

Prudent Practices in the Laboratory: An Update

Committee

William F. Carroll, Jr.

Co-Chair

Dr. William F. Carroll is Vice President of Occidental Chemical Corporation in Dallas, Texas and an adjunct industrial professor of chemistry at Indiana University. He served as ACS president in 2005 and as a member of the ACS Board of Directors from 2004 to 2006. He is the former chair of International Activities Committee at ACS. He earned a B.A. from DePauw, an M.S. from Tulane University (1975), and a Ph.D. from Indiana University (1978). Carroll has been an ACS member since 1974 and has served on a number of committees. He holds memberships in the Society of Plastics Engineers; American Association for the Advancement of Science; National Organization for the Professional Advancement of Black Chemists and Chemical Engineers; and National Fire Protection Association; and was the recipient of the Vinyl Institute Roy T. Gottesman Leadership Award in 2000.

Barbara L. Foster

Co-Chair

Ms. Foster is the Safety Director for the C. Eugene Bennett Department of Chemistry at West Virginia University (WVU). She is also the Safety Program Coordinator for the Eberly College of Arts and Sciences at WVU. In these capacities, Ms. Foster supervises all aspects of student laboratories in the department, including safety training, laboratory operation, ensuring adherence to safety regulations and building code, and conducting inspections. Ms. Foster has written over 20 chapters and papers and presented over 40 invited talks on chemical safety. In 2007, Ms. Foster served as the chair of the American Chemical Society Division of Chemical Health and Safety. She holds a B.A. in Biology from West Virginia University.

W. E. Barkley

Member

Dr. Barkley is the former Director of Laboratory Safety at the Howard Hughes Medical Institute, and was a member of the last Prudent Practices committee. Dr. Barkley is the President of Proven Practices, LLC where he supports Environmental Health and Safety programs at major academic research universities and government agencies. His prior experience includes 24 years at the National Institutes of Health (NIH) where he served as the founding Director of the NIH Division of Safety. Dr. Barkley was a principal contributor to several authoritative guidelines in the fields of biological and chemical safety including the NIH Guidelines for the Laboratory Use of Chemical Carcinogens, the NIH Recombinant DNA Guidelines, and the CDC/NIH publication Biosafety in Microbiological and Biomedical Laboratories. He received a bachelor of civil engineering degree from the University of Virginia and the master of science and doctorate degrees in environmental health from the University of Minnesota.

Susan H. Cook

Member

Dr. Cook is the Biological Safety Officer for Washington University. She received her PhD from the Johns Hopkins Bloomberg School of Public Health in the laboratory of Dr. Diane Griffin, where she studied viral pathogenesis. She then spent a year in the laboratory of Dr. Roy Curtiss, III at Washington University in St. Louis studying vaccine design before accepting a biosafety fellowship at the Midwest Regional Center of Excellence, also located at Washington University. In October of 2005, she earned the Certified Biological Safety Professional (CBSP) and Specialist Microbiologist in Biological Safety Microbiology [SM(AAM)] certifications. In January, 2006, following completion of the Fellowship program, she was hired as the Associate Biological Safety Officer for Washington University in St. Louis. She became Biological Safety Officer for Washington University on July 1, 2007.

Kenneth P. Fivizzani

Member

Dr. Fivizzani is a Research Scientist at Nalco Company. He is the Chemical Hygiene Officer for Nalco's Naperville (IL) and Sugar Land (TX) Research Laboratories. He received both B.S. and M.S. degrees in chemistry from Loyola University of Chicago and a Ph.D. in inorganic chemistry from the University of Wisconsin-Madison. He is a member of the American Chemical Society (ACS), the American Industrial Hygiene Association (AIHA), the Industrial Research Institute's (IRI) Environmental Health and Safety Directors' Network, and Sigma Xi. He was the 2007 Chair of the ACS Chicago Section. He was the 2000 Chair for the ACS Division of Chemical Health and Safety. He is a past Chair (2002-2004) and a current member of the ACS Committee on Chemical Safety (CCS). For 1999-2001, he served as Chair of the IRI Environmental Health and Safety Directors' Network. In 1988-89, he served as president of the Nalco Chapter of Sigma Xi, the Scientific Research Society. Dr. Fivizzani is certified as a Chemical Hygiene Officer by the National Registry of Certified Chemists. He serves on the Board of Editors of The Journal of Chemical Health & Safety and writes columns for The Last Word in that journal. He has presented thirty papers at national ACS meetings to the Chemical Health and Safety, the Industrial and Engineering Chemistry, and the Chemical Education divisions. He has co-authored conference papers for the National Association of Corrosion Engineers, the Cooling Tower Institute (CTI), and the American Industrial Hygiene Conference & Exposition. He is an inventor or co-inventor on five U.S. patents. He has investigated corrosion inhibition and dispersion in boiler and cooling water systems. His current activity involves laboratory safety and recruiting of technical staff.

Robin Izzo

Member

Ms. Izzo is the Associate Director for Laboratory Safety in the Office of Environmental Health and Safety at Princeton University. She has more than 20 years experience in the laboratory safety field, having held positions at the University of Vermont and Harvard University before her 16 year tenure at Princeton. Ms. Izzo is involved in a number of national and international organizations dedicated to health, safety and environmental issues at colleges and universities. She was instrumental in working with the US Environmental Protection Agency (EPA) to develop proposed rulemaking to make compliance with chemical waste regulations more relevant to colleges and universities. Soon after the US Department of Homeland Security (DHS) issued the Notice of Proposed Rulemaking for the Chemical Facility Anti-Terrorism Standards, Robin was selected to serve on the University Working Group to advise DHS on how to revise and apply the new regulation for the laboratory and campus environment. Ms. Izzo is the Chair of the Coordinating Committee for the EPA College and University Sector Strategy. She is a member of the Board of Directors for the Campus Safety Health and Environmental Management Association, the international association for college and university health and safety professionals. Ms. Izzo holds a B.S. in Mathematics from The University of Vermont and an M.S. in Environmental Sciences from the New Jersey Institute of Technology.

Kenneth A. Jacobson

Member

Dr. Jacobson is Chief of the Molecular Recognition Section of the Laboratory of Bioorganic Chemistry, and Director, Chemical Biology Core Facility, both at NIDDK, National Institutes of Health. He is a member of the NIH Senior Biomedical Research Service. Dr. Jacobson is a medicinal chemist with broad experience in organic synthesis and the specialized needs of pharmaceutical research in an academic/government laboratory setting. He is a "Highly Cited Researcher" in Pharmacology and Toxicology (Institute for Scientific Information). Since coming to NIH in 1983, he has trained 57 postdoctoral fellows, many of whom are synthetic chemists who now hold academic faculty positions. Dr. Jacobson served as Chair of the Medicinal Chemistry Division (membership > 10,000) of the American Chemical Society and has also been a consultant to the pharmaceutical industry.

Karen Maupins

Member

Ms. Maupins is the Team Leader, Health Safety and Environmental in Lilly Drug Discovery Research. In this capacity, she has developed and implemented Industrial Hygiene plans for multiple pharmaceutical manufacturing and R&D laboratory sites. She has also worked to develop corporate technical standards and audit protocols for the worldwide industrial hygiene program. Ms. Maupins holds an M.S. in Industrial Safety and Industrial Hygiene from University of Duluth.

Kenneth G. Moloy

Member

Dr. Moloy is a Research Fellow for E. I. DuPont de Nemours and Company received a Ph.D. (Inorganic Chemistry) from Northwestern University in 1984 and a B.S. (Chemistry) from Indiana University in 1980. Following graduate school he joined Union Carbide Corp. in South Charleston, WV, working in long range R&D. He then moved to DuPont (1995), joining Central Research and Development in Wilmington, DE and where he is now a Research Fellow. Dr. Moloy has experience and expertise in the areas of organometallic chemistry, homogeneous and heterogeneous catalysis, organic chemistry, process chemistry, and material science. Dr. Moloy is an active contributor to laboratory safety at DuPont, having written portions of the DuPont Safety Manual for the greater Wilmington, DE area, participated in the implementation of DuPont's Process Safety Management in Central Research and Development, and serving as a company internal safety trainer, instructor, and consultant.

Randall B. Ogle

Member

Mr. Ogle has been employed with the Oak Ridge National Laboratory for over 20 years, serving as the ESH lead for R&D advanced materials (and corporate Industrial Hygiene Program Manager for 2 years). For the past 5 years he has been the Operations Manager for the Center for Nanophase Materials Sciences, one of 5 U.S. Dept of Energy Nanoscale Science Research Centers. Mr. Ogle has been a lead in developing the DOE guidance on safety with nanomaterials which has been used internationally. He has lectured and presented papers on related topics at national, international, and regional events.

Mr. Ogle has over 30 years of experience in ESH and has been certified in Industrial Hygiene (CIH), certified in Industrial Safety (CSP) and Hazardous Materials Management (CHMM). Randy worked for the University of Alabama for 10 years and was a director of ESH consultation programs. He also worked for federal OSHA.

He has degrees from the University of Virginia, 1974, East Tennessee State University (1977 MSEH), Texas A&M and University of Alabama (Health Sciences). He has been a member of the ANSI Technical Advisory Group to the ISO Technical Committee 229 on Nanotechnologies since its inception.

John Palassis

Member

Mr. Palassis combines 36 years of professional experience of which five were with the private industry and 30 years with the United States federal government in the National Institute for Occupational Safety and Health (NIOSH), a research agency under the Centers for Disease Control and Prevention. At NIOSH, Mr. Palassis developed industrial hygiene air sampling and analytical methods for hazardous chemicals found in the workplace and worked as a safety coordinator. He leads industrial hygiene and occupational safety courses and was the course director for the NIOSH Laboratory Safety course. His current interests and projects involve chemical safety in schools, young worker safety, and safety management systems. He collaborated with federal and non-governmental organizations to develop the newest NIOSH product, School Chemistry Laboratory Safety Guide.. He has published more than 60 papers and chapters in refereed journals of industrial hygiene, safety, and analytical chemistry, the NIOSH Manual of Analytical Methods, NIOSH Health Hazard Evaluation Reports, NIOSH documents, and professional magazines and presented at over 70 national and international conferences.

Mr. Palassis is a diplomate of the American Academy of Industrial Hygiene and a Certified Industrial Hygienist (CIH), a Certified Safety Professional (CSP), and a Certified Hazardous Materials Manager (CHMM). He is a member of the American National Standards Institute ANSI Z490 and the ANSI Z10 Committees. Mr. Palassis is a member of the Management Committee and also of the Communications and Training Methods Committee of the American Industrial Hygiene Association. He is an active member of the organizing Safety Program Development committee of the Ohio Safety Congress, where he frequently presents papers. Mr. Palassis is a consultant to the Air Sampling Instruments Committee of the American Conference of Governmental Industrial Hygienists. Internationally, he collaborates with the World Health Organization (WHO) and with the International Social Safety Association (worldwide federal agencies in OS&H organization). John is a member of the EPA School Chemical Cleanout Campaign (SC3).

Russell W. Phifer

Member

Dr. Phifer is the Principal of WC Environmental, LLC. He has over 25 years of experience in the field of Environmental Health and Safety. His background is varied, and includes management of health and safety on Superfund sites, training of chemists in safety, and consulting on Environmental Health and Safety for lab and industrial facilities. He is the Chair of the American Chemical Society committee on Chemical Safety, Chair-Elect of the American Chemical Society Chemical Health and Safety committee, and a member of many safety-related organizations.

Peter A. Reinhardt

Member

Dr. Reinhardt is the director of the Office of Environmental Health and Safety at Yale University. OEHS is responsible for the University's environmental affairs, industrial hygiene, biological safety and radiation safety. Prior to moving to New Haven in 2007, he was the Director of Environment, Health and Safety at the University of North Carolina at Chapel Hill for six years, and worked for 21 years at the University of Wisconsin-Madison's Safety Department, last serving as their Assistant Director for Chemical & Environmental Safety. He is a member of the American Chemical Society's Task Force on Laboratory Environmental Health and Safety, the Campus Safety, Health and Environmental Management Association's Government Relations Committee, and the Council on Government Relations' Working Groups on Research Security and Export Control. He previously served on two subcommittees of the Committee that wrote the 1995 Prudent Practices in the He has a B.S. and an M.A. from the University of Wisconsin-Madison.

Levi T. Thompson, Jr.

Member

Dr. Thompson is currently the Richard Balzhiser Professor of Chemical Engineering. Other honors and awards include the National Science Foundation Presidential Young Investigator Award, Union Carbide Innovation Recognition Award, Dow Chemical Good Teaching Award, College of Engineering Service Excellence Award, and Harold Johnson Diversity Award. He is co-founder, with his wife Maria, of T/J Technologies, a developer of nanomaterials for advanced batteries and fuel cells. He is also Consulting Editor for the AIChE Journal, and a member of the External Advisory Committee for the Center of Advanced Materials for Purification of Water with Systems (NSF Science and Technology Center at the University of Illinois) and AIChE Chemical Engineering Technology Operating Council. Professor Thompson earned his B.ChE. from the University of Delaware, and M.S.E. degrees in Chemical Engineering and Nuclear Engineering, and a Ph.D. in Chemical Engineering from the University of Michigan. Research in Professor Thompson's group focuses primarily on defining relationships between the structure, composition and function of nanostructured catalytic and electrochemical materials. In addition, he has distinguished himself in the use of micromachining and selfassembly methods to fabricate micro-reactor, hydrogen production and micro-fuel cell systems. Professor Thompson leads a large multidisciplinary team developing compact devices to convert gasoline and natural resources into hydrogen. Recently, he was appointed founding Director of the Hydrogen Energy Technology Laboratory.

Leyte L. Winfield

Member

Dr. Winfield is a synthetic organic chemist employed as a chemistry professor at Spelman College. She has experience in academic, industrial and military laboratories. From the combined experiences she has gained knowledge of diverse procedures relating to laboratory operation and safety. Her experimental background encompasses both instrumental and synthetic techniques.

Dr. Winfield arrived at Spelman College in August of 2003 following the completion of a post-doctoral position at Florida A&M University. While at Florida A&M, she focused on the design and synthesis of compounds targeted to the inhibition of cyclooxygenase-2 (COX-2). Prior to this training, she completed her doctorate at the University of New Orleans. Her tenure at the University of New Orleans afforded her the opportunity to design and synthesize dopamine reuptake inhibitor analogs for potential cocaine abuse therapeutics.

As an Assistant Professor of Chemistry, Dr. Winfield's is currently involved in the development of an Organic Chemistry Laboratory Manual. In addition, her current research involves the development of novel COX-2 inhibitors specifically targeted at inducing apoptosis in cancer cells.