

Pima Association of Governments Air Quality Subcommittee, December 13, 2005  
Tucson, AZ “Acute Respiratory Effects of Combustion Products”

Premed Club, University of Arizona, Tucson, AZ “Physician Opportunities in Public Health”	April 4, 2006
University of Arizona Annual “HeadsUp” Retreat, Tucson, AZ “Pandemic Influenza: What We Need to Know”	August 15, 2006
Emerging Contaminants Workshop: Trace Chemical Contaminants in Water and Wastewater-Semiarid Perspectives, Phoenix, AZ “Respiratory Effects of Low-Level Arsenic Exposure in Drinking Water”	March 2, 2007
19 <sup>th</sup> Annual Phoenix Fire Department Health, Fitness & Safety Symposium Phoenix, AZ “Occupational Cancers & Exposures”	June 27, 2007
20 <sup>th</sup> Annual Phoenix Fire Department Health, Fitness & Safety Symposium	May 21, 2008
21 <sup>st</sup> Annual Phoenix Fire Department Health, Fitness & Safety Symposium Phoenix, AZ “Cancer in the Fire Service”	June 24, 2009
Institute for Mineral Resources Pathways to Sustainable Development Workshop Series, Tucson, AZ “University of Arizona Mining Health and Safety Research”	October 17, 2009
5 <sup>th</sup> Annual National Fallen Fire Fighter Benefit Dinner and Golf Tournament Firefighter Safety Seminar, Tucson, AZ “Firefighter Cardiac Study Results and Implications”	June 10, 2011
University of Arizona Steward Observatory. MMT and LBTO Health and safety session, Tucson AZ “Toxi-cans and Toxi-cants” presentation with IH student Jonathan Piakis	September 26, 2011
7 <sup>th</sup> Annual Southern Arizona National Fallen Fire Fighter Association Fire Fighter Health/Safety Seminar, Tucson, AZ “Fireground SOPs - Is there a relationship to firefighter injuries?”	June 7, 2013

## **National/International**

### **Reviewer**

External Reviewer, Southern California NIOSH Education and Research Center	2002
Reviewer, Nomination of Chemicals for Consideration for Future National Exposure Reports Centers for Disease Control and Prevention, Atlanta, GA	2003
Scientist Reviewer, NIOSH NORA Peer Review, Small NORA	2004
Manuscript Review, NIOSH	2005 - present
Reviewer, Third National Report on Exposure to Environmental Chemicals in Humans Centers for Disease Control and Prevention	2005
Reviewer, Australian Government National Health and Medical Research Council Project Grant Applications	2005
Phase I Reviewer, NIEHS Superfund Basic Research and Training Program (SBRP) RFA ES-05-001	2005
External Reviewer “Future Long Term Field Evaluation Concept for Self-Contained Self-Rescuers (SCSRs)” NIOSH National Personal Protective Technology Laboratory	2007
Project Technical Panel Member, Fire Fighter Respiratory Exposure Study The Fire Protection Research Foundation, NFPA	2007
External Reviewer “Effect of Respirator Use on Carbon Dioxide and Oxygen Levels During Light and Moderate Work Rates” NIOSH National Personal Protective Technology Laboratory	2008

External Reviewer “A Case Study in Applied Social Marketing-Developing an Occupational Safety and Health Product” NIOSH Spokane Research Lab	2008
Technical Reviewer “Mine Disaster Prevention through Major Hazard Risk Management” NIOSH	2008
External Reviewer “Habitability of Portable Mine Refuge Chambers During a Nominal 96 Hours of Confinement” NIOSH National Personal Protective Technology Laboratory	2008
Reviewer, Fourth National Report on Human Exposure to Environmental Chemicals Centers for Disease Control and Prevention	2009
Member, Scientific Review Committee, RFA ES09-001 National Institute of Environmental Health Sciences, NIH	2009
Reviewer, 2009 Assistance to Firefighter Research Grant applications Department of Homeland Security, Federal Emergency Management Agency	2010
Reviewer, National Survey of the Mining Population Information Circular Parts I and II NIOSH Office of Mine Safety and Health Research	2010
Reviewer, 2010 Assistance to Firefighter Research Grant applications Department of Homeland Security, Federal Emergency Management Agency	2011
Member, NIEHS Special Emphasis Review Panels, FOA PAR10-084 National Institute of Environmental Health Sciences, NIH	2011
Peer Reviewer, “Mine Rescue Ensembles for Underground Coal Mining” proposal NIOSH Personal Protective Technology Laboratory (NPPTL)	2011
Reviewer, 2011 Assistance to Firefighter Research Grant applications Department of Homeland Security, Federal Emergency Management Agency	2012
Member, Scientific Review Committee, World Trade Center Research RFA PAR-12-126 National Institute for Occupational Safety and Health, Alexandria, VA	2012
Technical Reviewer, “Interpreting MSHA Citations through the Lens of Occupational Health and Safety Management Systems: Investigating their Impact on Mine Injuries and Illnesses 2003-2010” National Institute for Occupational Safety and Health Office of Mine Safety and Health Research	2012
Member, “PPDC 21 <sup>st</sup> Century Toxicology/New Integrated Testing Strategies Workgroup Biomonitoring Subgroup” Environmental Protection Agency (EPA)	2013
Technical Reviewer, “Assessing the Safety Culture of Underground Coal Mining” National Institute for Occupational Safety and Health Office of Mine Safety and Health Research	2013
Journal Reviews (since 2005)	
American Journal of Industrial Medicine	2008 – 2011, 2013
Annals of Emergency Medicine	2008
Archives of Environmental and Occupational Health	2007, 2012, 2013
Asian Journal of Criminology	2012
BMC Public Health	2013
BMC Women’s Health	2012
Cytokine	2010, 2011
Environmental Research	2007
Extreme Physiology and Medicine	2012

International Journal for Occupational and Environmental Health	2006
Journal of the American Medical Association (JAMA)	2005 – 2009, 2011
Journal of Environmental Monitoring	2010
Journal of the International Society for Respiratory Protection	2005
Journal of Medical Toxicology	2012, 2013
Journal of Occupational and Environmental Hygiene	2008, 2009, 2011, 2013
Journal of Occupational and Environmental Medicine	2012
Journal of Occupational Medicine and Toxicology	2008
Journal of Toxicology Clinical Toxicology	2005 - 2013
Journal of Toxicology and Environmental Health, Part A: Current Issues	2013
Minerals & Metallurgical Processing Journal	2008
Pharmacological Research	2008
Scandinavian Journal of Work Environment and Health	2010
Society for Mining, Metallurgy, and Exploration, Inc.	2009, 2010, 2013
The Tohoku Journal of Experimental Medicine	2007
Toxicological Sciences	2008, 2012

### **Presentations**

Dust and Noise Monitoring Courses Harare, Zimbabwe; Lusaka and Kitwe, Zambia	August 2002
Nominated Medical Advisors Meeting, Health Surveillance Unit Queensland Government Natural Resources and Mines, Brisbane, Australia “The University of Arizona Mining Health and Safety Program”	November 18, 2003
Queensland Police Department, Brisbane, Australia “Adverse Health Effects from Exposure to Clandestine Methamphetamine Laboratories”	December 4, 2003
Washington Poison Center, Seattle, WA “Hazardous Materials Incidents”	July 27, 2006
Urban Fire Forum, Metro Fire Chiefs, Quincy MA “Fireground Injuries: An International Comparison of Causes and Best Practices”	October 21, 2011

### **Section/Departmental Committees**

Environmental and Occupational Health Section Admission Committee	1999 - present
Division Peer Review Committee	2000 - 2002

### **College Committees**

Space Committee member, College of Public Health	2000 - 2006
Ad hoc committee member on Tobacco Industry Funding	2001 - 2002
Promotion and Tenure Committee member, College of Public Health	2002 - 2004
Search Committee member, Epidemiology Assoc/Full Professor	2005
MPH Admissions Committee/Reviewer member	2006 - 2007
Undergraduate Education Workgroup member	2007 - present
College of Public Health Dean Search Committee member	2007 -2008
Phoenix Planning Workgroup member	2008
Search Committee member, Health Promotion Sciences Division Director	2008 - 2009
Scientific Review Committee Member, Dean's Health Promotion Mini Grants	July 2011

### **University Committees**

Southwest Environmental Health Sciences Center, College of Pharmacy Internal Advisory Committee	1999 - 2003
Arizona Health Sciences Center Bioterrorism Advisory Group	2001 - 2002
University of Arizona Preparedness Committee	2001 - 2002
Community Outreach and Education Program Internal Advisory Board Southwest Environmental Health Sciences Center, College of Pharmacy	2004 - 2005
General Clinical Research Center Advisory Committee University of Arizona Health Sciences Center, Tucson, AZ	2004 - 2005
Arizona Institutional Chemical Safety Committee (Co-chair)	2004 - 2005
University of Arizona, Tucson, AZ (Chairman)	2005 - 2007
Dean's Representative, Academic Advisory Committee Water Sustainability Program, University of Arizona, Tucson, AZ	2005 - 2012
Reviewer, UA Arizona Clinical and Translational Research and Education Consortium (ACTREC) Pilot Interdisciplinary Translational Research proposals	2007 - 2008
Campus Emergency Response Team (UA CERT) University of Arizona, Tucson, AZ	2007 - 2013
Selection Committee Member, CTSI Translational Position Hires Community Outreach and Education Core Stakeholder Advisory Board member	March 2011
Reviewer, University of Arizona College of Pharmacy Graduate Programs Academic Program Review	September 2011
Member, Univ. Distinguished Outreach Faculty Awards selection committee	2011 - present

### **Interdisciplinary Associations**

Institute for the Study of Planet Earth (ISPE) faculty University of Arizona, Tucson, AZ	2004 - present
Comprehensive Investigator, Arizona Cancer Center University of Arizona, Tucson, AZ	2005 - present
BIO5 Institute (The University of Arizona Institute for Collaborative Bioresearch) Member, University of Arizona, Tucson, AZ	2005 - present

### **Other Committees**

World Health Organization International Programme on Chemical Safety Buenos Aires, Argentina	1995 - 2001 November 1997
Dublin, Ireland	June 1999
Cardiff, Wales	March 2000
Geneva, Switzerland	December 2001
(My service as a member of these working groups included authoring and reviewing documents and helping to determine strategies to improve global chemical safety)	
Asthma Care Alliance of Southern AZ member (American Lung Association)	1998 - 2001
Core Group member, Drug Endangered Children Arizona Attorney General's Office	1999 - 2003
Scientific Advisory Committee member, Advanced Hazmat Life Support University of Arizona Emergency Medicine Research Center, Tucson, AZ	1999 - 2010
Membership Committee member, American College of Medical Toxicology	1996 - 2003
Emergency Response Planning Guideline Committee member American Industrial Hygiene Association	1998 - 2002

Consensus Panel member, Evidence-Based Consensus Guidelines for the Treatment of Weapons of Mass Destruction Victims	1999 - 2004
Panel meeting, Aberdeen Proving Grounds, Maryland	2002
Board of Trustees member, American Academy of Clinical Toxicology	2002 - 2008
Reelected 2005	
Invited participant, Chemoterrorism Vulnerability Assessment Meeting, Mar. 31-Apr. 1, 2003	
Agency for Toxic Substances and Disease Registry, Atlanta, GA	
Invited participant, Advanced Respiratory Protection Technologies R&D Opportunities Workshop, RAND Corporation/National Institute for Occupational Safety and Health	
National Personal Protective Technology Laboratory, Pittsburgh, PA	Feb. 19, 2004
Invited participant, National Working Group on Cleanup and Remediation of Methamphetamine Laboratories	
Chicago, IL	September 30, 2004
St. Paul, MN	October 25, 2004
Salt Lake City, UT	April 27, 2005
Committee to Review the NIOSH Mining Safety and Health Research Program, The National Academies/National Research Council, Washington, D.C.	2006 - 2007
NIOSH National Occupational Research Agenda (NORA)	
Public Safety Council Member	2006 - 2009
Public Safety Council Co-Chair	2009 - present
Mining Council Member	2011 - present
Chemical/Radiation Preparedness Education Collaboration Group Co-chair	2006 - 2007
ASPH/CDC Centers for Public Health Preparedness (CPHP)	
Working Group Member, Volume 98: Fire-fighting, painting and shiftwork	Oct. 2-9, 2007
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Lyon, France	
Invited participant, Meeting on Best Practices for Meth Lab Cleanup	Dec. 18-19, 2007
U.S. Environmental Protection Agency, Washington D.C.	
Invited participant, Database Systems Meeting	Dec. 4, 2008
Federal Emergency Management Agency/Assistance to Firefighter Grants, Wash. D.C.	
Invited participant, Structural Fire Fighter Exposure Workshop	Oct. 28, 2009
Also presentation "Overhaul Exposures: What we know and need to know"	
National Institute for Occupational Safety and Health, Cincinnati, OH	
Invited participant, 2 <sup>nd</sup> National Fire Service Research Agenda Symposium	May 20-22, 2011
The National Fire Academy, National Emergency Training Center, Emmitsburg, MD	
American Board of Preventive Medicine representative, Medical Toxicology Subboard	
(prepares certification exam questions, sets admission/passing criteria)	2012 - present
Member, Fire Protection Research Foundation Board of Trustees	2013 - present

## **Publications**

### **Chapters in Scholarly Books and Monographs**

1. **Burgess JL.** Poison Information Monograph (PIM) on Benzene. World Health Organization IPCS/INTOX Program 1995.
2. Warden C, **Burgess JL.** Poison Information Monograph (PIM) on Furosemide. World Health Organization IPCS/INTOX Program 1995.

3. Warden C, **Burgess JL**. Poison Information Monograph (PIM) on Acetazolamide. World Health Organization IPCS/INTOX Program 1995.
4. **Burgess JL**, Lever P, Schumacher R. Toxic Hazards of Mining and Smelting. In: Sullivan JB, Krieger GR (eds.) *Clinical Environmental Health and Toxic Exposures* 2<sup>nd</sup> edition Lippincott Williams & Wilkins, Philadelphia, PA. 2001:530-538.
5. Greenberg D, **Burgess JL**, Hethmon T. Mining Industry. In: Greenberg MI, Hamilton RJ, Phillips SD McCluskey GJ (eds.) *Occupational, Industrial, and Environmental Toxicology* 2<sup>nd</sup> edition Mosby, Philadelphia, PA. 2003:498-517.
6. Gerkin R, **Burgess JL**. Firefighters. In: Greenberg MI, Hamilton RJ, Phillips SD McCluskey GJ (eds.) *Occupational, Industrial, and Environmental Toxicology* 2<sup>nd</sup> edition, Mosby, Philadelphia, PA. 2003:162-173.
7. **Burgess JL**, Chandler D. Clandestine Drug Laboratories. In: Greenberg MI, Hamilton RJ, Phillips SD, McCluskey GJ (eds.) *Occupational, Industrial, and Environmental Toxicology* 2<sup>nd</sup> edition, Mosby, Philadelphia, PA. 2003:746-765.
8. **Burgess JL**. Fumigants. In: Dart RC, Caravati EM, McGuigan MA, et al. (eds.) *Medical Toxicology* 3<sup>rd</sup> edition, Lippincott Williams & Wilkins, Philadelphia, PA 2004:1508-1515.
9. **Burgess JL**. Hazardous Materials Incidents. In: Dart RC, Caravati EM, McGuigan MA, et al. (eds.) *Medical Toxicology* 3<sup>rd</sup> edition, Lippincott Williams & Wilkins, Philadelphia, PA 2004:1756-1777.
10. **Burgess JL**. Toxic pulmonary syndromes. In: Brent J, Wallace KL, Burkhart KK, Phillips S, Donovan JW. (eds.) *Critical Care Toxicology: Diagnosis and Management of the Critically Poisoned Patient*. Elsevier Mosby, Philadelphia, PA 2005:315-334.

**Refereed Journal Articles** (†publications by student advisees)

1. **Burgess JL** and Dart RC. Snake venom coagulopathy: Use and abuse of blood products in the treatment of pit viper envenomation. *Annals of Emergency Medicine* 1991; 20:795-801.
2. **Burgess JL**, Dart RC, Egen NB, and Mayersohn M. The effects of constriction bands on rattlesnake venom absorption: a pharmacokinetic study. *Annals of Emergency Medicine* 1992; 21:1086-1093.
3. **Burgess JL**, Bernstein JN, and Hurlbut K. Aldicarb poisoning: A case report with prolonged cholinesterase inhibition and improvement after pralidoxime administration. *Archives of Internal Medicine* 1994;154:221-224.
4. **Burgess JL** and Crutchfield CD. Tucson fire fighter exposure to products of combustion: A risk assessment. *Applied Occupational and Environmental Hygiene* 1995;10:37-42.
5. **Burgess JL** and Crutchfield CD. Quantitative respirator fit tests of Tucson fire fighters and measurement of negative pressure excursions during exertion. *Applied Occupational and Environmental Hygiene* 1995;10:29-36.
6. Morrissey B, **Burgess JL**, and Robertson WO. Washington's experience and recommendations re: Anticoagulant rodenticides. *Veterinary and Human Toxicology* 1995;37:362-363.
7. **Burgess JL**, Barnhart S, and Checkoway H. Investigating clandestine drug laboratories: Adverse medical effects in law enforcement personnel. *American Journal of Industrial Medicine* 1996;30:488-494.
8. **Burgess JL**, Keifer MC, Barnhart S, Richardson M, Robertson WO. The Hazardous Materials Exposure Information Service: Development, analysis, and medical implications. *Annals of Emergency Medicine* 1997;29:248-254.



9. **Burgess JL**, Pappas GP, Robertson WO. Hazardous materials incidents: The Washington Poison Center experience and approach to exposure assessment. *Journal of Occupational and Environmental Medicine* 1997;39:760-766.
10. **Burgess JL**, Blackmon GM, Brodtkin CA, Robertson WO. Hospital preparedness for hazardous materials incidents and treatment of contaminated patients. *Western Journal of Medicine* 1997;167:387-391.
11. **Burgess JL**, Hamner AP, Robertson WO. Sulfhemoglobinemia after dermal application of DMSO. *Veterinary and Human Toxicology* 1998;40:87-89.
12. Elko CJ, **Burgess JL**, Robertson WO. Zolpidem-associated hallucinations and serotonin reuptake inhibition: A possible interaction. *Journal of Toxicology - Clinical Toxicology* 1998;36:195-203.
13. Luderer U, **Burgess JL**, Polifka JE, Robertson WO. Calls on reproductive and developmental toxicants to a regional poison center. *Veterinary and Human Toxicology* 1999;41:42-46.
14. **Burgess JL**. Hospital evacuations due to hazardous materials incidents. *American Journal of Emergency Medicine* 1999;17:50-52.
15. **Burgess JL**, Brodtkin CA, Daniell WE, Pappas GP, Keifer MC, Stover BD, Edland SD, Barnhart S. Longitudinal decline in measured firefighter single-breath diffusing capacity of carbon monoxide values: A respiratory surveillance dilemma. *American Journal of Respiratory and Critical Care Medicine* 1999;159:119-124.
16. **Burgess JL**, Kirk MA, Borron SW, Cisek J. Emergency department hazardous materials protocol for contaminated patients. *Annals of Emergency Medicine* 1999;34:205-212.
17. **Burgess JL**, Kovalchick DF, Kyes KB, Thompson JN, Barnhart S. Hyperventilation following a large-scale hazardous-materials incident. *International Journal of Occupational and Environmental Health* 1999;5:194-197.
18. **Burgess JL**, Morrissey B, Keifer MC, Robertson WO. Fumigant related illnesses: Washington State's five-year experience. *Journal of Toxicology - Clinical Toxicology* 2000;38:7-14.
19. **Burgess JL**, Kovalchick D, Harter L, Kyes K, Thompson J. Hazardous materials events: an industrial comparison. *Journal of Occupational and Environmental Medicine* 2000;42:546-553.
20. †Bolstad-Johnson DM, **Burgess JL**, Crutchfield CD, Storment SB, Gerkin RD. Characterization of firefighter exposures during fire overhaul. *American Industrial Hygiene Association Journal* 2000;61:636-641.
21. **Burgess JL**, Kovalchick D, Harter L, Kyes KB, Lymp JF, Brodtkin CA. Hazardous materials events: Evaluation of transport to health care facility and evacuation and decisions. *American Journal of Emergency Medicine* 2001;19:99-105.
22. **Burgess JL**. Phosphine exposure from a methamphetamine laboratory investigation. *Journal of Toxicology - Clinical Toxicology* 2001;39:165-168.
23. **Burgess JL**, Nanson CJ, Bolstad-Johnson DM, Gerkin R, Hysong TA, Lantz RC, Sherrill DL, Crutchfield CD, Quan SF, Bernard AM, Witten ML. Adverse respiratory effects following overhaul in firefighters. *Journal of Occupational and Environmental Medicine* 2001;43:467-473.
24. **Burgess JL**, Kovalchick D, Lymp JF, Kyes KB, Robertson WO, Brodtkin CA. Risk factors for adverse health effects following hazardous materials incidents. *Journal of Occupational and Environmental Medicine* 2001;43:558-566.

25. †Nanson CJ, **Burgess JL**, Robin M, Bernard AM. Exercise alters serum pneumoprotein concentrations. *Respiration Physiology* 2001;127:259-265.
26. **Burgess JL**, Nanson CJ, Gerkin R, Witten ML, Hysong TA, Lantz RC. Rapid decline in sputum IL-10 concentration following occupational smoke exposure. *Inhalation Toxicology* 2002;14:133-140.
27. **Burgess JL**, Kovalchick DF, Siegel EM, Hysong TA, McCurdy SA. Medical surveillance of clandestine drug lab investigators. *Journal of Occupational and Environmental Medicine* 2002;44:184-189.
28. Kovalchick DF, **Burgess JL**, Kyes KB, Lymp JF, Russo JE, Roy-Byrne PP, Brodtkin CA. Psychological effects of hazardous materials exposures. *Psychosomatic Medicine* 2002;64:841-846.
29. †Hysong TA, **Burgess JL**, Cebrian ME, O'Rourke MK. House dust and inorganic urinary arsenic in two Arizona mining towns. *Journal of Exposure Analysis and Environmental Epidemiology* 2003;13:211-218.
30. **Burgess JL**, Witten ML, Nanson CJ, Hysong TA, Sherrill DL, Quan SF, Gerkin R, Bernard AM. Serum pneumoproteins: a cross-sectional comparison of firefighters and police. *American Journal of Industrial Medicine* 2003;44:246-253.
31. Meza MM, Kopplin MJ, **Burgess JL**, Gandolfi AJ. Arsenic drinking water exposure and urinary excretion among adults in the Yaqui Valley, Sonora, Mexico. *Environmental Research* 2004;96:119-126.
32. **Burgess JL**, Fierro MA, Lantz RC, Hysong TA, Fleming JE, Gerkin R, Hnizdo E, Conley SM, Klimecki W. Longitudinal decline in lung function: evaluation of interleukin-10 genetic polymorphisms in firefighters. *Journal of Occupational and Environmental Medicine* 2004;46:1013-1022.
33. †Mulenga EM, Miller HB, Sinkala T, Hysong TA, **Burgess JL**. Silicosis and tuberculosis in Zambian miners. *International Journal of Occupational and Environmental Health* 2005;11:259-262.
34. †Derby MP, McNally J, Ranger-Moore J, Hulette L, Villar RG, Lebowitz MD, Hysong TA, MacNeil E, **Burgess JL**. Poison control center based foodborne illness surveillance. *Morbidity and Mortality Weekly Report* 2005;54 Suppl (Aug 26):35-40.
35. †Poplin GS, Miller HD, Hintz PJ, Martini L, **Burgess JL**. Dermatitis in the mining industry: Incidence, sources and time loss. *Archives of Environmental and Occupational Health* 2005;60:77-85.
36. †Josyula AB, McClellan H, Hysong T, Kurzius-Spencer M, Poplin GS, Sturup S, **Burgess JL**. Reduction in urinary arsenic with bottled-water intervention. *Journal of Health, Population and Nutrition* 2006;24:298-304.
37. †Josyula AB, Poplin S, Kurzius-Spencer M, McClellan HE, Kopplin MJ, Sturup S, Lantz RC, **Burgess JL**. Environmental arsenic exposure and sputum metalloproteinase concentrations. *Environmental Research* 2006;102:283-290.
38. Andrew AS, **Burgess JL**, Meza MM, Demidenko E, Waugh MG, Hamilton JW, Karagas MR. Arsenic exposure is associated with decreased DNA repair in vitro and in individuals exposed to drinking water arsenic. *Environmental Health Perspectives* 2006;114:1193-8.
39. Miller HB, Sinkala T, Renger RF, Peacock EM, Tabor JA, **Burgess JL**. Identifying antecedent conditions responsible for the high rate of mining injuries in Zambia. *International Journal of Occupational and Environmental Health* 2006;12:329-339.

40. †Josyula AB, Kurzius-Spencer M, Littau SR, Yucesoy B, Fleming J, **Burgess JL**. Cytokine genotype and phenotype effects on lung function decline in firefighters. *Journal of Occupational and Environmental Medicine* 2007;49:282-288.
41. **Burgess JL**, Fleming JE, Mulenga EM, Josyula A, Hysong TA, Joggerst PJ, Kurzius-Spencer M, Miller HB. Acute changes in sputum IL-10 following underground exposure to diesel exhaust. *Clinical Toxicology* 2007;45:255-260.
42. Lantz RC, Lynch BJ, Boitano S, Poplin GS, Littau S, **Burgess JL**. Pulmonary biomarkers based on alterations in protein expression after exposure to arsenic. *Environmental Health Perspectives* 2007;115:586-591.
43. **Burgess JL**, Meza MM, Josyula AB, Poplin GS, Kopplin MJ, McClellan HE, Sturup S, Lantz RC. Environmental arsenic exposure and urinary 8-OHdG in Arizona and Sonora. *Clinical Toxicology* 2007;45:490-498.
44. Anthony TR, Joggerst P, James L, **Burgess JL**, Leonard SS, Shogren ES. Method development study for APR cartridge evaluation in fire overhaul exposures. *Annals of Occupational Hygiene* 2007;51:703-716.
45. Kurzius-Spencer M, Foster K, Littau S, Richey KJ, Sherrill D, Goodman RB, Boitano S, **Burgess JL**. Tracheobronchial markers of lung injury in smoke inhalation victims. *Journal of Burn Care and Research* 2008;29:311-318.
46. Yucesoy B, Kurzius-Spencer M, Johnson VJ, Fluharty K, Kashon ML, Guerra S, Luster MI, **Burgess JL**. Association of cytokine gene polymorphisms with rate of decline in lung function. *Journal of Occupational and Environmental Medicine* 2008;50:642-648.
47. †Poplin GS, Miller HB, Ranger-Moore J, Bofinger CM, Kurzius-Spencer M, Harris RB, **Burgess JL**. International evaluation of injury rates in coal mining: A comparison of risk and compliance based regulatory approaches. *Safety Science* 2008;46:1196-1204.
48. Meza MM, Kopplin MJ, **Burgess JL**, Gandolfi AJ. Urinary arsenic methylation profile in children exposed to low arsenic levels through drinking water. *Journal of Toxicology and Environmental Chemistry* 2008;90:957-970.
49. Robinson M, Anthony TR, Littau SR, Herckes P, Nelson X, Poplin GS, **Burgess JL**. Occupational PAH exposures during prescribed pile burns. *Annals of Occupational Hygiene* 2008;52:497-508.
50. Olsen CE, Liguori AE, Zong Y, Lantz RC, **Burgess JL**, Boitano S. Arsenic upregulates MMP-9 and inhibits wound repair in human airway epithelial cells. *American Journal of Physiology - Lung Cellular and Molecular Physiology* 2008;295:L293-302.
51. †Thrasher DL, Von Derau K, **Burgess JL**. Health effects from reported exposure to methamphetamine labs: A poison center-based study. *Journal of Medical Toxicology* 2009;5:200-204.
52. Kurzius-Spencer M, Foster K, Littau S, Richey KJ, Clark BM, Sherrill D, Boitano S, Caruso DM, **Burgess JL**. Tracheobronchial protease inhibitors, body surface area burns, and mortality in smoke inhalation. *Journal of Burn Care and Research* 2009;30:824-831.
53. Wong SS, Sun NN, Miller HB, Witten ML, **Burgess JL**. Acute changes in sputum collected from exposed human subjects in mining conditions. *Inhalation Toxicology* 2010;22:479-485.
54. Granillo B, Renger R, Wakelee J, **Burgess JL**. Utilization of the Native American talking circle to teach Incident Command System to tribal Community Health Representatives. *Journal of Community Health* 2010;35:625-634.

55. Wong SS, Sun NN, Fastje CD, Witten ML, Lantz C, Lu B, Sherrill DL, Gerard CJ, **Burgess JL**. Role of Nephrylsin in airway inflammation induced by diesel exhaust emissions. *Health Effects Institute (HEI) Research Report 159* June 2011.
56. Sherwood CL, Lantz RC, **Burgess JL**, Boitano S. Arsenic alters ATP-dependent Ca<sup>2+</sup> signaling in human airway epithelial cell wound response. *Toxicological Sciences* 2011;121:191-206.
57. Hites LS, Granillo BS, Garrison ER, Cimetta AD, Serafin VJ, Renger RF, Wakelee JF, **Burgess JL**. Emergency preparedness training of tribal community health representatives. *Journal of Immigrant and Minority Health* 2012;14:323-329.
58. †Poplin GS, Harris RB, Pollack K, Peate W, **Burgess JL**. Beyond the Fireground: Injuries in the Fire Service. *Injury Prevention* 2012;18:228-233.
59. **Burgess JL**, Kurzius-Spencer M, Gerkin R, Fleming J, Peate W, Alison M. Risk factors for subclinical atherosclerosis in firefighters. *Journal of Occupational and Environmental Medicine* 2012;54:328-335.
60. †Roberge J, O'Rourke MK, Meza-Montenegro M, Gutierrez-Millan L, **Burgess JL**, Harris RB. Binational arsenic exposure survey: Methodology and exploration of the relationship between estimated arsenic intake from drinking water and urinary arsenic concentrations. *International Journal of Environmental Research and Public Health* 2012;9:1051-1067.
61. **Burgess JL**, Duncan M, Hu C, Littau SR, Caseman D, Kurzius-Spencer M, Gorman G, McDonogh P. Acute cardiovascular effects of firefighting and active cooling during rehabilitation. *Journal of Occupational and Environmental Medicine* 2012;54:1413-1420.
62. **Burgess JL**, Kurzius-Spencer M, O'Rourke MK, Littau S, Roberge J, Meza MM, Gutiérrez Millán LE, Harris RB. Environmental arsenic exposure and serum matrix metalloproteinase-9. *Journal of Exposure Science and Environmental Epidemiology* 2013;23:163-169.
63. Poplin GS, Miller HB, Sotille J, Hu C, Hill JRM, **Burgess JL**. Enhancing severe injury surveillance: The association between severe injury events and fatalities in US coal mines. *Journal of Safety Research* 2013;44:31-35.
64. †Kurzius-Spencer M, O'Rourke MK, Hsu C, Hartz V, Harris R, **Burgess JL**. Measured versus modeled dietary arsenic and relation to urinary arsenic excretion and total exposure. *Journal of Exposure Science and Environmental Epidemiology* 2013;23:442-449.
65. **Burgess JL**, Kurzius-Spencer M, Poplin GS, Littau SR, Kopplin MJ, Sturup S, Boitano S, Lantz RC. Environmental arsenic exposure, selenium and sputum alpha-1 antitrypsin. *Journal of Exposure Science and Environmental Epidemiology* (advance online publication).
66. **Burgess JL**, Duncan M, Mallett J, LaFleur B, Littau SR, Shiwaku K. International comparison of fire department injuries. *Fire Technology* (advance online publication).
67. Duncan MD, Littau SR, Kurzius-Spencer M, **Burgess JL**. Development of best practice standard operating procedures for prevention of fireground injuries. *Fire Technology* (advance online publication).
68. †Kurzius-Spencer M, **Burgess JL**, Harris RB, Hartz V, Roberge J, Huang S, Hsu CH, O'Rourke K. Contribution of diet to aggregate arsenic exposures-An analysis across populations. *Journal of Exposure Science and Environmental Epidemiology* (advance online publication).
69. †Lee VST, **Burgess JL**, Sterling CR, Lutz EA. *Schistosoma mansoni*: assessment of oleic acid, cercarial age, and water temperature on parasite-host attraction. *International Journal for Parasitology* 2013;43:837-842.

70. †Poplin GS, Roe DJ, Peate W, Harris RB, **Burgess JL**. The association of aerobic fitness with injuries in the fire service. *American Journal of Epidemiology* (advance online publication).
71. Sherwood CL, Ligouri AE, Olsen CE, Lantz RC, **Burgess JL**, Boitano S. Arsenic compromises conducting airway epithelial barrier properties in primary mouse and immortalized human cell cultures. *PLOS ONE* (online publication).

## Other Publications

### Abstracts (peer reviewed, not otherwise published)

1. **Burgess JL**, Robertson W. Integrating four PCC's medical staffs. *Journal of Toxicology Clinical Toxicology* 1998;36:482-483.
2. Martin TG, **Burgess JL**, Tadaki K, Robertson WO. Critical injuries from a chlorosilane explosion. *Journal of Toxicology Clinical Toxicology* 2000;38:543.
3. Elko C, **Burgess J**. Lithium grease ingestion in a 14-month-old child. *Journal of Toxicology Clinical Toxicology* 2000;38:573-574.
4. **Burgess JL**, Waksman J, Fleming JE, Rowland HE, Conley SM. Effects of smoke exposure on sputum inflammatory cytokines. *Journal of Toxicology Clinical Toxicology* 2002;40:651.
5. Wagner P, **Burgess JL**, Castranova V, Leonard S, Fleming JE, Crutchfield CD. Adsorption of free radicals by respirator cartridges. *Journal of Toxicology Clinical Toxicology* 2002;40:681.
6. Morrissey BF, Harter LC, Cropley JM, **Burgess JL**. Residential phaseout of Chlorpyrifos and Diazinon: reductions in reported human exposure cases in Washington state. *Journal of Toxicology Clinical Toxicology*. 2004;42:806-807.
7. Josyula A, Hysong TA, **Burgess JL**. Measurement of sputum 8-OHdG as a biomarker of DNA damage in the lung associated with exposure to inhaled toxicants. *Journal of Toxicology Clinical Toxicology*. 2004;42:811.
8. Sun NN, Witten ML, Hersh LB, Lantz RC, **Burgess JL**, Wong SS. Importance of neutral endopeptidase in epithelial response to diesel particulate exposure. *The FASEB Journal*. 2007;21:A407.
9. Derby M, McNally J, Ranger-Moore J, Hulette L, Villar R, Lebowitz M, **Burgess J**. Active surveillance of foodborne illnesses using a novel syndrome database. *Advances in Disease Surveillance*. 2007;2:101.
10. Kurzius-Spencer M, Foster K, Littau S, Richey KJ, Goodman RB, **Burgess JL**. Predictive value of tracheobronchial pro- and anti-inflammatory mediator ratios in smoke inhalation victims. *Clinical Toxicology*. 2007;45:624.

### General (Non-Peer Reviewed)

1. Dart RC and **Burgess JL**. Snakebite coagulopathy. *Clinical Hemostasis Review* 1990; 4: 6.
2. **Burgess J**. The Washington Poison Center HMEIS review of the oxides of nitrogen release from Boeing facility. *The Bulletin: King County Medical Society* January 1996, pp 17-19.
3. **Burgess J**. Who do you call for information? *WSMA Reports* March 1996, p 10.
4. **Burgess JL**. Methamphetamine labs: Community risks and public health responses. *Washington Public Health* Fall 1997:27-29.
5. **Burgess J**. Weapons of Mass Destruction Act of 1996. *ACMT Newsletter* 1997.
6. **Burgess J**, Klein R, Walter FG. Irritant Gases. in: Walter FG, et al. (eds.) *Advanced Hazmat Life Support Instructor Manual* University of Arizona Emergency Medicine Research Center, Tucson, AZ. 1999.

7. **Burgess J**, Klein R, Walter FG. Asphyxiants. in: Walter FG, et al. (eds.) *Advanced Hazmat Life Support Instructor Manual* University of Arizona Emergency Medicine Research Center, Tucson, AZ. 1999.
8. **Burgess J**. Evergreen Update, *American Industrial Hygiene Association Emergency Response Planning Guideline for Phosphorus Pentoxide* 2000.
9. **Burgess J** and Pelclová D. Building an International Occupational and Environmental Research Agenda. *AACTion* December 2005, Volume 14, Number 4, pp 2-4.
10. Dart RC, Bevelacqua A, DeAtley A, Sidell F, Goldfrank L, Madsen J, Alcorta R, Keim M, Auf der Heide E, Joyce S, Shannon M, **Burgess J**, Kirk M, Henretig F, Thomas R, Geller R, Bronstein AC, Eitzen E, Kilbourne E, Fenton D, Reisman D, Gum R, Tarosky M, Edelman P, Erdman A, Bogdan G. Countering Chemical Agents. *JEMS*. 2006;31:36-41.
11. **Burgess JL**. Editorial on “Assessment of Mercury Exposure in a Nevada School-2004”. *Clinical Toxicology* 2007;45:431.

### **Work in Progress**

1. Nash VL, Gerald LB, Poplin GS, **Burgess JL**. Development of an intervention for probationary firefighter fitness maintenance (PFF-Fit) with an intervention mapping approach. (submitted)
2. Peña J, Griffin S, West G, Peate W, **Burgess JL**. Cost analysis of injury claims in the fire service. (submitted)
3. Lee VST, Lutz EA, **Burgess JL**. Risk Management Systems as an Effective Means to Reduce Mining Injuries in a U.S. Metal Mining Company. (in preparation)

### **Scholarly Presentations**

#### **Invited Speaker**

- |   |                      |
|---|----------------------|
| International Association of Fire Fighters<br>16 <sup>th</sup> John P. Redmond Symposium, Phoenix, AZ<br>“Study of Fire Fighter Exposure During Overhaul Operations”  | September 25, 2001   |
| Clandestine Laboratory Investigating Chemists Association, New Orleans, LA<br>“Adverse Health Effects in Clandestine Drug Lab Investigators”  | Sept. 6, 2002        |
| Association of Schools of Public Health, Pittsburgh, PA<br>Responding to a New Environment: Emergency Response at Schools of Public Health<br>“Fire Fighters: Respiratory Protection and Lung Injury”<br>“Chemical/Hazardous Materials Emergencies” | September 9-10, 2002 |
| Center for Research on Occupational and Environmental Toxicology<br>CROET Seminar Series, Portland, OR<br>“Inhalation toxicology: new biomarkers of inflammation and gene expression”   | December 9, 2002     |
| National Institute for Occupational Safety and Health<br>Pittsburgh Research Laboratory Colloquium, Pittsburgh, PA<br>“The University of Arizona Mining Health and Safety Program”  | May 30, 2003         |
| Australian and New Zealand Society of Occupational Medicine and<br>Australasian Faculty of Occupational Medicine Queensland Branches, Brisbane, Australia<br>“Occupational Exposure to Smoke and Diesel Exhaust: Respiratory Effects”               | December 4, 2003     |

Australiasian Society of Clinical and Experimental Pharmacologists and Toxicologists  
Annual Scientific Meeting, Sydney, Australia Nov. 30, 2003  
“Adverse health effects from exposure to clandestine methamphetamine laboratories”

University of California Irvine March 9, 2004  
Department of Medicine Grand Rounds, Irvine, CA  
“Where there’s smoke...: Respiratory health in firefighters”

Department of Defense Peer Reviewed Medical Research Program April 27, 2004  
Military Health Research Forum (poster session), San Juan, Puerto Rico  
“Longitudinal changes in tracheobronchal fluid inflammatory mediators in smoke inhalation victims developing acute respiratory distress syndrome (ARDS)”

University of Arizona May 12, 2005  
Respiratory Sciences Research Seminar, Tucson, AZ  
“Fire smoke exposure: Longitudinal decline in lung function and ALI”

Peoples Union Medical College (PUMC) June 3, 2005  
Seminar Series, Beijing, China  
“Poison Information Centers”

Indian Health Service Unit, Northern Cheyenne Reservation, Lame Deer, MT July 7, 2005  
Methamphetamine Menace in Southeastern Montana  
“Clandestine methamphetamine laboratories”

University of Arizona August 12, 2005  
Department of Medicine Grand Rounds, Tucson, AZ  
“Health Hazards of Clandestine Methamphetamine Laboratories”

University of Arizona December 6, 2005  
Mel and Enid Zuckerman College of Public Health Seminar Series, Tucson, AZ  
“An Australian Sabbatical: Model Practices in Mining Injury Prevention”

ACMT 4<sup>th</sup> Annual Medical Toxicology Spring Course, Phoenix, AZ March 2, 2006  
“Personal and Environmental Protection Requirements during Methamphetamine Laboratory Seizure and Clean-up” and “Field Detection of Toxic Substances and Medical Monitoring”

Northern Arizona University, Flagstaff, AZ March 17, 2006  
The Native American Cancer Research Partnership Seminar Series  
“Exposure to Combustion Products: Acute and Long-term Effects”

Department of Defense Peer Reviewed Medical Research Program May 3, 2006  
Military Health Research Forum (poster session), San Juan, Puerto Rico  
“Tracheobronchal Markers of Lung Injury in Smoke Inhalation Victims”

Arizona Public Health Association 78<sup>th</sup> Annual Meeting, Tempe, AZ September 14, 2006  
Plenary Session “Future of Environmental Health”

Keynote Speaker, 10<sup>th</sup> National Chemical Diversion Conference October 17, 2006  
Gold Coast, Queensland, Australia  
“Health Effects of Clandestine Methamphetamine Laboratory Exposure”

Institute of Medicine of the National Academies October 23, 2006  
Committee on Personal Protective Equipment in the Workplace  
“Additional Perspectives on Chemical Mixtures”

- University of Arizona January 23, 2007  
 Frontiers in Medical Research Seminar, College of Medicine Research Office, Tucson, AZ  
 “Arsenic Effects On the Lung: Evaluation of Lung Epithelium and Human Populations”  
 (Co-presented with Scott Boitano, PhD)
- National Institute of Standards and Technology May 3, 2007  
 Workshop on Real-Time Particulate Monitoring - Respiratory Threats for First Responders  
 Gaithersburg, MD “Firefighter Health Effects: Overhaul and Beyond”  
 Published in NIST Special Publication 1051, December 2007 ([www.bfrl.nist.gov/fris/](http://www.bfrl.nist.gov/fris/))
- North American Conference of Clinical Toxicology October 22, 2007  
 2007 Annual Meeting, New Orleans, LA  
 American College of Medical toxicology Fellows-in-Training Roundtable “The Development  
 of an Academic Career in Medical Toxicology”
- American College of Toxicology 29<sup>th</sup> Annual Meeting, Tucson AZ November 12, 2008  
 Forensic Toxicology: Recent Advances and Current Issues Symposium “Health effects of  
 clandestine methamphetamine laboratory exposure”
- Western Occupational Health Conference September 10, 2009  
 2009 Annual Meeting, Scottsdale, AZ  
 “Where there’s smoke...Firefighter health”
- International Association of Fire Fighters John P. Redmond Symposium August 16, 2011  
 on the Occupational Health & Hazards of the Fire Service, New York City  
 “Inhalation hazards at the fireground”
- InterAgency Board Workshop on Evaluation of Hazards and Operations February 7, 2013  
 in the Post-Fire Environment, New Orleans  
 “Overhaul and beyond”
- XVII International Seminar on Safety in Mining Operations, Lima, Peru April 25, 2013  
 Instituto de Seguridad Minera “International Evaluation of injury rates in metal and coal mining:  
 A comparison of risk and compliance-based regulatory approaches”
- National Fire Protection Association Conference and Expo, Chicago, IL June 11, 2013  
 Emergency Responder Research to Practice session  
 “Fireground Injuries: An International Evaluation of Causes and Best Practices”
- Segundo Congreso Nacional de Biotecnología y Ciencias Alimentarias, October 25, 2013  
 Instituto Tecnológico de Sonora, Ciudad Obregon, Mexico  
 “Toxicidad del Arsénico: Identificación y pruebas de biomarcadores de efecto”
- Other Conference Presentations** (\*peer reviewed)
- American Occupational Health Conference 2002, Chicago, IL April 16, 2002  
 Current Research in Occupational-Environmental Medicine  
 “Adverse Respiratory Effects Following Overhaul in Firefighters”
- \*North American Conference of Clinical Toxicology September 28-29, 2002  
 2002 Annual Meeting, Palm Springs, CA  
 “Effect of Smoke Exposure on Inflammatory Cytokines”  
 “Interleukin-10 Single Nucleotide Polymorphisms and Longitudinal Decline in Lung Function”



- and “Adsorption of Free Radicals by Respirator Cartridges”
- \*International Congress on Occupational Health February 27, 2003  
 27th International Conference, Iguassu Falls, Brazil  
 “Use of cDNA Microarray to Evaluate Alterations in Gene Expression in Bronchoepithelial Cells”
- \*American Thoracic Society 2004 May 24-25, 2004  
 International Congress of the American Thoracic Society, Orlando, FL  
 “Evaluation of Pulmonary Inflammation Following Underground Exposure to Diesel Exhaust” (poster)  
 “Longitudinal Decline in Lung Function: Evaluation of Interleukin-10 Genetic Polymorphisms in Firefighters” (poster)  
 Longitudinal Changes in Tracheobronchial Suction Fluid Inflammatory Mediators Following Smoke Inhalation” (poster)
- North American Conference of Clinical Toxicology September 14, 2004  
 2004 Annual Meeting, Seattle, WA  
 “Medical Monitoring and Surveillance of Occupational and Environmental Exposures”  
 Seminar organizer and presenter
- \*American Thoracic Society 2005 May 23-24, 2005  
 International Congress of the American Thoracic Society, San Diego, CA  
 “Sputum Cytokines and Longitudinal Decline in Lung Function in Firefighters” (poster, preliminary results presented)  
 “Use of Tracheobronchial Suctionate Inflammatory Markers to Predict Subsequent Lung Injury in Smoke Inhalation Victims” (poster)  
 “Environmental Arsenic Exposure and Sputum Metalloproteinase Concentration” (poster, preliminary results presented)
- North American Conference of Clinical Toxicology September 13-14, 2005  
 2005 Annual Meeting, Orlando, FL  
 Organizer and Presenter of a symposium “Building an International Occupational and Environmental Research Agenda” including speakers from the EPA, NIOSH, DHS, WHO, Czech Republic and Australia  
 \* “Tracheobronchial Biomarkers of Acute Lung Injury” (oral presentation platform session)  
 \* “Low Dose Arsenic Exposure and Urinary 8-OHdG in Arizona and Sonora” (poster)  
 \* “Sputum Cytokines and Longitudinal Decline in Lung Function in Firefighters” (poster, updated findings presented including a larger number of firefighters)  
 \* “Environmental Arsenic Exposure and Sputum Metalloproteinase Concentrations” (poster, final research findings presented, including new information on TIMP-1)
- National Institute for Occupational Safety and Health April 19, 2006  
 NORA Symposium 2006, Washington D.C.  
 “Single Nucleotide Polymorphisms (SNPs) Associated with Decline in Lung Function in Firefighters” and “International Evaluation of Injury Rates in Coal Mining: A Comparison of Risk and Compliance Based Regulatory Approaches”
- \*International Congress on Occupational Health June 12, 2006  
 28<sup>th</sup> International Conference, Milan, Italy

“International Evaluation of Injury Rates in Coal Mining: A Comparison of Risk and Compliance Based Regulatory Approaches”

- Public Health Preparedness Summit February 22, 2007  
2007 Annual Meeting, Washington D.C.  
“Chemical Incident Response” part of session “Integrating Poison Control Centers in Preparedness and Response”
- \*North American Conference of Clinical Toxicology October 23, 2007  
2007 Annual Meeting, New Orleans, LA  
“Predictive Value of Tracheobronchial Pro- and Anti-Inflammatory Mediator Ratios in Smoke Inhalation Victims” (poster)
- Federal Emergency Management Agency/Assistance to Firefighter Grants August 24, 2010  
2010 Annual Meeting, Chicago, IL  
“International Comparison of Firefighter Injuries”  
“Risk Factors for Cardiovascular Disease in Firefighters and Effects of Active Cooling During Rehabilitation”  
“Firefighter Statin Trial: Reducing Atherosclerotic Disease and Risk Factors”
- Federal Emergency Management Agency/Assistance to Firefighter Grants August 17, 2011  
2011 Annual Meeting, New York City  
“Fireground Injuries: An International Evaluation of Causes and Best Practices”

**Grants and Contracts** (total amount unless otherwise indicated)

**Federal**

- Clinical Pharmacology Training Grant, National Institutes of Health 1991 - 1993
- Agency for Toxic Substances and Disease Registry Clinical Fellowship 1993 - 1995
- NIEHS Center for Toxicology: Southwest Environmental Health Sciences Center 1997 - 1999  
(PI: Sipes) Investigator (0.2 FTE support), \$677,809/yr direct
- NIEHS Center for Toxicology: Southwest Environmental Health Sciences Center 1999 - 2004  
(PI: Liebler) Investigator (0-0.2 FTE support), \$842,299/yr direct
- NIOSH Special Emphasis Research Career Award (K01) 1998 - 2001  
PI (0.6 FTE effort and 0.4 FTE support), Project: Biomarkers of smoke exposure among firefighters. \$150,000 direct
- EPA “EMPACT” grant with Pima Department of Environmental Quality 1999 - 2001  
Investigator (0.09-0.1 FTE support), Project: Public Access to Environ. Monitoring Data in Tucson, AZ. \$380,075/yr direct
- Fogarty International Center: 2001 - 2008  
International Training and Research in Environmental and Occupational Health (ITREOH)  
PI (0-0.05 FTE support), Project: "International Program for Mining Health and Safety". \$583,315
- National Institute for Environmental Health Sciences 2001 - 2002  
Administrative Supplement to the Southwest Environmental Health Sciences Center (PI: Liebler)  
Project leader (no salary support), Project: "Alterations in Epithelial Cell Gene Expression Following Environmental Arsenic Exposure". \$100,000 direct

U.S. Army Medical Research and Materiel Command Peer Reviewed Medical Research Program PI (0.05-0.2 FTE support) Project: "Acute Lung Injury Following Smoke Inhalation: Predictive Value of Sputum Biomarkers and Time Course of Lung Inflammation". \$1,268,730	2002 - 2007
National Institute for Environmental Health Sciences Community Based Prevention Intervention Research Core (part of Hazardous Waste Risk and Remediation in the Southwest grant, PI: Gandolfi) PI (0.15 FTE support) Project: "Changes in Epithelial Cell Gene Expression Associated with Reduction in Drinking Water Arsenic". \$562,822	2002 - 2005
National Institute for Environmental Health Sciences Admin. Suppl. to Hazardous Waste Risk and Remediation in the Southwest (PI: Gandolfi) Project leader (no salary support), epidemiology subproject: "University of Arizona-Dartmouth Collaborative Studies on Arsenic Toxicity". \$35,000 direct	2002 - 2005
National Institute for Nursing Research, NIH Sponsor (no salary support) for predoctoral training grant (Mary Derby, RN, MPH) "Enhanced Foodborne Surveillance Application to Nursing". \$137,626	2003 - 2008
National Institute for Occupational Safety and Health PI (no salary support), Project: "International Evaluation of Injury Rates: A Comparison of Risk and Compliance Based Regulatory Approaches". \$62,300 over three projects	2004 - 2007
National Cancer Institute, NIH (PI: Martinez) Co-investigator (0-0.08 FTE support), Project: "Arsenic Effects on Colon Cancer" Supplement to SPORC Grant in Gastrointestinal Cancer. \$1,356,013	2004 - 2007
U.S. Environmental Protection Agency (PI: Lantz) Investigator (0-0.1 FTE support), Project: "Pulmonary Biomarkers Based on Alterations in Protein Expression Following Exposure to Arsenic". \$726,652	2005 - 2009
National Institute for Occupational Safety and Health PI (no salary support), Project: "Development of Test Methods for Evaluating Air Purifying Respirator Cartridges for Firefighting Operations". \$50,000	2005 - 2006
Centers for Disease Control and Prevention/Association of Schools of Public Health PI (0.15-0.3 FTE support), Project: "Arizona Center for Public Health Preparedness". \$3,548,573	2005 - 2010
National Cancer Institute, NIH Pilot project within the Native American Cancer Research Partnership (PI: Canfield) Co-leader (no salary support), Project "Occupational Carcinogenic Exposures in Native American Firefighters". \$38,746 direct	2006 - 2007
National Institute for Occupational Safety and Health PI (0-0.15 FTE support), Project: "Development of a Severe Injury Surveillance System for Hazard Identification and Guiding Technological Interventions". \$370,610	2008 - 2009
Federal Emergency Management Agency PI (0-0.15 FTE support), Project: "Determination of Risk Factors for Cardiovascular Disease in Firefighters". \$1,000,000	2008 - 2010
U.S. Environmental Protection Agency	2008 - 2011

PI (0-0.15 FTE support), Project: “Modeling Dietary Contributions to Arsenic Dose and Methylation: Elucidating Predictive Linkages”. \$499,999

FEMA Assistance to Firefighters Grant Program - Fire Prevention and Safety 2009 - 2012  
 PI (0-0.15 FTE support), Project: “Fireground Injuries: An International Evaluation of Causes and Best Practices” \$1,000,000

National Institute for Occupational Safety and Health 2009 - 2013  
 PI (0-0.15 FTE support), Project: “Implementing Risk Management Strategies to Prevent Injuries among Firefighters” \$1,352,731

National Institute for Occupational Safety and Health 2009 - 2017  
 Occupational Safety & Health Training program Grants (T01)  
 PI (0-0.02 FTE support), Project: “Graduate Industrial Hygiene Program Grant, University of Arizona” \$476,550

U.S. Army Medical Research and Materiel Command 2009 - 2013  
 Awarded to the American Burn Association, subawarded the Arizona Burn Center  
 (PI: Foster) Investigator (0.09-0.18 FTE support), Project: “Development of an Inhalation Injury Scoring System to Predict Severity of Inhalation Injury” \$1,035,968

FEMA Assistance to Firefighters Grant Program - Fire Prevention and Safety 2010 - 2013  
 PI (0-0.15 FTE support), Project: “Firefighter Statin Trial: Reducing Atherosclerotic Disease and Risk Factors” \$1,000,000

National Institute for Occupational Safety and Health 2010 - 2014  
 (PIs: Poulton and Burgess) (0-0.5 FTE support), Project: “Western Mining Safety and Health Resource Center” \$1,618,834

Centers for Disease Control and Prevention 2010 - 2015  
 PI (0.25 FTE support), Project: “Mountain West Preparedness and Emergency Response Learning Center” \$4,688,285

National Institute for Occupational Safety and Health 2012 - 2015  
 PI (0.12-0.15 FTE support), Project: “Comparison of Diesel and Biodiesel Emissions and Health Effects in Underground Mining” \$1,419,061

**Industry**

The Boeing Company Corporate Contributions Medical Research Grant 1997 - 1999  
 PI, Project: Washington state hazardous materials incident study. \$200,000/2 yrs

**Private Foundations/Other**

Medical Student Research Training Program Grant, 1985  
 University of Washington School of Medicine

Emergency Medicine Foundation Resident Research Award 1990

Southwest Environmental Health Sciences Center Pilot Project Grant 1999 - 2000  
 PI (no salary support), Project: Serum Biomarkers of Lung Injury Among Police. \$7,500 direct

Arizona Department of Health Services 1999 - 2000  
 PI (<0.01 FTE support), Project: Hayden Winkelman Lead and Arsenic Survey. \$102,773

University of Southern California/NIOSH ERC Pilot Project Grant 1999 - 2000

PI (no salary support), Project: Use of Airway Macrophages as Biomarkers of Genotoxic Exposure. \$14,981

Southwest Environmental Health Sciences Center Pilot Project Grant (matching) 2000 - 2001  
 PI (0-0.03 FTE support), Project: Use of Pulmonary Macrophages as Biomarkers of Genotoxic Exposure. \$15,000 direct

University of Southern California/NIOSH ERC Pilot Project Grant 2000 - 2001  
 PI (no salary support), Advisor to Dr. Marian Fierro, Project: Genetic Susceptibility to Accelerated Loss of Pulmonary Function in Firefighters. \$14,040

Southwest Environmental Health Sciences Center Pilot Project Grant 2001 - 2002  
 PI (no salary support), Project: Use of cDNA Microarray to Evaluate Alterations in Gene Expression in Bronchoepithelial Cells. \$30,000 direct

University of Southern California/NIOSH ERC Pilot Project Grant 2001 - 2002  
 PI (no salary support), Advisor to Joy Fleming, Project: Evaluation of Pulmonary Inflammation Following Occupational Exposure to Diesel Exhaust. \$8,560

State of Arizona Attorney General's Office 2001 - 2002  
 PI (no salary support during project period), Project: Remediation work practices and cleanup levels for clandestine drug laboratories. \$94,084

University of California at Los Angeles /NIOSH ERC Pilot Project Grant 2003 - 2004  
 PI (no salary support), Advisor to Arun Joysula, Project: Pulmonary Inflammation and Longitudinal Decline in Lung Function. \$17,712

California Office of Bi-National Border Service 2005  
 PI (0.03 FTE support), EWIDS (Early Warning Infectious Disease Surveillance) Border-wide Needs Assessment Tool. \$34,756

Southwest Environmental Health Sciences Center Pilot Project Grant 2007 - 2008  
 PI (no salary support), Project: Environmental Arsenic Exposure, Lung Remodeling and Severity of Chronic Obstructive Pulmonary Disease. \$40,000 direct

University of California at Los Angeles /NIOSH ERC Pilot Project Grant 2007  
 PI (no salary support), Advisor to Jerry Poplin, Project: Injuries among the Tucson Firefighting Population: Identifying Root Causes and Areas for Intervention. \$20,072

University of California at Los Angeles /NIOSH ERC Pilot Project Grant 2007  
 PI (no salary support), Advisor to Jennifer Currie, Project: Does rapid lung function decline in firefighters predict respiratory morbidity during their retirement? \$20,065

Arizona Department of Health Services 2008 - 2009  
 PI (no salary support), Project: Training Workshop for AZ Public Health Preparedness. \$40,000

Science Foundation of Arizona 2009 - 2013  
 (PI: Poulton) Co-PI (0-0.1 FTE support), Project: Sustainable Development of Critical Earth Materials. \$17,700,000 (total from combined state and industry funds)

The Japan-United States Educational Commission Fulbright research grant 2010  
 PI (no salary support), Project: Comparison of Firefighter Work Practices and Injury Rates in Japan and the U.S. ¥4,864,440 (yen)

Alpha Foundation for the Improvement of Mine Safety and Health 2013-2015  
PI (0.20 FTE support), Project: Implementation of Risk Management Programs: Identification  
of Best Practices to Reduce Injuries and Maximize Economic Benefits. \$669,208

*This is a true and accurate statement of my activities and accomplishments. I understand that  
misrepresentation in securing promotion and tenure may lead to dismissal or suspension under  
ABOR Policy 6-201 J.I.b.*

Signature: \_\_\_\_\_ Date: \_\_\_\_\_