

CURRICULUM VITAE

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EDUCATION AND TRAINING

Undergraduate

1973-76	University of Essex UK	BSc (Hon) 1976	Biological Chemistry
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Graduate

1976-79	University of Essex UK	PhD 1981	Chemistry (Michael T Wilson)
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Post-Graduate

1980	University of Essex UK	Postdoctoral Fellow	Electrochemistry (Jack Silver)
1981-85	University of East Anglia UK	Senior Post-doctoral Fellow	Spectroscopy (Andrew J Thomson & Colin Greenwood)
1986-88	University of Minnesota MN	Postdoctoral Associate	Biophysics (Edmund P Day & Eckard Münck)

APPOINTMENTS AND POSITIONS

Academic

1979	Chemistry Teacher	The Gilbert School, Colchester UK
1980	Chemistry & Physics Teacher	Copford International College, Colchester UK
1988-96	Assistant Professor of Chemistry	The University of Alabama, Tuscaloosa AL
1996-2004	Special Faculty in Chemistry	Carnegie Mellon University, Pittsburgh PA

2004-	Associate Professor of Environmental & Occupational Health	University of Pittsburgh, Pittsburgh P
2004-	Adjunct Associate Professor of Chemistry	Carnegie Mellon University, Pittsburgh PA

MEMBERSHIP IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

1980s (~5 years)	Royal Society of Chemistry
1980s (~5 years)	Biochemical Society
1990s (~10 years)	American Chemical Society
2006-12	Radiation Research Society
2011-20	American Chemical Society

PROFESSIONAL ACTIVITIES

Teaching Courses Taught

Years Taught	Course Number: Title	Hours of Lecture, credits Average Enrollment	Primary Instructor?
1988, 1995	101 General Chemistry (Alabama)	45 hrs, 4 credits, ~125 students	Yes
1989-96	424 Instrumental Analysis (Alabama)	120 hrs, 4 credits, ~10 students	Yes
1989-96	521 Analytical Chemistry Survey (Alabama)	30 hrs, 3 credits, ~5 students	Yes
1989-96	223 Quantitative Analysis (Alabama)	45 hrs, 3 credits, ~20 students	Yes
1990, 1992, 1994	524 Analytical Spectroscopy (Alabama)	45 hrs, 3 credits, ~10 students	Yes
1991, 1993	581 Physical Biochemistry (Alabama)	45 hrs, 3 credits, ~5 students	Yes
1994-95	102 General Chemistry (Alabama)	45 hrs, 4 credits, ~75 students	Yes
1996	09-348 Inorganic Chemistry (CMU)	45 hrs, 3 credits, ~45 students	Yes
2006, 2012-	EOH 2122 Transport & Fate of Environmental Agents	15 hrs, 3 credits. 15 students	Yes

Years Taught	Course Number: Title	Hours of Lecture, credits Average Enrollment	Primary Instructor?
2006-09	EOH 2309 Bioorganic Toxicology	45 hrs, 3 credits, ~30 students	Yes
2007, 2010	EOH 2313 Bioinorganic Toxicology	45 hrs, 3 credits, 5 students	Yes
2010-	EOH 2309 Environmental Health Chemistry	5 hrs, 3 credits, 15 students	No
2010-	EOH 2313 Special Topics in Bioinorganic Chemistry	30 hrs, 2 credits, 2 students	Yes
2019-	EOH 2504 Principles of Environmental Exposure	45 hrs, 3 credits, 8 students	Yes

Major Advisor for Graduate Student Essays, Theses, and Dissertations

Name of Student	Degree Awarded, Year	Type of Document and Title	Notes
Qinyun Peng	1994	Dissertation (PhD): "Near-Infrared Magnetic Circular Dichroism of Unusual Hemes."	Alabama
Karen E Rogers	1995	Dissertation (PhD): "Inclusion Studies of p-Sulfonatocalix[4]arene in Solution and in the Solid State."	Alabama
Angela D Carraway	1995	Dissertation (PhD): "N-Acetylated Heme Peptides - Models for Hemoproteins."	Alabama
Susamma Mathew	1995	Seminar/paper (MS): "Manganese and 'Pinnaglobin' in Pinna nobilis."	Alabama, no thesis required
Roderick B Daniels	1996	Seminar/paper (MS): "The Electrochromic Behavior of Lanthanide Bisphthalocyanines."	Alabama, no thesis required
David E Holm	1996	Dissertation (PhD): "A Comparative Study of Shark and Beef Cytochrome c Oxidases."	Alabama
Pornsri ("Lek") Khlangwiset	2007	Essay (MPH): "The Renewed Threat to Public Health Posed by Ionizing Radiation."	

Name of Student	Degree Awarded, Year	Type of Document and Title	Notes
Brian K Blashich	2008	Essay (MPH): "Improving worker Health and Safety at Future Disaster Sites."	
Mai Otsuka	2008	Thesis (Accelerated MS): "Characterization of the Reactivity of Nitrihemoglobin."	Carnegie Mellon
Lara M Huyler	2008	Essay (MPH): "A Critique of Occupational Ionizing Radiation Regulations in the United States."	
Shannon E Raub	2009	Essay (MPH): "A Discussion on the Effect of Ionizing Radiation on Plants and Subsequent Consequences to Public Health."	
Patrick P Kerr	2010	Essay (MPH): "Post-translational Modification of Complex I by X-ray Irradiation – A Possible Link to Oxidative Stress."	
Charles ("Chuck") Tomljanovic	2011	Essay (MPH): "The Development of Improved Conceptual Site Models to Prevent Exposure to Chemical and Safety Hazards Caused by Conflict Related Unexploded Ordnance (UXO)."	
Timothy M Knapp	2011	Essay (MPH): "Leading Indicators – a New Approach to Occupational Health and Safety Compliance."	
Dolores A Kirschner	2011	Essay (MPH): "Migraine is not just a Headache, It's a Disabling Headache Disorder."	
Elisenda Lopez Manzano	2011	Dissertation (PhD): "Peroxynitrite and Mitochondrial Cytochromes"	
Brett Tunno	2011	Essay (MPH): "Historical Perspective on Air Pollution and a Focus on Pittsburgh's Past Versus Present."	
Xi Zheng	2011	Essay (MPH): "Radiation and Public Health."	

Name of Student	Degree Awarded, Year	Type of Document and Title	Notes
Oscar S Benz	2012	Dissertation (PhD): "CobaltIII Macrocycles as Possible Cyanide Antidotes"	
Megan A. Allison	2013	Essay (MPH): "Occupational Hazards in Onshore Upstream Unconventional Natural Gas Extraction."	
Wen Yu ("Lulu") Chen	2013	Essay (MPH): "Effects of Nitrite in Groundwater."	
Ben Guo	2014	Essay (MPH): "Cold Inducible RNA-binding Protein (CIRBP) Function in Acrolein Induced Acute Lung Injury."	
Ditian Yang	2014	Essay (MPH): "The Tobacco-specific Nitrosamines from Thirdhand Tobacco Smoke as a New Concern to Public Health."	
Yi Chen	2014	Essay (MPH): "Cadmium Exposure and Liver Disease."	
Leah K Cambal	2015	Dissertation (DrPH): "An Appraisal of NOx Passive Sampling."	
Heng Bai	2015	Essay (MPH): "Nuclear Technology Safety and Prevention of Radioactive Terrorism."	
Weijia Cheng	2015	Essay (MPH): "Road Traffic Noise and Public Health Effects."	
Hejing Cui	2015	Essay (MPH): "Biomass Energy and Human Health."	
Qingqing He	2015	Essay (MPH): "Safety Assessment of the Bacillus thuringiensis Transgenic Rice Expressing CryIc Protein in China."	
Racquel Segall	2015	Essay (MPH): "The Effects of Social Factors and Environmental Neurotoxicity on Higher Crime Rates."	

Name of Student	Degree Awarded, Year	Type of Document and Title	Notes
Kendra Sutherland	2015	Essay (MPH): "Antimicrobial Resistance in Agriculture and Its Effects on Human Health."	
Lauren K Tibbens	2015	Essay (MPH): "Formaldehyde Exposure in the Indoor Environment."	
Humza Ahmed	2015	Thesis (BS): "Synergistic Effects of Cadmium and Lead on Undifferentiated Neuro-2a Cells."	
Hirunwut Praekunatham	2016	Essay (MPH): "Epidemic Spastic Paraparesis (Konzo): The Putative Toxicant, Determinants and Contributing Factors."	
Sara B Brooks	2016	Essay (MPH): "The Intersection of the Occupational Safety and Health Act and the Environmental Protection Act: An Examination of National Emission Standards for Hazardous Air Pollutants."	
Ya-Chun Chang	2016	Essay (MPH): "Environmental Phthalates Exposure is Related to Male Infertility and Other Health Endpoints in U.S. and Taiwan."	
Xilin Chen	2016	Essay (MPH): "Child Food Insecurity in the United States Associated with Children's Health Status."	
Swetha Thambireddy	2016	Essay (MPH): "Cl2 Exposure: An Analysis of Respiratory Health Effects and Potential Threat of Chemical Terrorism."	
Shannon M Kearney	2016	Dissertation (DrPH): "Moderating Effects of Environmental Health Exposures and Medication Adherence: Models for Improved Adherence."	

Name of Student	Degree Awarded, Year	Type of Document and Title	Notes
Samantha Malone Rubright	2017	Dissertation (DrPH): "Cyanide and Hydrogen Sulfide: Two Blood Gases, Their Environmental Sources, and Potential Risks."	
Fangchen Yu	2017	Essay (MPH): "Toxicological Effects of Cadmium and Lead During Pregnancy – in Tobacco Smoke, Secondhand Smoke and Thirdhand Smoke."	
Chen Liu	2017	Essay (MPH): "Conventional Mining Emission of Methane and Contributions to Regional Global Warming in Northeastern Cities in China."	
Erin P Straw	2017	Essay (MPH): "Polymers to Pollution: An Examination of Polyurethane Foam and Solutions for Its Devastating Effects on the Environment."	
Denise Prosser	2018	Essay (MPH): "Clean Oceans, Fresh Drinking Water, Desalination; a Bright or Dismal Future?"	
Erin Caplan	2018	Essay (MPH): "Integrative Review of the Effect of Gluten, if any, on Gastrointestinal Symptoms in Non-celiac Disease Patients."	
T Landis Powell	2018	Essay (MPH): "Spatial Modeling of the Social and Environmental Factors Associated with the Pittsburgh Mosquito Population."	
Robert Agler	2018	Essay (MPH): "The Problematic Matter of Transboundary Aquifer Regulation."	
Zihang Cheng	2018	Essay (MPH): "Late Attention to Children's Health Under Lead Exposure: Legacy of the Flint Water Crisis?"	

Name of Student	Degree Awarded, Year	Type of Document and Title	Notes
Yunjian Guo	2018	Essay (MPH): "Are the Benefits of a Mediterranean Diet Simply Due to Unsaturated Fat Intake?"	
Jiachen (Jason) Zhang	2018	Essay (MPH): "A Comparison of the Damage from UV Emitted from Solaria and Sunlight."	
Denise Prosser	2018	Essay (MPH): "Clean Oceans, Fresh Drinking Water, Desalination: A Bright or Dismal Future?"	
Emilie L Feng	2018	Essay (MPH): "Mercury Exposure through Subsistence Hunted Land and Sea Mammals among Alaskan Natives."	
Varun Patel	2019	Essay (MPH): "Environmental Health Disparities Associated to Stressors in Allegheny County, Pennsylvania."	
Samantha Carpenter Totoni	2020	Essay (MPH): "Under the Radar: Lead Exposure via Hunted Meat."	
Abdulrahman Alobireed	2020	Essay (MPH): In Progress.....	

Service on Masters or Doctoral Committees (Since 2004*)

Dates Served	Name of Student	Degree Awarded	Title of Dissertation/Essay
2004	Anup K Upadhyay	PhD (CMU, 2004)	"Spectroscopic Characterization of Multiheme Proteins from <i>Nitrosomonas europaea</i> ."
2005	Sebastian Stoian	PhD (CMU, 2006)	"Mössbauer and Quantum-chemical Studies of Fe(I) and Fe(II) Diketimate Complexes and of a Short-lived Fe ^{IV} =O Intermediate."
2009	Anya Zatsman	PhD (CMU, 2009)	"Mechanistic Studies of Multiheme Proteins Using EPR Spectroscopy"
2009-2011	Lara Renz	DrPH (2011)	"A Study of Xenoestrogens in the Greater Pittsburgh Area"

Dates Served	Name of Student	Degree Awarded	Title of Dissertation/Essay
2011-2013	Brett J Tunno	DrPH (2013)	“From Home to Community to City: Different Approaches to Environmental Exposure Assessment of Particulate Matter Across the Pittsburgh Region”
2011-2013	Yi Xu	PhD (Engin, 2013)	“Investigation of Environmental Impacts of Beneficial Reuse of Bauxite Residue in Coal-Refuse Area Based on a Hydro-Thermal-Geochemical Model”
2010-2013	Andrew R Michanowicz	DrPH (2014)	“Hybrid Dispaersion/Land Use Regression Modeling for Improving Air Pollutant Concentration Estimates”
2011-2013	Tao Xue	PhD (2015)	“Spatiotemporal Modeling of Air Pollutants and Their Health Effects in the Pittsburgh Region”
2017	Heather D Stout	PhD (CMU, 2017)	“Spectroscopic Studies of Transitional Metal Complexes with Special Electronic Properties”
2017-2020	Antonella Marrocco	PhD	“Alterations of CCSP Expression and Macrophages Metabolism in the Development of Silica-induced Pulmonary Inflammation and Fibrosis.”

*Date of present appointment – dozens prior to this for which I no longer have records.

Supervision of Post-Doctoral Students, Residents, and Fellows

Dates Supervised	Name of Student	Position of Student
2004-2008	Daniel E Winnica	Post-doctoral Associate
2008-2011	Iris Kaminski	Post-doctoral Associate
2009-2011	Quan Yuan	Post-doctoral Associate
2013-2016	Andrea A Cronican	Post-doctoral Associate
2018-	Yookyung Bae	Post-doctoral Associate

Mentoring of Graduate Students in Field Placements

Dates	Name of Student	Degree/Program Description	Field Site
2006	Pornsri (‘Lek’) Khlangwiset	MPH Special Studies (research)	Parran/Crabtree Hall laboratories

2005 – 2011	Elisenda Lopez Manzano	PhD (research)	Parran/Crabtree Hall laboratories
2007 – 2008	Pornsri ('Lek') Khlangwiset	PhD (research)	Parran/Crabtree Hall laboratories
2007 – 2008	Mai Otsuka	CMU (Chemistry) Accelerated MS (research)	Parran/Crabtree Hall laboratories
2008 – 2012	Oscar S Benz	PhD (research)	Parran/Crabtree Hall laboratories
2008	Lara M Huyler	MPH Special Studies (research)	Parran/Crabtree Hall laboratories
2008	Shannon E Raub	MPH Special Studies (research)	Parran/Crabtree Hall laboratories
2009	Patrick P Kerr	MPH Special Studies (research)	Parran/Crabtree Hall laboratories
2009-2011	Leah K Cambal	MPH Special Studies (research)	Parran/Crabtree Hall laboratories
2010 – 2011	Xi Zheng	MPH Special Studies (research)	Parran/Crabtree Hall & Bridgeside Point laboratories
2011-	Kyle J Ferrar	DrPH (research)	FracTracker CA/ Bridgeside Point
2011-	Charles Tomljanovic	DrPH (research)	Current Tech Corp PA/ Bridgeside Point
2012 – 2016	Samantha L Malone	DrPH (research)	FracTracker PA/ Bridgeside Point
2012 – 2013	Kristin Frawley	MPH Special Studies (research)	Bridgeside Point laboratories
2013-16	Shannon Kearney	DrPH (research)	Program Eval Res Unit/ U P S Pharmacy
2013	Andrew Helmy	MPH Special Studies (research)	Bridgeside Point laboratories
2013	Dina G Dunn	MPH Special Studies (research)	Bridgeside Point laboratories
2013	Qiao Lin	MPH Special Studies (research)	Bridgeside Point laboratories
2013	Yi Chen	MPH Special Studies (research)	Bridgeside Point laboratories
2013	Ditian Yang	MPH Special Studies (research)	Bridgeside Point laboratories

2013	Rui Guo	MPH Special Studies (research)	Bridgeside Point laboratories
2014 – 2015	Leah K Cambal	DrPH (research)	Bridgeside Point laboratories
2015 – 19	Kristin Frawley	DrPH (research)	Bridgeside Point & GSPH laboratories
2015 – 16	Hirunwut Praekunatham	MPH Special Studies (research)	Bridgeside Point laboratories
2015	Erin P Straw	MPH Special Studies (research)	Bridgeside Point laboratories
2015 – 17	Kimberly K Garrett	MPH Special Studies (research)	Bridgeside Point & GSPH laboratories
2016 – 18	Hirunwut Praekunatham	DrPH (research)	Bridgeside Point & GSPH laboratories
2018 – 20	Samantha Carpenter Totoni	MPH Special Studies (research)	GSPH laboratories
2018 –	Kimberly K Garrett	PhD (research)	GSPH laboratories
2019	Mikayla Kerr	MPH Special Studies (research)	GSPH laboratories

Other Teaching and Training

Dates	Teaching Activity	Program/Description
2004-2005	Supervising original research	Predoctoral Associate (Elisenda Lopez Manzano)
2005-2007	Supervising original research	CMU (Chemistry) Undergraduate (Mai Otsuka)
2006-2007	Supervising original research	Predoctoral Associate (Sandra Martinez-Bosch)
2006-2008	Supervising original research	CMU (Chemistry) Undergraduate (Elizabeth A Ungerman)
2007-2008	Supervising original research	Pittsburgh (Chemistry) Undergraduate (Patrick P Kerr)
2008-2009	Supervising original research	Pittsburgh (Engineering) Undergraduate (Rachel K Ungerman)
2009-2011	Supervising original research	Research Specialist II (Leah K Cambal)
2009-2010	Supervising original research	Predoctoral Associate (Megan R Swanson)
2009-2010	Supervising original research	Graduate Student (Biostatistics) PhD (Yang Zhang)

2009-2010	Supervising original research	CMU (Chemistry) Undergraduate (Sarah A Marks)
2010-2011	Supervising original research	Research Specialist I (Andrew C Weitz)
2010-2011	Supervising original research	Graduate Student (Biostatistics) PhD (Tianxiu Wang)
2013-2014	Supervising original research	Predoctoral Associate (Kristin L Frawley)
2013-2016	Supervising original research	Pittsburgh (Neuroscience) Undergraduate (Humza Ahmed)
2016-2019	Supervising original research	Pittsburgh (Biology) Undergraduate (Cody J Madison)
2017-2018	Supervising original research	Predoctoral Associate (Kimberly K Garrett)
2019-2020	Qualifying Exam (ORP) Advisor	Graduate Student (Heng Bai, PhD EOH)
2019-	Supervising original research	Pittsburgh (Law School) Graduate (Cody J Madison)
2019-2020	Supervising original research	Pittsburgh (Biology) Undergraduate (Emily E Brown)

Research and Training

Grants and Contracts Received (Since 2000#) [#Prior to 2000, ~8 smaller awards (\$5,000-70,000 each) of 1-year duration from AHA (Alabama Affiliate), NSF (Molecular & Cellular Biophysics), and local sources at The University of Alabama and CMU.]

Principal Investigator/Project Leader*

Years Inclusive	Grant and/or Contract Number and Title	Source	Annual Direct Costs	% Effort
2000-04	R01 HL61411, "Mitochondria and Pulmonary Endothelial Cell Death."	NIH/NHLBI	\$150,000	75%
2004-08	R01 HL61411, "Mitochondria and Pulmonary Endothelial Cell Death."	NIH/NHLBI	\$175,000	50%
2005-10	U19 AI068021, "Center for Molecular Countermeasures Against Radiation: Project 3: Development of New Small Molecule Targets for Radiation Protection Through Elaboration of the Mechanism of Irradiation Damage to the Mitochondrial Electron Transport Chain."	NIH/NIAID	\$191,982	20%

Years Inclusive	Grant and/or Contract Number and Title	Source	Annual Direct Costs	% Effort
2010-15	U19 AI068021, "Center for Molecular Countermeasures Against Radiation: Project 4: Development of New Small Molecule Targets for Radiation Protection Through Elaboration of the Mechanism of Irradiation Damage to the Mitochondrial Electron Transport Chain."	NIH/NIAID	\$56,790	5%
2008-12	U01 NS063732, "Acute Cyanide Toxicity, Complex IV, NO & Nitrite."	NIH/NINDS	\$322,911	30%
2012-13	SwRI Subcontract No. E9910MEC, "Spectroscopic Studies of Candidate Antidotes for Acute Cyanide Intoxication."	BARDA	\$28,739	5%
2013-15	R21 NS084894, "Nitrites as Antidotes for Hydrogen Sulfide Poisoning."	NIH/NINDS	\$250,000	50%
2014-16	R21 NS089893, "Cyanide Decorporation by Schiff-base Macrocycles."	NIH/NINDS	\$250,000	50%

Co-Principal Investigator

Years Inclusive	Grant and/or Contract Number and Title	Source	Annual Direct Costs	% Effort
2016-18	R21 NS089893, "New Chelating (Decorporating) Agents for Azide."	NIH/NINDS	\$137,500	7.5%
2017-19	R21 ES029310, "An Approach Toward Antidotes for Phosphine."	NIH/NINDS	\$150,000	15%
2018-21	U01 NS109793 "Cyanide/Azide Detoxification by New Cobalt Complexes and NO Donors"	NIH/NINDS	\$300,000	20% - 50%

Invited Lectureships and Major Seminars Related to Your Research (Since 2000 – no existing records prior to this)

"Magnetic Linear Dichroism Spectroscopy: A New Tool for the Study of Catalytic Sites in Metalloproteins." Division of Inorganic Chemistry, University of Cambridge, UK, 2000.

“Magnetic Linear Dichroism Spectroscopy: A New Tool for the Study of Catalytic Sites in Metalloproteins.” Division of Inorganic Chemistry, University of Oxford, UK, 2000.

“Magnetic Linear Dichroism Spectroscopy: A New Tool for the Study of Catalytic Sites in Metalloproteins.” Division of Inorganic Chemistry, University of Edinburgh, UK, 2000.

“Magnetic Linear Dichroism Spectroscopy: A New Tool for the Study of Catalytic Sites in Metalloproteins.” Division of Inorganic Chemistry, King’s College London, UK, 2000.

“Mitochondrial Decomposition of Peroxynitrite.” Third International Conference on Peroxynitrite and Reactive Nitrogen Species in Biology and Medicine. Monterrey CA, 2001.

“MCD, MLD, Mitochondria, and the Vasculature: Is There a Connection?” Department of Environmental and Occupational Health, University of Pittsburgh PA, 2002.

“Addressing Physiologically-relevant Issues by Analytical Spectroscopy” Department of Environmental and Occupational Health, University of Pittsburgh PA, 2002.

“Physiologically-relevant Reactions of Mitochondrial Complex IV with the Auxiliary Substrate Nitric Oxide.” Radical-mediated Mechanisms in Biophysics Symposium, Biophysical Society Meeting, San Antonio TX, 2003.

Co-Chair: “The Function and Regulation of Mitochondrially-produced Nitric Oxide in Cardiomyocytes.” Experimental Biology 2003 Symposium, American Physiological Society Meeting, San Diego CA, 2003.

“Mitochondrial Consumption of Nitric Oxide and Peroxynitrite – Relief of Nitrosative Stress?” Department of Biochemical Sciences, University of Rome “*La Sapienza*,” Italy, 2004.

“Mitochondria Suppress Nitrosative Stress by Consumption of Nitric Oxide and Peroxynitrite.” Fourth International Conference on Peroxynitrite and Reactive Nitrogen Species in Biology and Medicine, Konstanz, Germany, 2004.

“Development of New Small Molecule Targets for Radiation Protection Through Elaboration of the Mechanism of Irradiation Damage to the Mitochondrial Electron Transport Chain.” NIAID CMCR Steering Committee Meeting, Arlington VA, 2005.

“Mitochondrial Targets for Radioprotection.” NIAID CMCR Annual Meeting, Gaithersburg MD, 2006.

“Mitochondrial Peroxynitrite – The Uncertain Magnitude of the Problem.” Mid-Atlantic Nitric Oxide Interest Group Meeting, Farmington PA, 2008.

“Acute Cyanide Toxicity, Complex IV, NO and Nitrite.” Third Annual CounterACT Network Research Symposium, Washington DC, 2009.

“Old Myths and New Uncertainties Regarding the Action of Sodium Nitrite in the Amelioration of Cyanide Intoxication.” 17th Biennial Medical Chemical Defense Bioscience Review, Hunt Valley MD, 2009.

“Acute Cyanide Toxicity, Complex IV, NO and Nitrite.” Fourth Annual CounterACT Network Research Symposium, San Francisco CA, 2010.

“Acute Cyanide Toxicity, Complex IV, NO and Nitrite.” Fifth Annual CounterACT Network Research Symposium, Washington DC, 2011.

Moderator: “Full Metal Jacket – The Roles of Metal Ions in Proteins.” Science2011 – Next Gen, University of Pittsburgh, Pittsburgh PA, 2011.

“Acute Cyanide Toxicity and Sodium Nitrite: An Example of Medicine Disguised as Quackery.” Center for Drug Design, University of Minnesota, Minneapolis MN, 2011.

“Acute Cyanide Toxicity and Sodium Nitrite: Modern Cyanide Exposures and Medical Good Fortune.” Institute of Mineral Resources, Chinese Academy of Geological Sciences, Beijing, China, 2012.

“Acute Cyanide Toxicity and Sodium Nitrite: Counterterrorism and a Remedy Disguised as Quackery.” School of Public Health, University of Indiana Bloomington, IN, 2013.

“Nitrites as Antidotes for Hydrogen Sulfide Poisoning.” Eighth Annual CounterACT Network Research Symposium, Denver CO, 2014.

“Cyanide Decorporation by Co(III) Schiff-base Macrocycles.” Ninth Annual CounterACT Meeting, New York NY, 2015.

“Nitrites as Antidotes for Hydrogen Sulfide Poisoning.” Eighth Annual CounterACT Network Research Symposium, New York NY, 2015.

“New Chelating (Decorporating) Agents for Azide.” Tenth Annual CounterACT Meeting, Davis CA, 2016.

“New Chelating (Decorporating) Agents for Azide.” Tenth Annual CounterACT Meeting, Boston MA, 2017.

“Murder, Suicide, Warfare, Old Myths and New Uncertainties in the Search for Improved Antidotes to Cyanide Poisoning.” Departmental Seminar, Environmental & Occupational Health, Pittsburgh PA, 2019.

“Cyanide/Azide Detoxification by New Cobalt Complexes and NO Donors.” Thirteenth Annual CounterACT Meeting, New York NY, 2019.

“New Cobalt Complexes and NO Donors.” Society of Toxicology 59th Annual Meeting, Anaheim CA, 2020. Cancelled due to Covid-19 pandemic emergency.

“Cyanide/Azide Detoxification by New Cobalt Complexes and NO Donors.” Fourteenth Annual CounterACT Meeting, Riverside CA, 2020. Cancelled due to Covid-19 pandemic emergency.

Other Research and Training Activities

Date	Position	Description of Activity
June 2006	Invited participant	NIAID/CMCR Workshop on the FDA Pre-market Regulatory Process.
March 2007	Invited participant	DAIT/NIAID/NIH Medical Countermeasures Against Radiation Combined Injury Meeting.

Date	Position	Description of Activity
June 2007	Invited participant	NIAID Centers for Medical Countermeasures against Radiation Annual Meeting.
November 2008	Invited participant	NIAID Centers for Medical Countermeasures against Radiation Annual Meeting.
April 2009	Invited participant	NINDS 3 rd Annual CounterACT Meeting.
May 2010	Invited participant	USAMRMC 17 th Biennial Bioscience Review.
June 2010	Invited participant	NINDS 4 th Annual CounterACT Meeting.
June 2011	Invited participant	NINDS 5 th Annual CounterACT Meeting.
April 2012	Invited consultant	Institute of Mineral Resources, Chinese Academy of Geological Sciences, Colloquium on Heavy Metals, Mining & Public Health.
March 2013	Invited consultant	School of Public Health, University of Indiana Bloomington, Colloquium on Environmental Health in Public Health.
May 2015	Host/organizer	Applied Photophysics SX User Group Meeting (stopped-flow applications).
April 2017	Invited participant	University of Pittsburgh, NIOSH Education and Research Center
February 2018	Invited subject material expert (SME)/consultant	(ERC) Symposium. Dimethyl Trisulfide Symposium at USAMRICD.

PUBLICATIONS

Refereed Articles

As Student/Postdoctoral Investigator:

1. J. **Peterson**, J. Silver, M. T. Wilson and I. E. G. Morrison: "The Purification and Mössbauer Parameters of the Haem Undecapeptide of Cytochrome *c*"; *J. Inorg. Biochem.*, **13**, 75-82 (1980).

2. G. M. Clore, M. R. Hollaway, C. Orengo, J. **Peterson** and M. T. Wilson: "The Kinetics of the Reactions of Low Spin Ferric Haem Undecapeptide with Hydrogen Peroxide"; *Inorg. Chim. Acta*, **56**, 143-148. (1981).
3. K. Kimura, J. **Peterson**, M. Wilson, D. J. Cookson and R. J. P. Williams: "A Study of the Electron Transfer Properties of the Haem Undecapeptide from Cytochrome *c* by ¹H NMR Spectroscopy"; *J. Inorg. Biochem.*, **15**, 11-25 (1981).
4. M. T. Wilson, J. **Peterson**, E. Antonini, M. Brunori, A. Colosimo and J. Wyman: "A Plausible Two-state Model for Cytochrome *c* Oxidase"; *Proc. Natl. Acad. Sci. USA*, **78**, 7115-7118 (1981).
5. G. Sievers, P. M. A. Gadsby, J. **Peterson** and A. J. Thomson: "Magnetic Circular Dichroism Spectra of Soybean Leghaemoglobin *a* at Room Temperature and 4.2 K"; *Biochim. Biophys. Acta*, **742**, 637-647 (1983).
6. D. G. Eglinton, P. M. A. Gadsby, G. Sievers, J. **Peterson** and A. J. Thomson: "A Comparative Study of the Low-temperature Magnetic Circular Dichroism Spectra of Horse Heart Metmyoglobin and Bovine Liver Catalase Derivatives"; *Biochem. Biophys. Acta*, **742**, 648-658 (1983).
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96. Kristin L. Frawley, Andrea A. Cronican, Linda L. Pearce*, Jim **Peterson***: “Sulfide Toxicity and Its Modulation in Bovine Pulmonary Artery Endothelial Cells”; *Chem. Res. Toxicol.* **30**, 2100-2109 (2017).
97. Quan Yuan, Linda L. Pearce,* and Jim **Peterson*** “Relative Propensities of Cytochrome c Oxidase and Cobalt Corrins for Reaction with Cyanide and Oxygen: Implications for Amelioration of Cyanide Toxicity”; *Chem. Res. Toxicol.* **30**, 2197-2308 (2017).
98. Andrea A. Cronican, Kristin L. Frawley, Erin P. Straw, Elisenda Lopez-Manzano, Hirunwut Praekunatham, Jim **Peterson**,* and Linda L. Pearce* “A Comparison of the Cyanide-Scavenging Capabilities of Some Cobalt-Containing Complexes in Mice”; *Chem. Res. Toxicol.* **31**, 259-268 (2018).
99. Kristin L. Frawley, Hirunwut Praekunatham, , Jim **Peterson** and Linda L. Pearce*: “Assessing Modulators of Cytochrome c Oxidase Activity in *Galleria mellonella* Larvae”; *Comp. Biochem. Physiol., Part C* **219**, 77-86 (2019).
100. Kimberly K. Garrett, Kristin L. Frawley, Samantha Carpenter Totoni, Yookyung Bae, Jim **Peterson*** and Linda L. Pearce*: “Antidotal Action of some Gold(I) Complexes Toward Phosphine Toxicity”; *Chem. Res. Toxicol.* **32**, 1310-1316 (2019).
101. Hirunwut Praekunatham, Linda L. Pearce* and Jim **Peterson***: “Reaction Kinetics of Cyanide Binding to a Cobalt Schiff-base Macrocyclic Relevant to its Mechanism of Antidotal Action”; *Chem. Res. Toxicol.* **32**, 1630-1637 (2019).
102. Hirunwut Praekunatham, Kimberly K. Garrett, Andrea A. Cronican, Kristin L. Frawley, Linda L. Pearce* and Jim **Peterson***: “A Cobalt Schiff-base Complex as a Putative Therapeutic for Azide Poisoning”; *Chem. Res. Toxicol.* **33**, 333-342 (2020).
103. Kristin L. Frawley, Samantha Carpenter Totoni, Yookyung Bae, Linda L. Pearce* and Jim **Peterson***: “A Comparison of Potential Azide Antidotes in a Mouse Model”; *Chem. Res. Toxicol.* **33**, 594-603 (2020).
104. Anna C Zemke,* Cody J Madison, Naomi Kasturiarchi, Linda L Pearce and Jim **Peterson**: “Antimicrobial Synergism Toward *Pseudomonas aeruginosa* by Gallium(III) and Inorganic Nitrite”; *Front. Microbiol.* (2020) in revision.
105. L.L. Pearce*, X. Zheng, D.S. Wilen, D.G. Dunn, A.A. Cronican, K.L. Frawley, L.K. Cambal, M.R. Swanson, Y.-H Huang, J. **Peterson**: “Oxidant-dependent Sensitizing, Protective and Mitigative Effects in X-ray Irradiated Pulmonary Endothelial Cells”; *Rad. Res.* (2019) in revision.
106. Jim **Peterson**,* Andrea A. Cronican, Andrew C. Weitz, Cody J. Madison, Anna C. Zemke, Kristin L. Frawley and Linda L. Pearce*: “The bactericidal activity of a

gallium(III)/nitrite combination toward *Escherichia coli*: A promising strategy for combating drug-resistant bacteria?"; *Biochem. Pharm.* (2020) in submission.

Book Chapters

1. Joel S. Greenberger*, Valerian E. Cagan, James **Peterson**, Michael W. Epperly. *Radiation Protection by MnSOD-Plasmid Liposome Gene Therapy in Oxidative Stress in Applied Research and Clinical Practice*. Humana Press (Springer), New York USA (2012).
2. Samantha L. Malone, Linda L. Pearce, Jim **Peterson***. *Environmental Toxicology of Cyanide in Clinical and Experimental Toxicology of Cyanide*. John Wiley & Sons, Chichester UK (2015).

Review Articles (peer-reviewed)

1. Samantha L. Rubright, Linda L. Pearce, Jim **Peterson***. Environmental Toxicology of Sulfide. *Nitric Oxide: Chemistry and Biology* 71, 1-13 (2017).

Published Abstracts (since 2006)

OXIDANT-LINKED MITOCHONDRIAL MECHANISMS OF CELL DEATH IN IRRADIATED TISSUE. J. Peterson, S. Martinez-Bosch, D.E. Winnica, L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Radiation Research Society, 53rd Annual Meeting, Philadelphia, 2006*.

EFFECTS OF L-ARGININE ON MITOCHONDRIAL RESPIRATORY FUNCTION IN IRRADIATED HEMATOPOIETIC PROGENITOR CELLS. S. Martinez-Bosch, M.W. Epperly, P. Khlangwiset, J. Peterson, L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Society for Free Radicals in Biology and Medicine, 13th Annual Meeting, Denver, 2006*.

NITRIC OXIDE AND THE STANDARD THERAPY FOR ACUTE CYANIDE POISONING. J. Peterson, E. Lopez Manzano, S. Martinez-Bosch, L. L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Second International Meeting on the Role of Nitrite in Physiology, Pathophysiology, and Therapeutics, Bethesda MD, 2007*.

OXIDATION OF HYDROETHIDINE FLUORESCENT PROBES BY COMPONENTS OF THE MITOCHONDRIAL ELECTRON TRANSPORT CHAIN. E.A. Ungerman, O. Benz, P.P. Kerr, S. Martinez-Bosch, J. Peterson, L. L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Society for Free Radicals in Biology and Medicine, 14th Annual Meeting, Washington DC, 2007*.

RESISTANCE OF ELECTRON TRANSPORT CHAIN IRON-SULFUR CENTERS TO OXIDATIVE DEGRADATION BY PEROXYNITRITE. J. Peterson, S. Martinez-Bosch, D.E. Winnica, M.W. Epperly, L. L. Pearce; Department of Environmental and Occupational Health,

University of Pittsburgh School of Public Health. *Society for Free Radicals in Biology and Medicine, 14th Annual Meeting, Washington DC, 2007.*

DIRECT IRRADIATION AND RADIATION-INDUCED BYSTANDER RESPONSES BOTH RESULT IN MITOCHONDRIAL DYSFUNCTION IN HEMATOPOIETIC PROGENITOR CELLS. P. Khlangwiset, S. Martinez-Bosch, M.W. Epperly, J. Peterson, L. L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Society for Free Radicals in Biology and Medicine, 14th Annual Meeting, Washington DC, 2007.*

FUNCTIONAL STUDIES OF NITRIHEMOGLOBIN. M. Otsuka, D.E. Winnica, L. L. Pearce, J. Peterson; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Society for Free Radicals in Biology and Medicine, 14th Annual Meeting, Washington DC, 2007.*

NITRIC OXIDE, NITRITE AND THE STANDARD THERAPY FOR ACUTE CYANIDE INTOXICATION. J. Peterson, L.K. Cambal, M.R. Swanson, E. Lopez Manzano, L.L. Pearce & B.R. Pitt; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Third Annual CounterACT Meeting, Washington DC, 2009.*

NITRIC OXIDE, NITRITE AND THE STANDARD THERAPY FOR ACUTE CYANIDE INTOXICATION. J. Peterson, L.K. Cambal, M.R. Swanson, E. Lopez Manzano, B.R. Pitt & L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Third International Meeting on the Physiology, Pathophysiology and Therapeutics of Nitrite, Stockholm, Sweden, 2009.*

MANGANESE SUPEROXIDE DISMUTASE IS NOT RADIOPROTECTIVE IN BOVINE PULMONARY ARTERY ENDOTHELIAL CELLS AT SYSTEMIC OXYGEN. M.S. Stitt-Fischer, R.K. Ungerman, D.S. Wilen, L.M. Huyler, S.E. Raub, J. Peterson and L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Society for Free Radicals in Biology and Medicine, 16th Annual Meeting, San Francisco, 2009.*

THE PUZZLING OXYGEN DEPENDENCE OF THE OXIDATION OF CYTOCHROME *c* BY PEROXYNITRITE. E. Lopez Manzano, J. Peterson and L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Society for Free Radicals in Biology and Medicine, 16th Annual Meeting, San Francisco, 2009.*

OLD MYTHS AND NEW UNCERTAINTIES REGARDING THE ACTION OF SODIUM NITRITE IN THE AMELIORATION OF CYANIDE INTOXICATION. J. Peterson; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *17th Biennial, Hunt Valley MD, 2010.*

ACUTE CYANIDE TOXICITY, COMPLEX IV, NO AND NITRITE. J. Peterson, L.L. Pearce & B.R. Pitt; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Fourth Annual CounterACT Meeting, San Francisco CA, 2010.*

MANGANESE SUPEROXIDE DISMUTASE IS NOT RADIOPROTECTIVE IN BOVINE PULMONARY ARTERY ENDOTHELIAL CELLS AT SYSTEMIC OXYGEN LEVELS. L.L. Pearce and J. Peterson; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Radiation Research Society 56th Annual Meeting, Maui HI 2010.*

ACUTE CYANIDE TOXICITY, METHEMOGLOBIN, NITRITE AND THIOSULFATE. J. Peterson, L.K. Cambal, Q. Yuan, A.C. Weitz, Xi Zheng, H.-H. Li, Bruce R. Pitt & L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Fifth Annual CounterACT Meeting, Washington DC, 2011.*

NITRITES AS ANTIDOTES FOR HYDROGEN SULFIDE POISONING. K.L. Frawley, A.A. Cronican, H. Ahmed, L.L. Pearce & J. Peterson; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Eighth Annual CounterACT Meeting, Denver CO, 2014.*

COBALT SCHIFF-BASE MACROCYCLES AS ANTIDOTES TO ACUTE CYANIDE POISONING. A.A. Cronican, E. Lopez Manzano, K.L. Frawley, J. Peterson & L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Ninth Annual CounterACT Meeting, New York NY, 2015.*

ANTAGONISM OF ACUTE SULFIDE POISONING BY NITRITE ANION. K.L. Frawley, A.A. Cronican, H. Ahmed, L.L. Pearce & J. Peterson; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Ninth Annual CounterACT Meeting, New York NY, 2015.*

BATTLE COBALT: THREE-ROUND KNOCKDOWN FIGHT COMPARING COBALT-CONTAINING COMPOUNDS AS ANTIDOTES TO ACUTE CYANIDE POISONING. A.A. Cronican, K.L. Frawley, E.P. Straw, J. Peterson & L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Tenth Annual CounterACT Meeting, Davis CA, 2016.*

NEW CHELATING (DECORPORATING) AGENTS FOR AZIDE. H. Praekunatham, K.L. Garrett, J. Peterson & L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Eleventh Annual CounterACT Meeting, Boston MA, 2017.*

NEW DECORPORATING AGENTS FOR AZIDE. K. Frawley, A.A. Cronican, S. Carpenter, H. Praekunatham, J. Peterson & L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Twelfth Annual CounterACT Meeting, Denver CO, 2018.*

AN APPROACH TOWARD ANTIDOTES FOR PHOSPHINE. K. Garrett, K. Frawley, A. Cronican, L. Pearce & J. Peterson; Department of Environmental and Occupational Health,

University of Pittsburgh School of Public Health. *Twelfth Annual CounterACT Meeting, Denver CO, 2018.*

THE ANTIDOTAL ACTION OF SOME GOLD(I) COMPLEXES TOWARD PHOSPHINE TOXICITY. K.K. Garrett, K.L. Frawley, S. Carpenter Totoni, Y. Bae, J. Peterson & L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Thirteenth Annual CounterACT Meeting, New York NY, 2019.*

TOWARD THE AMELIORATION OF AZIDE TOXICITY. K. Frawley, S. Carpenter Totoni, Y. Bae, L.L. Pearce & J. Peterson; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *Thirteenth Annual CounterACT Meeting, New York NY, 2019.*

Presentations (since 2009)

J. Peterson, L.K. Cambal, M.R. Swanson, E. Lopez Manzano, L.L. Pearce & B.R. Pitt; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. NITRIC OXIDE, NITRITE AND THE STANDARD THERAPY FOR ACUTE CYANIDE INTOXICATION. *Third Annual CounterACT Meeting, Washington DC, 2009.*

J. Peterson; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. OLD MYTHS AND NEW UNCERTAINTIES REGARDING THE ACTION OF SODIUM NITRITE IN THE AMELIORATION OF CYANIDE INTOXICATION. *17th Biennial Bioscience Review, Hunt Valley MD, 2010.*

J. Peterson, L.L. Pearce & B.R. Pitt; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. ACUTE CYANIDE TOXICITY, COMPLEX IV, NO AND NITRITE. *Fourth Annual CounterACT Meeting, San Francisco CA, 2010.*

J. Peterson, L.L. Pearce & B.R. Pitt; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. ACUTE CYANIDE TOXICITY, COMPLEX IV, NO AND NITRITE. *Fifth Annual CounterACT Meeting, Washington DC, 2011.*

J. Peterson & L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. ACUTE CYANIDE TOXICITY AND SODIUM NITRITE: MODERN CYANIDE EXPOSURES AND MEDICAL GOOD FORTUNE. *Institutional Symposium, Chinese Academy of Geological Sciences, Beijing PRC, 2012.*

J. Peterson; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. ACUTE CYANIDE TOXICITY AND SODIUM NITRITE: COUNTERTERRORISM AND A REMEDY DISGUISED AS QUACKERY. *Institutional Symposium, University of Indiana School of Public Health, Bloomington IN, 2013.*

J. Peterson & L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. NITRITES AS ANTIDOTES FOR HYDROGEN SULFIDE POISONING. *Eighth Annual CounterACT Meeting, Denver CO, 2014.*

L.L. Pearce & J. Peterson; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. CYANIDE DECORPORATION BY Co(III) SCHIFF-BASE MACROCYCLES. *Ninth Annual CounterACT Meeting, New York NY, 2015.*

J. Peterson & L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. NITRITES AS ANTIDOTES FOR HYDROGEN SULFIDE POISONING. *Ninth Annual CounterACT Meeting, New York NY, 2015.*

L.L. Pearce & J. Peterson; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. NEW CHELATING (DECORPORATING) AGENTS FOR AZIDE. *Tenth Annual CounterACT Meeting, Davis CA, 2016.*

ENVIRONMENTAL HEALTH OPPORTUNITIES: IMPLEMENTATION OF A STRATEGIC PLAN. J. Peterson; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. *NIOSH Education and Research Center Symposium, Pittsburgh PA, 2017.*

L.L. Pearce & J. Peterson; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. NEW CHELATING (DECORPORATING) AGENTS FOR AZIDE. *Eleventh Annual CounterACT Meeting, Boston MA, 2017.*

L.L. Pearce & J. Peterson; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. NEW CHELATING (DECORPORATING) AGENTS FOR AZIDE. *Twelfth Annual CounterACT Meeting, Denver CO, 2018.*

L.L. Pearce & J. Peterson; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. AN APPROACH TOWARD ANTIDOTES FOR PHOSPHINE. *Twelfth Annual CounterACT Meeting, Denver CO, 2018.*

J. Peterson & L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. MURDER, SUICIDE, WARFARE, OLD MYTHS AND NEW UNCERTAINTIES IN THE SEARCH FOR IMPROVED ANTIDOTES TO CYANIDE POISONING. *Pennsylvania Public Health Association Student Chapter Seminar, Slippery Rock University, Slippery Rock PA, 2019.*

J. Peterson & L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. MURDER, SUICIDE, WARFARE, OLD MYTHS AND NEW UNCERTAINTIES IN THE SEARCH FOR IMPROVED ANTIDOTES TO CYANIDE POISONING. *Departmental Seminar, Environmental & Occupational Health, Pittsburgh PA, 2019.*

L.L. Pearce & J. Peterson; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. AN APPROACH TOWARD ANTIDOTES FOR PHOSPHINE. *Thirteenth Annual CounterACT Meeting, New York NY, 2019.*

J. Peterson & L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. CYANIDE/AZIDE DETOXIFICATION BY NEW COBALT COMPLEXES AND NO DONORS. *Thirteenth Annual CounterACT Meeting, New York NY, 2019.*

J. Peterson & L.L. Pearce; Department of Environmental and Occupational Health, University of Pittsburgh School of Public Health. ACCIDENT, MURDER, SUICIDE, WARFARE, OLD MYTHS AND NEW UNCERTAINTIES IN THE SEARCH FOR IMPROVED ANTIDOTES TO CYANIDE POISONING. *Biology, Chemistry & Physics Seminar, Allegheny College, Meadville PA, 2020.* Cancelled due to Covid-19 pandemic emergency.

Service (Professionally Related)

University/Institute of Higher Learning

Years	Committee	Position
2004-	Departmental (EOH) Promotion Advisory Committee	Appointed Member
2007-2010	School (GSPH) Faculty Appointment, Promotion and Tenure Committee	Elected Member
2007-	Departmental (EOH) MPH Program	Director
2008-	Departmental (EOH) DrPH Program	Director
2015-	GSPH MPH Directors Committee (ongoing re-certification planning)	Appointed Member
2020-	GSPH Program Directors Committee (teaching management/response to Covid-19)	Appointed Member

Manuscript and Other Document/Publication Review (Since 2000)

Dates	Journal Title
February 2000	Journal of Biological Inorganic Chemistry (Robert A. Scott, Ed.)
May 2000	Journal of Biological Inorganic Chemistry (Robert A. Scott, Ed.)
October 2000	Biochimica et Biophysica Acta (Laura Wallins, Ed.)
January 2001	Antioxidants & Redox Signaling (Valerian Kagan, Ed.)
February 2001	Journal of the American Chemical Society (F. Ann Walker, Ed.)
August 2001	Journal of the American Chemical Society (F. Ann Walker, Ed.)
October 2001	Journal of the American Chemical Society (F. Ann Walker, Ed.)
April 2002	Mechanisms of Ageing & Development (Jan Vijg, Ed.)
June 2002	Free Radical Biology & Medicine (William A. Pryor, Ed.)
September 2002	Mechanisms of Ageing & Development (Jan Vijg, Ed.)
February 2003	Antioxidants & Redox Signaling (Valerian Kagan, Ed.)
February 2003	Nitric Oxide: Biology & Chemistry (David Vargas, Ed.)
March 2003	Mechanisms of Ageing & Development (Jan Vijg, Ed.)
April 2003	Journal of Biological Chemistry (John H. Dawson, Ed.)
May 2003	Journal of Biological Chemistry (John H. Dawson, Ed.)

November 2003 Proceedings of the National Academy of Sciences USA (Louis J. Ignarro, Ed.)

January 2004 Journal of Porphyrins & Phthalocyanines (Kevin M. Smith, Ed.)

April 2004 Journal of Biological Chemistry (Toru Shimizu, Ed.)

April 2004 Federation of European Biochemical Societies Letters (Hans Eklund, Ed.)

May 2004 Journal of Biological Inorganic Chemistry (Claudio Luchinat, Ed.)

September 2004 Antioxidants & Redox Signaling (Valerian Kagan, Exec. Ed.)

September 2004 Trends in Pharmacological Sciences (Tricia Ward, Ed.)

October 2005 Journal of the American Chemical Society (F. Ann Walker, Ed.)

December 2005 Journal of Chemical Education (John W. Moore, Ed.)

February 2007 Nitric Oxide: Biology & Chemistry (Jack Lancaster, Ed.)

April 2007 Antioxidants & Redox Signaling (Chandan Sen, Ed.)

May 2007 Biochimica et Biophysica Acta (Denise M. Wells, Ed.)

July 2007 Toxicological Sciences (Aaron Barchowsky, Assoc. Ed.)

July 2007 Biophysical Journal (Eduardo Perozo, Ed.)

August 2009 Chemical Research in Toxicology (Judy Bolton, Assoc. Ed.)

September 2009 Antioxidants & Redox Signaling (Valerian Kagan, Exec. Ed.)

November 2009 Journal of the American Chemical Society (F. Ann Walker, Ed.)

January 2010 Journal of Chemical Education (Alice Teeter, Assist. Ed.)

July 2010 Toxicological Sciences (Aaron Barchowsky, Assoc. Ed.)

June 2011 Biochemistry (Gary Brudvig, Assoc. Ed.)

September 2011 PLoS ONE (Marianne Koritzinsky, Acad. Ed.)

October 2011 PLoS ONE (Marianne Koritzinsky, Acad. Ed.)

August 2012 Neuroscience Letters (Joel Black, Deputy Editor)

November 2012 Journal of Medicinal Chemistry (Hualiang Jiang, Assoc. Ed.)

July 2013 Neurotoxicology (Marion Ehrich, Assoc. Ed.)

May 2014 Toxicological Sciences (Aaron Barchowsky, Assoc. Ed.)

August 2014 Biomaterials (Peggy O'Donnell, Managing Editor)

November 2014 Journal of Medicinal Chemistry (Carrie Haskell-Luevano, Assoc. Ed.)

January 2015 Journal of Medicinal Chemistry (Carrie Haskell-Luevano, Assoc. Ed.)

December 2015 Annals of the New York Academy of Sciences (David Alvaro, Assoc. Editor; Douglas Braaten, Ed.-in-Chief)

April 2016 Annals of the New York Academy of Sciences (David Alvaro, Assoc. Editor; Douglas Braaten, Ed.-in-Chief)

October 2016 International Journal of Pharmacokinetics (Brit Stamey, Editorial Assist.)

March 2017 Journal of Applied Biomedicine (Zdenek Chval, Editor-in-Chief)

June 2017 Annals of the New York Academy of Sciences (Douglas Braaten, Ed.-in-Chief)

July 2017 PLoS ONE (Bing Xu, Academic Editor)

July 2017 PLoS ONE (Nades Palaniyar, Academic Editor)

July 2017 Letters in Drug Design & Discovery (Sumayya Azhar, Editorial Manager; Hira Saqlain, Assistant Manager)

August 2017	PLoS ONE (Aamir Ahmad, Section Editor)
August 2017	PLoS ONE (Bing Xu, Academic Editor)
October 2017	Letters in Drug Design & Discovery (Tabinda Rao, Editorial Manager; Hira Saqlain, Assistant Manager)
October 2017	PLoS ONE (Aamir Ahmad, Section Editor)
November 2017	PLoS ONE (Maria Cristina Vinci, Academic Editor)
January 2018	Journal of Occupational Medicine & Toxicology (Doris Klingelhofer, Editor-in-Chief)
January 2018	Letters in Drug Design & Discovery (Editorial Office)
February 2018	Journal of Occupational Medicine & Toxicology (Doris Klingelhofer, Editor-in-Chief)
July 2018	PLoS ONE (Maria Cristina Vinci, Academic Editor)
February 2020	Toxicology Reports (Christy Bridges, Associate Editor)
April 2020	Toxicology Reports (Aristidis Tsatsakis, Editor-in-Chief)
June 2020	Toxicology Reports (Aristidis Tsatsakis, Editor-in-Chief)

Study Sections, Review Panels, and Related Advisory Boards (Since 1996)

Date	Position	Organization and Nature of Activity
March 1998	<i>Ad hoc</i> reviewer	NSF/CI, Joseph Reed (Program Director)
April 1998	<i>Ad hoc</i> reviewer	NIH/GM, Donald Schneider (CSR)
June 2003	<i>Ad hoc</i> reviewer	NSF/MCB, Jermelina L Tupas (Program Director)
May 2006	<i>Ad hoc</i> reviewer	MRC/CDA, Vanessa Woo-Kai-Fong (Fellowships Team Administrator)
April 2007	<i>Ad hoc</i> reviewer	NIH/EBT (Enabling Bioanalytical and Biophysical Technologies Study Section, BCMB IRG) Vonda Smith (SRA)
July 2008	Temporary member	NIH/EBT (Enabling Bioanalytical and Biophysical Technologies) Challenge Grant volunteer reviewer, Vonda Smith (SRA)
June 2009	Temporary member	NSF (Physical Inorganic) Arden Bement (Program Director) Cora Marrett (Acting Deputy Director)
October 2009	<i>Ad hoc</i> reviewer	NSF (Chemistry of Life Processes: RUI) Catalina Achim (Program Director)
March 2013	<i>Ad hoc</i> reviewer	NSF (Chemistry of Life Processes: RUI) Catalina Achim (Program Director)

Date	Position	Organization and Nature of Activity
September 2014	<i>Ad hoc</i> reviewer	NSF (Chemistry of Life Processes: Metalloproteins) David Rockcliffe (Program Director)
March 2015	Panel member	NIH CounterACT (ZRG1 MDCN-B 55 R Special Emphasis Panel) Geoffrey Schofield (SRO)
July 2015	Panel member	Czech Science Foundation (Dept Medical & Biol Sciences) Ivan Netuka (President) & Ruzena Holadova (Dept Head)
August 2016	<i>Ad hoc</i> reviewer	NIH/SEP (Bioengineering Research Partnerships, U01) Shing Chun (“Benny”) Lam (SRO)
March 2019	Panel member	US Army Medical Research & Material Command (MRMC) Combat Casualty Care (CCC) Trang Huynh-Watts (SRO)
February 2020	Scientist Reviewer	US Army Medical Research & Material Command (MRMC) Military Operational Medicine (MOM) Beth Drees (SRO)
May 2020	Scientist Reviewer	US Army Medical Research & Material Command (MRMC) Military Operational Medicine (MOM) Beth Drees (SRO)

Service to Governmental and Other Public Organizations

Date	Position	Type of Service and/or Agency
January 2005	Panel Member	NIAID Blue Ribbon Expert Panel Workshop on Cyanide Research
June 2010	Panel Member	NIAID Blue Ribbon Expert Panel Workshop on Cyanide Research
June 2017	Invited Participant	NIAID Blue Ribbon Expert Panel Workshop on Cyanide Research
March – July 2017	Reviewer	Proposed DrPH at East Carolina State University
February – May 2018	Subject Material Expert	Status Consultant for USAMRICD research program: Advanced Preclinical Development of Novel Cyanide Countermeasures

Service (Community Related)

Other Related Service and Volunteer Activities

Year(s)	Position and Organization	Type of Service
2006-2011	Scitech Spectacular, Pittsburgh Regional Science & Engineering Fair	Category Judge
November 2014	Clinical & Translational Science Institute PITT Program	Pilot Reviewer