Jefferey Lloyd Burgess

Curriculum Vitae

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, Arizona

Guest Researcher, Analytical Studies Branch, Health Effects Laboratory Division May-July 2003
National Institute for Occupational Safety and Health (NIOSH), Morgantown, West Virginia
Guest Researcher, Spokane Research Laboratory August-October 2003
NIOSH, Spokane, Washington
Visiting Fellow, Minerals Industry Safety and Health Centre 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 - 2014
Mel and Enid Zuckerman College of Public Health, Tucson, Arizona
Adjunct Associate Professor, Department of Mining and Geological Engineering 2004 - 2009
Adjunct Professor 2009 - present
University of Arizona, Tucson, Arizona
Visiting Professor, Department of Environmental and Preventive Medicine January-June 2010
Shimane University College of Medicine, Izumo, Japan
Associate Dean for Research 2014 - present
Mel and Enid Zuckerman College of Public Health, Tucson, Arizona

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 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
Society of Toxicology Translational Impact Award 2015
Fulbright Schuman European Union Award (United Kingdom and France) 2016
Dr. John Granito Award for Excellence in Fire Leadership and Management Research 2018
International Fire Service Journal of Leadership and Management

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 1997)

Local/State Presentations

Morenci Health Care Center "Cyanide and cyanide antidotes", February 2, 1998
Morenci, AZ
Center for Toxicology Community Outreach and Education Program February 6, 1998
"Lead poisoning", Tucson, AZ

University Medical Center (UMC) Base Hospital Lecture, April 9, 1998
"Water-reactive and flammable solids", Tucson, AZ
Center for Toxicology Community Outreach and Education Program June 4, 1998
Metals: Pluses & Minuses "Medical case studies", Tucson, AZ
UMC Base Hospital Lecture "Oxides of nitrogen", Tucson, AZ August 4, 1998
Hospital Preparation for Hazardous Materials Incidents Training, Reno, NV October 7, 1998
"HOSP-1 and 2. Decontamination of patients. Toxicology and antidotes"
Arizona Chapter, American Industrial Hygiene Association January 19, 1999
"Clandestine Drug Laboratories", Tucson, AZ
Center for Toxicology Community Outreach and Education Program February 5, 1999
"Lead", Tucson, AZ
Arizona Chapter, American Society of Safety Engineers February 16, 1999
"Clandestine Drug Laboratories", Tucson, AZ
UMC Base Hospital Lecture "Low Water Solubility Gases", Tucson, AZ April 6, 1999
Arizona Attorney General's Office panelist October 6, 1999
"Kids and Methamphetamine Community Forum", Phoenix, AZ
Advanced Hazmat Life Support Training Course October 8, 1999
"Toxic Inhalations", Las Vegas, NV
Southwestern Environmental Health Science Center Science Fair May 15, 2000
"Respiratory Toxicology: From Firefighters to Fresh Air", Tucson, AZ
Hospital Preparation for Hazardous Materials Incidents Training, Reno, NV June 8, 2001
"Toxicology"
Arizona Chapter, American Industrial Hygiene Association, Tucson, AZ November 27, 2001
"Firefighter exposure during overhaul and lung injury"
Advanced Hazmat Life Support Training Course March 20, 2002
"HAZMAT Case Study: Ammonia Assault", Tucson, AZ
Southwestern Environmental Health Science Center Science Fair, Tucson, AZ May 17, 2002
"Use of cDNA Microarray to Evaluate Gene Expression in Bronchoepithelial Cells"
Clandestine Laboratory Investigating Chemists Association, New Orleans, LA Sept. 6, 2002
"Adverse Health Effects in Clandestine Drug Lab Investigators"
University of Arizona Superfund Training Core Colloquium, Tucson, AZ Sept. 12, 2002
"Arsenic exposure in Ajo and Tucson: Evaluating the community"
Pan American Health Organization Environmental Epidemiology Workshop Oct. 17, 2002
"Environmental Toxicology/Risk Assessment" Tucson, AZ
Nominated Medical Advisors Meeting, Health Surveillance Unit November 18, 2003
Queensland Government Natural Resources and Mines, Brisbane, Australia
"The University of Arizona Mining Health and Safety Program"
Queensland Police Department, Brisbane, Australia December 4, 2003
"Adverse Health Effects from Exposure to Clandestine Methamphetamine Laboratories"
Australian and New Zealand Society of Occupational Medicine and December 4, 2003
Australasian Faculty of Occupational Medicine Queensland Branches, Brisbane, Australia
"Occupational Exposure to Smoke and Diesel Exhaust: Respiratory Effects"
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 April 4, 2006
"Physician Opportunities in Public Health"
University of Arizona Annual "HeadsUp" Retreat, Tucson, AZ August 15, 2006
"Pandemic Influenza: What We Need to Know"
Emerging Contaminants Workshop: Trace Chemical Contaminants March 2, 2007
in Water and Wastewater-Semiarid Perspectives, Phoenix, AZ
"Respiratory Effects of Low-Level Arsenic Exposure in Drinking Water"
19th Annual Phoenix Fire Department Health, Fitness & Safety Symposium June 27, 2007
Phoenix, AZ "Occupational Cancers & Exposures"
20th Annual Phoenix Fire Department Health, Fitness & Safety Symposium May 21, 2008
Phoenix, AZ "Cancer in the Fire Service"
21st Annual Phoenix Fire Department Health, Fitness & Safety Symposium June 24, 2009
Phoenix, AZ "Cancer in the Fire Service"
Institute for Mineral Resources October 17, 2009
Pathways to Sustainable Development Workshop Series, Tucson, AZ
"University of Arizona Mining Health and Safety Research"
5th Annual National Fallen Fire Fighter Benefit Dinner and Golf Tournament June 10, 2011
Firefighter Safety Seminar, Tucson, AZ
"Firefighter Cardiac Study Results and Implications"
University of Arizona Steward Observatory. MMT and LBTO September 26, 2011
Health and safety session, Tucson AZ
"Toxi-cans and Toxi-cants" presentation with IH student Jonathan Piakis
7th Annual Southern Arizona National Fallen Fire Fighter Association June 7, 2013
Fire Fighter Health/Safety Seminar, Tucson, AZ
"Fireground SOPs - Is there a relationship to firefighter injuries?"
Fire Department Safety Officers Association September 17, 2014
Annual Safety Forum, Scottsdale, AZ
"True cost of injuries"
National Institute of Environmental Health Sciences (NIEHS) April 13, 2015
Environmental Health Sciences (EHS) Core Centers and Training Directors' Meeting
Tucson, AZ, "Respiratory and Systemic Toxicity Markers of Low-level Arsenic Exposure"
Arizona Cancer Center Cancer Prevention and Control (CPC) Seminar May 4, 2016
Tucson, AZ "Opportunities for Partnerships with Fire Departments and Tribes around
Exposure Assessment and Effects"
UAHS Development Team Brown Bag Lunch Series May 16, 2016
"Occupational and Environmental Research: Opportunities for Community Based Studies"
Arizona House of Representatives Meeting on HB2161, Phoenix, AZ February 9, 2017
Testified on my research related to firefighters and cancer
Arizona Senate Meeting on HB2161, Phoenix, AZ March 20, 2017
Testified on my research related to firefighters and cancer

Environmental Health Seminar, University of Arizona, Tucson AZ March 29, 2017
"Firefighter Risk Management; Stops on the Road to Rouen"
UA/BIO5 Interdisciplinary Series on Biomedical Sensors and Diagnostics April 25, 2017
"Cancer Prevention in the Fire Service: Exposure Assessment, Toxic Effects and Risk Management" Tucson AZ
BIO5 Interdisciplinary Workshop & PAG/RTA Meeting, Tucson AZ April 26, 2017
"Risk Management Interventions to Reduce Fire Service Vehicle Crashes"
Tribal Environmental Health Sciences Forum Oct. 19, 2017
Gila River Indian Community, AZ
"Center for Indigenous Environmental Health Research"
2018 Fire Department Safety Officers Association (FDSOA) Apparatus Symposium
Scottsdale AZ "Apparatus Incident Risk Assessment" January 16, 2018
2018 Fire Department Safety Officers Association (FDSOA) Safety Forum, Scottsdale, AZ
"Strategies to Reduce Emergency Vehicle Crashes: Risk management, drivers' training, and telematics" January 17, 2018
Southern Arizona Safety Officers Association 2018 Safety Seminar September 20, 2018
"2014 FEMA Fire Service Cancer Study", Tucson, AZ
Mountain West Society of Toxicology Annual Meeting, Phoenix, AZ September 21, 2018
"Epigenetic Markers in Firefighters"
The University of Arizona Cancer Center Annual Scientific Retreat, Tucson, AZ
"DNA Methylation among Firefighters" September 28, 2018

National/International

Reviewer

Peer reviewer, United States Environmental Protection Agency (EPA) 1997 - 1998
Recognition and Management of Pesticide Poisonings
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 (CDC), Atlanta, GA 2003
Scientist Reviewer, NIOSH National Occupational Research Agenda (NORA) 2004
Peer Review, Small NORA
Reviewer, Third National Report on Exposure to Environmental Chemicals in Humans 2005
CDC
Reviewer, Australian Government National Health and Medical Research 2005
Council Project Grant Applications
Phase I Reviewer, NIEHS Superfund Basic Research and Training Program 2005
(SBRP) RFA ES-05-001
External Reviewer "Future Long Term Field Evaluation Concept for Self-Contained 2007
Self-Rescuers (SCSRs)"
NIOSH National Personal Protective Technology Laboratory
Project Technical Panel Member, Fire Fighter Respiratory Exposure Study 2007
The Fire Protection Research Foundation, NFPA
External Reviewer "Effect of Respirator Use on Carbon Dioxide and Oxygen Levels 2008
During Light and Moderate Work Rates"
NIOSH National Personal Protective Technology Laboratory
External Reviewer "A Case Study in Applied Social Marketing-Developing an 2008

Occupational Safety and Health Product"
NIOSH Spokane Research Lab

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
CDC 2009

Member, Scientific Review Committee, NIEHS RFA ES09-001 2009

Reviewer, 2009 Assistance to Firefighter Research Grant applications 2010
Dept. of Homeland Security (DHS), Federal Emergency Management Agency (FEMA)

Reviewer, National Survey of the Mining Population Information Circular Parts I and II 2010
NIOSH Office of Mine Safety and Health Research

Reviewer, 2010 Assistance to Firefighter Research Grant applications, DHS, FEMA 2011

Member, NIEHS Special Emphasis Review Panels, FOA PAR10-084 2011

Peer Reviewer, "Mine Rescue Ensembles for Underground Coal Mining" proposal 2011
NIOSH Personal Protective Technology Laboratory

Reviewer, 2011 Assistance to Firefighter Research Grant applications, DHS, FEMA 2012

Member, Scientific Review Committee, Alexandria, VA 2012
NIOSH World Trade Center Research RFA PAR-12-126

NIOSH Office of Mine Safety and Health Research, Technical Reviewer 2012
"Interpreting MSHA Citations through the Lens of Occupational Health and Safety Management Systems: Investigating their Impact on Mine Injuries and Illnesses 2003-2010"

Member, "PPDC 21st Century Toxicology/New Integrated Testing Strategies Workgroup Biomonitoring Subgroup" U.S. EPA 2013

Reviewer, 2012 Assistance to Firefighter Research Grant applications, DHS, FEMA 2013

Technical Reviewer, "Assessing the Safety Culture of Underground Coal Mining" 2013
NIOSH Office of Mine Safety and Health Research

Technical Reviewer, "CBRN Respiratory Protection Handbook" 2014
NIOSH National Personal Protective Technology Laboratory

Reviewer, 2013 Assistance to Firefighter Research Grant applications, DHS, FEMA 2014

Reviewer, 2014 Assistance to Firefighter Research Grant applications, DHS, FEMA 2015

Peer Reviewer, rhabdomyolysis educational documents for fire fighters and their health care providers, NIOSH Division of Surveillance, Hazard Evaluations, & Field Studies 2017

External Reviewer, "Nonfatal Injuries and Exposures to Fire Fighters Treated in U.S. Emergency Departments, 2003-2014", NIOSH Division of Safety Research 2017

Temporary Member, National Institute for Occupational Safety and Health Safety and Occupational Health (SOH) Study Section, Chicago, IL 10/30-11/1/2017

Reviewer, 2017 Assistance to Firefighter Research Grant applications, DHS, FEMA
Anniston, Alabama 5/16-17, 2018

Journal Reviews (since 2005)

American Journal of Industrial Medicine 2008 - 2011, 2013

American Journal of Respiratory and Critical Care Medicine 2017

Annals of Emergency Medicine	2008
Annals of Work Exposures and Health (formerly Ann Occup Hyg)	2015, 2017
Archives of Environmental and Occupational Health	2007, 2012, 2013
Asian Journal of Criminology	2012
British Medical Journal	2014
BMC Public Health	2013
BMC Women's Health	2012
Cytokine	2010, 2011
Environmental Health	2015
Environmental Research	2007, 2014
Environmental Science: Processes & Impacts	2015
Extreme Physiology and Medicine	2012
International Journal of Environmental Research and Public Health	2015
International Journal for Occupational and Environmental Health	2006
Journal of the American Medical Association (JAMA)	2005 - 2009, 2011, 2017
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, 2014, 2019
Journal of Occupational and Environmental Medicine	2012, 2013
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
Occupational and Environmental Medicine	2017
Safety and Health at Work	2014, 2015, 2017
Scandinavian Journal of Work Environment and Health	2010
Society for Mining, Metallurgy, and Exploration, Inc.	2009, 2010, 2013, 2015
The Tohoku Journal of Experimental Medicine	2007
Toxicological Sciences	2008, 2012

Section/Departmental Committees

Environmental Health Sciences Section/Program Admission Committee	1999 - present
Division Peer Review Committee	2000 - 2002, 2015

College Committees

Strategic Planning Committee, Arizona Prevention Center	1998 - 1999
Governance and Resources Committee, Arizona Prevention Center	1999 - 2000
Space Committee, College of Public Health	2000 - 2006
Ad hoc committee on Tobacco Industry Funding	2001 - 2002
Promotion and Tenure Committee member, College of Public Health	2002 - 2004
Search Committee, Epidemiology Associate/Full Professor	2005
MPH Admissions Committee/Reviewer	2006 - 2007
Undergraduate Education Workgroup	2007 - 2011
College of Public Health Dean Search Committee	2007 - 2008

Phoenix Planning Workgroup 2008
Search Committee, Health Promotion Sciences Division Director 2008 - 2009
Scientific Review Committee, Dean's Health Promotion Mini Grants 2011
Search Committee, Environmental Health Sciences Program 2015 - 2016
College Promotion and Tenure Committee 2015 - present

University Committees

Southwest Environmental Health Sciences Center, College of Pharmacy 1999 - 2003
Internal Advisory Committee
Arizona Health Sciences Center Bioterrorism Advisory Group 2001 - 2002
University of Arizona Preparedness Committee 2001 - 2002
Community Outreach and Education Program Internal Advisory Board 2004 - 2005
Southwest Environmental Health Sciences Center, College of Pharmacy
General Clinical Research Center Advisory Committee 2004 - 2005
University of Arizona Health Sciences Center
University of Arizona Institutional Chemical Safety Committee (Co-chair) 2004 - 2005
(Chairman) 2005 - 2007
Dean's Representative, Academic Advisory Committee 2005 - 2012
University of Arizona Water Sustainability Program
Reviewer, Arizona Clinical and Translational Research and Education 2007 - 2008
Consortium (ACTREC) Pilot Interdisciplinary Translational Research proposals
University of Arizona Campus Emergency Response Team 2007 - 2013
Selection Committee, CTSI Translational Position Hires 2011
Community Outreach and Education Core Stakeholder Advisory Board member
Reviewer, University of Arizona College of Pharmacy Graduate Programs 2011
Academic Program Review
University Distinguished Outreach Faculty Awards selection committee 2011 - 2013
Management Team, Southwest Environmental Health Sciences Center 2014 - present
University of Arizona Health Sciences Space Committee 2014 - present
Water, Energy & Sustainable Techology (WEST) Center 2015 - present
Faculty Advisory Committee
Co-Chair, Search Committee, College of Pharmacy Dean's Search 2016
Internal Advisory Board member, Institute of the Environment review 10/17-19/2018
Co-Chair, Search Committee, College of Nursing Dean's Search 2018

Interdisciplinary Associations

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

Other Committees

Clandestine Drug Laboratory Steering Committee 1994 - 1997
Washington State Department of Health
Metro Medical Strike Team Planning Committee 1997

City of Seattle/Seattle-King County Health Department

World Health Organization International Programme on Chemical Safety 1995 - 2001
Buenos Aires, Argentina November 1997
Dublin, Ireland June 1999
Cardiff, Wales March 2000
Geneva, Switzerland December 2001

Membership Committee member, American College of Medical Toxicology 1996 - 2003

Occupational and Clinical Toxicology Committee, 1997 - 1998
American College of Occupational and Enviromental Medicine

Emergency Response Planning Guideline Committee member 1998 - 2002
American Industrial Hygiene Association

ToxMedic State Advisory Board (Arizona) 1998 - 1999

Asthma Care Alliance of Southern AZ member (American Lung Association) 1998 - 2001

Core Group member, Drug Endangered Children 1999 - 2003
Arizona Attorney General's Office

Scientific Advisory Committee member, Advanced Hazmat Life Support 1999 - 2010
University of Arizona Emergency Medicine Research Center, Tucson, AZ

Consensus Panel member, Evidence-Based Consensus Guidelines for the 1999 - 2004
Treatment of Weapons of Mass Destruction Victims
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/NIOSH
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 2006 - 2007
The National Academies/National Research Council, Washington, D.C.

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
Association of Schools of Public Health (ASPH)/CDC Centers for Public Health Preparedness

Working Group Member, Volume 98: Fire-fighting, painting and shiftwork Oct. 2-9, 2007
International Agency for Research on Cancer (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. EPA, Washington D.C.

Invited participant, Database Systems Meeting Dec. 4, 2008
Federal Emergency Management Agency/Assistance to Firefighter Grants, Wash. D.C.
Invited participant, NIOSH Structural Fire Fighter Exposure Workshop Oct. 28, 2009
Also presentation "Overhaul Exposures: What we know and need to know", Cincinnati, OH
Invited participant, 2nd 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) 2012 - 2016
Member, Fire Protection Research Foundation (FPRF) Board of Trustees 2013 - 2018
(also FRPF Research Agenda Steering Committee member during 2017)
Member, Fire Service Occupational Cancer Alliance 2015 - present
National Fallen Firefighters Foundation
Invited participant, National Fire Service Research Agenda Symposium Nov. 16-19, 2015
Arlington, VA
Member, Mine Safety and Health Research Advisory Committee 2016 - present
National Institute for Occupational Safety and Health
Invited Participant, National Academies of Sciences, Engineering, and Medicine
A Conversation for Informing the NIOSH Miner Health Program
Washington, DC Mar. 23, 2018

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* 2nd 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* 2nd 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* 2nd 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* 2nd edition, Mosby, Philadelphia, PA. 2003:746-765.
8. **Burgess JL**. Fumigants. In: Dart RC, Caravati EM, McGuigan MA, et al. (eds.) *Medical Toxicology* 3rd 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* 3rd 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**, Dart RC. Snake venom coagulopathy: use and abuse of blood products in the treatment of pit viper envenomation. *Annals of Emergency Medicine*. 1991; 20(7):795-801. PMID: 2064103.
2. **Burgess JL**, Dart RC, Egen NB, Mayersohn M. Effects of constriction bands on rattlesnake venom absorption: a pharmacokinetic study. *Annals of Emergency Medicine*. 1992; 21(9):1086-1093. PMID: 1514719.
3. **Burgess JL**, Bernstein JN, Hurlbut K. Aldicarb poisoning. A case report with prolonged cholinesterase inhibition and improvement after pralidoxime administration. *Archives of Internal Medicine*. 1994; 154:221-224. PMID: 8285817.
4. **Burgess JL**, Crutchfield CD. Tucson fire fighter exposure to products of combustion: A risk assessment. *Applied Occupational and Environmental Hygiene*. 1995; 10:37-42. https://doi.org/10.1080/1047322X.1995.10387609
5. **Burgess JL**, 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. https://doi.org/10.1080/1047322X.1995.10387608
6. Morrissey B, **Burgess JL**, Robertson WO. Washington's experience and recommendations Re: Anticoagulant rodenticides. *Veterinary and Human Toxicology*. 1995; 37(4):362-363. PMID: 8540230.
7. **Burgess JL**, Barnhart S, Checkoway H. Investigating clandestine drug laboratories: adverse medical effects in law enforcement personnel. *American Journal of Industrial Medicine*. 1996; 30(4):488-494. PMID: 8285817.
8. **Burgess JL**, Keifer MC, Barnhart S, Richardson M, Robertson WO. Hazardous materials exposure information service: development, analysis, and medical implications. *Annals of Emergency Medicine*. 1997; 29(2):248-254. PMID: 9018191.
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(8):760-766. PMID: 9273880.
10. **Burgess JL**, Blackmon GM, Brodkin CA, Robertson WO. Hospital preparedness for hazardous materials incidents and treatment of contaminated patients. *The Western Journal of Medicine*. 1997; 167(6):387-391. PMID: 9426476.
11. Elko CJ, **Burgess JL**, Robertson WO. Zolpidem-associated hallucinations and serotonin reuptake inhibition: a possible interaction. *Journal of Toxicology: Clinical Toxicology*. 1998; 36(3):195-203. PMID: 9656974.
12. **Burgess JL**, Hamner AP, Robertson WO. Sulfhemoglobinemia after dermal application of DMSO. *Veterinary and Human Toxicology*. 1998; 40(2):87-89. PMID: 9554060.
13. **Burgess JL**, Brodkin 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*. l999;159:119-124. PMID: 9872828.
14. **Burgess JL**. Hospital evacuations due to hazardous materials incidents. *American Journal of Emergency Medicine*. 1999;17:50-52. PMID: 9928700.

15. 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(1):42-46. PMID: 9949487.
16. **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(3):194-197. PMID: 10441258.
17. **Burgess JL**, Kirk MA, Borron SW, Cisek J. Emergency department hazardous materials protocol for contaminated patients. *Annals of Emergency Medicine*. 1999; 34(2):205-212. PMID: 10424922.
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(1):7-14. PMID: 10696918.
19. **Burgess JL**, Kovalchick DF, Harter L, Kyes K, Thompson J. Hazardous materials events: an industrial comparison. *Journal of Occupational and Environmental Medicine*. 2000; 42(5):546-553. PMID: 10824307.
20. †Bolstad-Johnson DM, **Burgess JL,** Crutchfield CD, Storment SB, Gerkin RD, Wilson JR. Characterization of firefighter exposures during fire overhaul. *American Industrial Hygiene Association Journal*: *A Journal for the Science of Occupational and Environmental Health and Safety*. 2000; 61(5):636-641. PMID: 11071414.
21. **Burgess JL**. Phosphine exposure from a methamphetamine laboratory investigation. *Journal of Toxicology: Clinical Toxicology*. 2001; 39(2):165-168. PMID: 11407503.
22. **Burgess JL**, Kovalchick D, Harter L, Kyes KB, Lymp JF, Brodkin CA. Hazardous materials events: evaluation of transport to health care facility and evacuation and decisions. *American Journal of Emergency Medicine*. 2001; 19(2):99-105. PMID: 11239250.
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(5):467-473. PMID: 11382182.
24. **Burgess JL**, Kovalchick D, Lymp JF, Kyes KB, Robertson WO, Brodkin CA. Risk factors for adverse health effects following hazardous materials incidents. *Journal of Occupational and Environmental Medicine*. 2001; 43(5):558-566. PMID: 11411329.
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Serum matrix metalloproteinase-9 in children exposed to arsenic from playground dust at elementary schools in Hermosillo, Sonora, Mexico. *Environmental Geochemistry and Health* (accepted).

Other Publications

Abstracts (peer reviewed, not otherwise published)

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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.
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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.
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4. **Burgess JL**. Methamphetamine labs: Community risks and public health responses. *Washington Public Health* Fall 1997:27-29.
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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.

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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, Bevelaqua 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 "Assessment of Mercury Exposure in a Nevada School-2004". *Clinical Toxicology* 2007; 45:431. https://doi.org/10.1080/15563650601033417
12. Chico-Jarillo TM, **Burgess J**, Granillo B. Editorial "Strategies from American Indian and Alaska Native Community Partners on Effective Emergency Response Collaboration". *American Journal of Public Health*. 2018;108(S5):S366–S368
13. Arora M, Granillo B, Zepeda TK, **Burgess JL**. Editorial "Experiential Adult Learning: A Pathway to Enhancing Medical Countermeasures Capabilities". *American Journal of Public Health*. 2018;108(S5):S378–S380.

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. Gowrisankaran G, He C, Lutz EA, Burgess JL. Productivity, safety, and regulation in coal mining: Evidence from disasters and fatalities. NBER Working Paper 21129. (Submitted to *The Review of Economics and Statistics* in consideration for publication.)
3. Griffin SC, Regan TL, Harber PI, Lutz EA, Hu C, **Burgess JL**. Injury and workers' compensation claims in the U.S. fire service. (in preparation)
4. Griffin SC, Regan TL, Harber PI, **Burgess JL**. Modeling occupational back injury and compensation costs in emergency medical services personnel following implementation of electrically powered stretchers. (in preparation)

Scholarly Presentations (since 1997)

Invited Speaker

Conferencia Latinoamericana Sobre Accidentes Químicos — November 20, 1997
Buenos Aires, Argentina
"El servicio de información para Materiales Peligrosos" (in Spanish)

Conference on Lifesaving Intervention — March 31, 1998
National Disaster Medical System Denver, CO
"Treatment Protocols & Pharmaceuticals"

Risk Assessment in Chemical Emergencies — July 1, 1998
Rotterdam, The Netherlands
"Definition and application of additional risk assessment information"

American College of Medical Toxicology — September 30, 1999
Burning Issues in Medical and Fire Toxicology, San Diego, CA
"Respiratory Effects of Smoke Inhalation"

International Association of Fire Fighters September 25, 2001
16th John P. Redmond Symposium, Phoenix, AZ
"Study of Fire Fighter Exposure During Overhaul Operations"

Clandestine Laboratory Investigating Chemists Association, New Orleans, LA Sept. 6, 2002
"Adverse Health Effects in Clandestine Drug Lab Investigators"

Association of Schools of Public Health, Pittsburgh, PA September 9-10, 2002
Responding to a New Environment: Emergency Response at Schools of Public Health
"Fire Fighters: Respiratory Protection and Lung Injury"
"Chemical/Hazardous Materials Emergencies"

Center for Research on Occupational and Environmental Toxicology December 9, 2002
CROET Seminar Series, Portland, OR
"Inhalation toxicology: new biomarkers of inflammation and gene expression"

National Institute for Occupational Safety and Health May 30, 2003
Pittsburgh Research Laboratory Colloquium, Pittsburgh, PA
"The University of Arizona Mining Health and Safety Program"

Nominated Medical Advisors Meeting, Health Surveillance Unit November 18, 2003
Queensland Government Natural Resources and Mines, Brisbane, Australia
"The University of Arizona Mining Health and Safety Program"

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

Australian and New Zealand Society of Occupational Medicine and December 4, 2003
Australasian Faculty of Occupational Medicine Queensland Branches, Brisbane, Australia
"Occupational Exposure to Smoke and Diesel Exhaust: Respiratory Effects"

Queensland Police Department, Brisbane, Australia December 4, 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 Seminar Series, Beijing, China June 3, 2005
"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 4th 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"

Washington Poison Center, Seattle, WA July 27, 2006
"Hazardous Materials Incidents"

Arizona Public Health Association 78th Annual Meeting, Tempe, AZ September 14, 2006
Plenary Session "Future of Environmental Health"

Keynote Speaker, 10th 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/)

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 29th 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, LA
"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"

Institute of Occupational Medicine, Edinburgh, Scotland September 3, 2014
"Comparison of Acute Health Effects from Use of Diesel and Biodiesel Fuels"

International Association of Fire Fighters March 8, 2015
Toxic Flame Retardants and the Health Impacts on Fire Fighters, Washington DC
"Firefighter Breast Milk and Serum"

International Association of Fire Fighters Redmond Symposium August 28, 2015
Emergency Vehicle Safety workshop, National Harbor, MD
"Vehicle Data Recorders and Other Technology – Big Brother or Best Friend?"

Society for Mining, Metallurgy & Exploration (SME) Annual Meeting, Phoenix Feb. 23, 2016
"Risk Management of DPM: Use of Alternative Fuels"

National Fire Protection Association, Quincy, MA March 17, 2016
"Proposal to expand NFPA leadership in fire service risk management (RM) through the development of standards-based activity guidelines"

Harvard Environmental Health Colloquium Series, Boston, MA March 17, 2016
"Center for Indigenous Environmental Health Research (CIEHR): Evaluation of Exposure from Diet and Coal Burning Stoves in American Indian Tribes"

COST MP1105 Fire Toxicity Conference, Preston, United Kingdom March 22, 2016
"Toxicity of Fire Effluents to Firefighters"

NIOSH NORA Public Safety Sector meeting, Washington DC (called in) June 8, 2016
"The prospective multicenter firefighter cancer cohort study: Framework development"

Institute of Occupational Medicine, Edinburgh, Scotland July 22, 2016
"Proactive risk management in the European fire service: Required but not widely practiced?"

Symposium CPH 2016, Copenhagen, Denmark October 26, 2016
Focus on work environment and occupational safety for firefighters

"Cancer Prevention in the Fire Service: Exposure Assessment, Toxic Effects & Risk Management"

Work environment and occupational safety for firefighters: Copenhagen, Denmark Oct. 27, 2016
Psychological damage, cancers, prevention and preventive legislation
"Cancer in the Fire Service: Epidemiology, Exposures, Toxic Effects and Risk Management"

Presentation to the Brandweer Zone Antwerpen, Antwerp, Belgium Nov. 18, 2016
"Proactive risk management in the European fire service: Identification of best practices"

Society for Mining, Metallurgy & Exploration (SME) Annual Meeting, Denver Feb. 22, 2017
Panel member, "Health and Safety: Open Forum for the Future of the Mining Safety and Health Research Agenda"

A. Michael Mullane Health and Safety Symposium, Boston MA May 19, 2017
"The Fire Fighter Cancer Cohort Study"

Préventica Conference, Paris, France June 21, 2017
Session on technical and organizational innovations and health and quality of life at work for firefighters: The example of chemical risk
"Risque de cancer des services incendies aux États-Unis" (in French)

Fire Service Joint Labor Management Wellness-Fitness Initiative Task Force June 29, 2017
"Fire Fighter Exposures: Cancer Prevention Studies" Miami, FL

Fire Service Occupational Cancer Alliance Fire Service Occupational Cancer Symposium
"Where are we going? An overview of current research" Phoenix, AZ September 7, 2017

Instituto Tecnológico de Sonora Workshop: Environmental arsenic in south Sonora: Biomarkers and health implications in children of the Yaqui community. September 28, 2017
"Arsenic Biomarkers", Ciudad Obregon, Sonora, Mexico

International Association of Fire Fighters Cancer Summit February 1, 2018
"Long-term Fire Fighter Cancer Cohort Study (FFCCS)" Lake Buena Vista, FL

Firefighter Cancer Conference, Reykjavic, Iceland March 15, 2018
"Exposures and Cancer in the Fire Service: Studies from the States (and elsewhere)"

International Fire Service Journal of Leadership and Management 2018 Research Symposium
Keynote Address "Fire and Emergency Medical Services Risk Management in the European Union: Case Studies and Best Practices" Tulsa, OK July 21, 2018

Southern Area Fire Equipment Research (SAFER) August 17, 2018
"Exposure Reduction Interventions and Fire Fighter Cancer Cohort Study" Irvine, CA

Colorado State University Health and Exercise Science Graduate Seminar Series Sept. 14, 2018
"Partnering with Fire Departments to Reduce Exposures and Health Risks" Fort Collins, CO

Préventica Conference, Bordeaux, France October 4, 2018
Session sur Prévention, Risque Chimique et Toxcité des Fumées
"Prévention du cancer dans les services d'incendie: expositions, effets dur la santé et interventions" (in French)

Florida Fire Chief's Association Safety & Health Conference, Orlando, FL December 10, 2018
"Current Research on Firefighter Exposures Related to Occupational Cancer"

Other Conference Presentations (*peer reviewed)

American Academy of Clinical Toxicology Preconference Symposium September 11, 1998
State-of-the-Art Preparedness and Response for Hazardous Materials Incidents, Orlando, FL
"Poison center response to hazardous materials incidents: The Washington state experience" and "Hazmat exposure assessment"

American College of Occupational & Environmental Medicine October 21, 1998
State of the Art Conference, Phoenix, AZ
"Longitudinal decline in firefighter DLCO measurements: A respiratory surveillance dilemma"

European Association of Poison Centres and Clinical Toxicologists June 23, 1999
XIX International Conference, Dublin, Ireland
"Health effects of hazardous materials exposures: A prospective study in Washington State"

International Congress on Occupational Health August 31, 2000
26th International Conference, Singapore
"Chemical incidents: health effects and medical treatment"

North American Conference of Clinical Toxicology September 15, 2000
2000 Annual Meeting, Tucson, AZ
"Adverse respiratory effects following overhaul in firefighters" and "Medical surveillance of clandestine drug lab investigators"

American Academy of Clinical Toxicology Preconference Symposium October 4, 2001
Occupational Pulmonary Toxicology: Recent Advances in Evaluation, Diagnosis, Treatment and Prevention of Workplace Outbreaks of Respiratory Illness, Montreal, Québec, Canada
Conference organizer and moderator, included case presentation "Case Studies in Workplace Outbreaks of Respiratory Illness"

North American Conference of Clinical Toxicology October 8, 2001
2001 Annual Meeting, Montreal, Québec, Canada
Session moderator "AACT Occupational and Environmental Symposium: Teratology Primer for Poison Control Centers"

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"

* 27th International Congress on Occupational Health, Iguassu Falls, Brazil February 27, 2003
"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 Tracheobronchal 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
*"Tracheobronchal 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"

* 28th International Congress on Occupational Health, Milan, Italy June 12, 2006
"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)

Urban Fire Forum, Metro Fire Chiefs, Quincy MA October 21, 2011
"Fireground Injuries: An International Comparison of Causes and Best Practices"

*International Society of Exposure Science, Cincinnati, OH October 13, 2014
"Comparison of Diesel and Biodiesel Exhaust: Acute Human Health Effects"

*31st International Congress on Occupational Health, Seoul, South Korea June 1, 2015
"Implementing Risk Management to Reduce Injuries in the U.S. Fire Service"

*International Society of Exposure Science, Utrecht, Netherlands October 10, 2016
"Cancer Prevention in the Fire Service: Exposure Assessment, Toxic Effects and Risk Management"

FDIC International, Indianapolis, IN April 25, 2018
"Strategies to Reduce Emergency Vehicle Crashes"

* International Congress on Occupational Health (ICOH) 2018, Dublin, Ireland
"Use of Urinary Biomarkers and Bioassays to Evaluate Chemical Exposure and Activation of Cancer Pathways in Firefighters" May 1, 2008
"The Firefighter Multicenter Cancer Cohort Study: Framework Development and Testing" May 3, 2018

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, $677,809/yr direct

NIEHS Center for Toxicology: Southwest Environmental Health Sciences Center 1999 - 2004
(PI: Liebler) Investigator, $842,299/yr direct

NIOSH Special Emphasis Research Career Award (K01) 1998 - 2001
PI, Project: Biomarkers of smoke exposure among firefighters. $150,000 direct

EPA "EMPACT" grant with Pima Department of Environmental Quality 1999 - 2001
Investigator, 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, Project: "International Program for Mining Health and Safety". $583,315

National Institute for Environmental Health Sciences 2001 - 2002
Admin. Supplement to the Southwest Environmental Health Sciences Center (PI: Liebler)
Project leader, Project: "Alterations in Epithelial Cell Gene Expression Following Environmental Arsenic Exposure". $100,000 direct

U.S. Army Medical Research and Materiel Command 2002 - 2007

Peer Reviewed Medical Research Program
PI, Project: "Acute Lung Injury Following Smoke Inhalation: Predictive Value of Sputum Biomarkers and Time Course of Lung Inflammation". $1,268,730

National Institute for Environmental Health Sciences 2002 - 2005
Community Based Prevention Intervention Research Core (part of Hazardous Waste Risk and Remediation in the Southwest grant, PI: Gandolfi)
PI, Project: "Changes in Epithelial Cell Gene Expression Associated with Reduction in Drinking Water Arsenic". $562,822

National Institute for Environmental Health Sciences 2002 - 2005
Admin. Suppl. to Hazardous Waste Risk and Remediation in the Southwest (PI: Gandolfi)
Project leader, epidemiology subproject: "University of Arizona-Dartmouth Collaborative Studies on Arsenic Toxicity". $35,000 direct

National Institute for Nursing Research, NIH 2003 - 2008
Sponsor for predoctoral training grant (Mary Derby, RN, MPH) "Enhanced Foodborne Surveillance Application to Nursing". $137,626

National Institute for Occupational Safety and Health 2004 - 2007
PI, Project: "International Evaluation of Injury Rates: A Comparison of Risk and Compliance Based Regulatory Approaches". $62,300 over three projects

National Cancer Institute, NIH 2004 - 2007
(PI: Martinez) Co-investigator, Project: "Arsenic Effects on Colon Cancer"
Supplement to SPORE Grant in Gastrointestinal Cancer. $1,356,013

U.S. Environmental Protection Agency 2005 - 2009
(PI: Lantz) Investigator, Project: "Pulmonary Biomarkers Based on Alterations in Protein Expression Following Exposure to Arsenic". $726,652

National Institute for Occupational Safety and Health 2005 - 2006
PI, Project: "Development of Test Methods for Evaluating Air Purifying Respirator Cartridges for Firefighting Operations". $50,000

Centers for Disease Control and Prevention/Association of Schools of Public Health 2005 - 2010
PI, Project: "Arizona Center for Public Health Preparedness". $3,548,573

National Cancer Institute, NIH 2006 - 2007
Pilot project within the Native American Cancer Research Partnership (PI: Canfield)
Co-leader, Project "Occupational Carcinogenic Exposures in Native American Firefighters". $38,746 direct

National Institute for Occupational Safety and Health 2008 - 2009
PI, Project: "Development of a Severe Injury Surveillance System for Hazard Identification and Guiding Technological Interventions". $370,610

Federal Emergency Management Agency 2008 - 2010
PI, Project: "Determination of Risk Factors for Cardiovascular Disease in Firefighters". $1,000,000

U.S. Environmental Protection Agency 2008 - 2011
PI, 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, Project: "Fireground Injuries: An International Evaluation of Causes and Best Practices" $1,000,000

National Institute for Occupational Safety and Health 2009 - 2013
PI, Project: "Implementing Risk Management Strategies to Prevent Injuries among Firefighters" $1,352,731

National Institute for Occupational Safety and Health 2009 - 2023
Occupational Safety & Health Training Program Grants (T01)
PI, Project: "Graduate Industrial Hygiene Program Grant, University of Arizona" $1,278,145

U.S. Army Medical Research and Materiel Command 2009 - 2019
Awarded to the American Burn Association, subawarded the Arizona Burn Center
(PI: Foster) Investigator, 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, Project: "Firefighter Statin Trial: Reducing Atherosclerotic Disease and Risk Factors" $1,000,000

National Institute for Occupational Safety and Health 2010 - 2014
MPIs: Poulton and Burgess, Project: "Western Mining Safety and Health Resource Center" $1,618,834

Centers for Disease Control and Prevention 2010 - 2015
PI, Project: "Mountain West Preparedness and Emergency Response Learning Center" $4,688,285

National Institute for Occupational Safety and Health 2012 - 2015
PI, Project: "Comparison of Diesel and Biodiesel Emissions and Health Effects in Underground Mining" $1,419,061

Centers for Disease Control and Prevention 2013 - 2016
PI, Project: "Whole Community Inclusive Emergency Planning" $600,000

FEMA Assistance to Firefighters Grant Program - Fire Prevention and Safety 2014 - 2017
PI, Project: "Risk Management Interventions to Reduce Vehicle-related Incidents and Fatalities" $1,406,451

National Institute for Occupational Safety and Health 2014 - 2017
(PI: Poulton) Investigator, Project: "Western Mining Safety and Health Resource Center: Translating Training to Competency" $1,385,390

FEMA Assistance to Firefighters Grant Program - Fire Prevention and Safety 2015 - 2018
PI, Project: "Cancer Prevention in the Fire Service: Exposure Assessment, Toxic Effects and Risk Management" $1,500,000

National Institute of Environmental Health Sciences/Environmental Protection Agency
PI, Project: "Center for Indigenous Environmental Health Research" $5,000,000 2015 - 2020

Association of Schools and Programs of Public Health/ 2016 - 2017
Centers for Disease Control and Prevention

PI, Project: "Building an Effective Tribal and Multijurisdictional Response Network to Improve Preparedness and Response" $1,080,356

FEMA Assistance to Firefighters Grant Program - Fire Prevention and Safety 2016 - 2019
PI, Project: "The Firefighter Multicenter Cancer Cohort Study: Framework Development and Testing" $1,500,000

FEMA Assistance to Firefighters Grant Program - Fire Prevention and Safety 2017 - 2019
(PI: Jahnke) PI for subcontract ($386,993) to evaluate firefighter breastmilk, Project: "Health and Wellness of Women Firefighters"

National Institute for Occupational Safety and Health 2017 - 2020
PI, Project: "Western Mining Safety and Health Training Resource Center: An Integrated Approach" $1,458,000

National Institute for Occupational Safety and Health 2018 - 2021
PI, Project: "Alternative Fuel Use to Reduce Diesel Emissions Exposure and Toxicity in Mining" $1,774,872

FEMA Assistance to Firefighters Grant Program - Fire Prevention and Safety 2018 - 2021
(PI: Caban-Martinez) PI for subcontract ($407,360) to evaluate epigenetic markers, Project: "Expansion of the Fire Fighter Cancer Cohort Study: Arson Investigators, Instructors, Volunteers, and Wildland-Urban Interface Firefighters"

National Institute for Environmental Health Sciences 2018 - 2019
Admin. Suppl. to Southwest Environmental Health Sciences Center (PI: Cherrington)
Project lead: "Polyfluoroalkyl substances (PFAS) Exposures and Epigenetic Markers in Firefighters" $76,750

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, Project: Serum Biomarkers of Lung Injury Among Police. $7,500 direct

Arizona Department of Health Services 1999 - 2000
PI, Project: Hayden Winkelman Lead and Arsenic Survey. $102,773

University of Southern California/NIOSH ERC Pilot Project Grant 1999 - 2000
PI, Project: Use of Airway Macrophages as Biomarkers of Genotoxic Exposure. $14,981

Southwest Environmental Health Sciences Center Pilot Project Grant (matching) 2000 - 2001
PI, 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, 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, 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, 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, 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, Advisor to Arun Joysula, Project: Pulmonary Inflammation and Longitudinal Decline in Lung Function. $17,712

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

Southwest Environmental Health Sciences Center Pilot Project Grant 2007 - 2008
PI, 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, 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, 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, Project: Training Workshop for AZ Public Health Preparedness. $40,000

Science Foundation of Arizona 2009 - 2013
(PI: Poulton) Co-PI, 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, 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, Project: Implementation of Risk Management Programs: Identification of Best Practices to Reduce Injuries and Maximize Economic Benefits. $669,208

Fulbright Schuman European Union Award 2016
PI, The purpose of this project was to conduct policy-related research on health and safety programs for the fire service. €20,000 (euros)

International Association of Fire Fighters 2018 - 2019
PI, Project: Analysis of Fire Fighter Blood Specimens for Per- and Polyfluoroalkyl Substances (PFAS). $70,560

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: _____